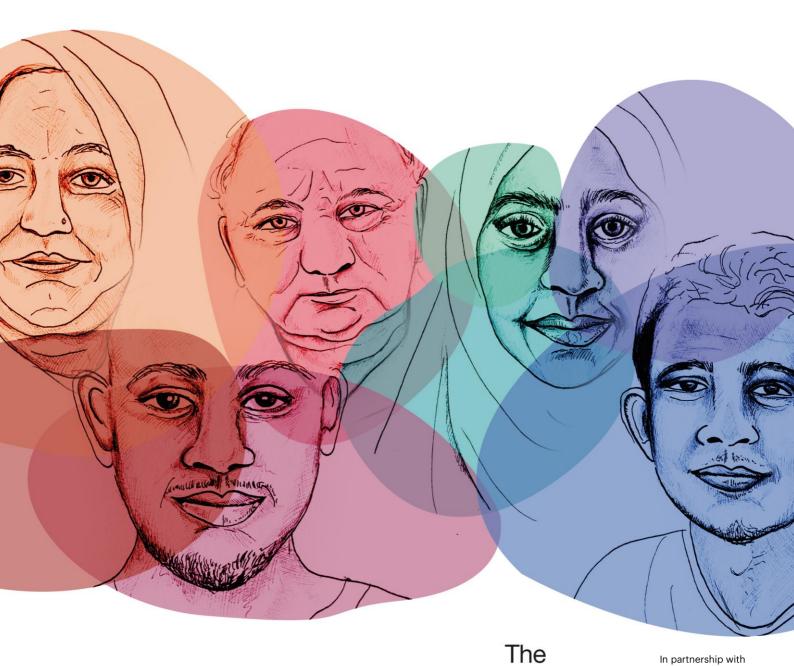
Health equity and multiple long-term conditions

Evidence review

A report from the Taskforce on Multiple Conditions, July 2021



Richmond Group

of Charities

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About this review:

This is a rapid evidence review into the literature on health inequalities and multiple long-term conditions. This evidence review was carried out in December 2020, with minor additions made in May 2021, to inform a piece of research into the lived experience of those facing a range of health inequalities and multiple conditions, in the time of COVID-19. The review aims to synthesise key findings from the literature and identify insights gaps for the research to explore.

Given the breadth of research covering these topics, this is by no means a comprehensive literature review – rather a summary of evidence which was deemed relevant for informing our research.

The review contains five main sections:

- I. Introduction
- 2. Overview of key factors associated with negative health outcomes
- 3. The relationship between socio-economic deprivation and multiple long-term conditions (MLTCs)
- 4. The impact of Covid-19 on those with multiple conditions
- 5. Implications for the research

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Read the report:

You only had to ask: What people with multiple conditions say about health equity

I. Introduction

The NHS defines health inequalities as an umbrella term for "unfair and avoidable differences in health across the population, and between different groups in society". These inequalities play a key role in opportunities for good physical and mental health, and overall wellbeing². They are identified across four main dimensions: socio-economic status; geography; protected characteristics such as ethnicity, sex, disability; and socially excluded groups in society².

Research to date has largely focused on the impact of inequalities on general health and mortality – however, their relationship with multiple long-term conditions more specifically is an area of research that is less developed.

This review covers how different factors affect health outcomes in the UK, followed by a more detailed look at the role of deprivation on MLTCs. The focus on deprivation was drawn from the preliminary research, which highlighted that socio-economic deprivation was one of the most researched factors, with those in lower socio-economic groups being more likely to develop multiple long-term conditions³, as well as its frequent intersection with the other factors that affect health outcomes. This review considers how socio-

NHS England., 2020. Definitions For Health Inequalities. [online] England.nhs.uk. Available at: https://www.england.nhs.uk/ltphimenu/definitions-for-health-inequalities/

² Williams, E., Buck, D. and Babalola, G., 2020. What Are Health Inequalities? [online] The King's Fund. Available at: https://www.kingsfund.org.uk/publications/what-are-health-inequalities

³ The Health Foundation, 2018. Understanding the health care needs of people with multiple conditions. [online] The Health Foundation. Available at: https://www.health.org.uk/sites/default/files/upload/publications/2018/Understanding%20the%20health%20care%20needs%20of%20people%20with%20multiple%20health%20conditions.pdf

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economic deprivation affects the increased risk factors for developing MLTCs, access to and quality of support services, and patients' abilities to manage their conditions.

How Covid-19 has brought health inequalities to public attention

The intersections of social disadvantage have recently gained increased attention, due to the Covid-19 pandemic exposing the health inequalities⁴. Individuals with certain pre-existing health issues were more at risk of suffering negative effects of the virus. This risk was increased for those that had health issues, but also those who were more socio-economically disadvantaged. General patterns show that diagnosed cases of Covid-19 in the UK were higher in the most deprived quintile, and mortality rates in the most deprived areas were more than double the least deprived⁵. Reasons for this included those on lower incomes being more likely to have to continue travelling into work, due to roles in low paid, but essential, industries such as food retail⁶.

The high death toll from Covid-19 among Black and minority ethnic populations has also encouraged a public acknowledgement of health inequalities. In May 2020, NHS England's chief executive Sir Simon Stevens himself stated that "ethnicity and race have been shown to systemically influence our health, independent of factors such as age, sex, and socio-economic status" ⁷. The way these inequalities have impacted the Covid-19 death toll are still being explored, with many publications referring to the overrepresentation of people from Black and ethnic minority communities working on the front line of the pandemic, as well as unequal distribution of socio-economic resources⁸.

2. Groups experiencing health inequalities

The role of specific characteristics such as ethnicity, sex, and disability are also important to consider when discussing health inequalities. Research demonstrates how these factors intersect with socio-economic and geographical factors, leading to higher probabilities of negative health outcomes.

Historically, ethnicity as a driver of health inequality has been neglected in most general population studies, but the issue is recently starting to gain more attention. The last health survey that oversampled for ethnicity was in 2004, and its findings demonstrated that ethnic groups were more likely to report bad health among the older population in England. Out of the respondents aged between 61-70 years old, 86% of people from the Bangladeshi group, 69% of people from the Pakistani group, and 67% of people from the Black Caribbean group reported bad health, compared to only 34% of people from the White English group. This is sustained in a local level study conducted by Guys & St Thomas' charity on health in the borough of Lambeth, which

⁴ NHS England, 2021. Action required to tackle health inequalities in latest phase of COVID-19 response and recovery. [online] England.nhs.uk. Available at: https://www.england.nhs.uk/about/equality/equality-hub/action-required-to-tackle-health-inequalities-in-latest-phase-of-covid-19-response-and-recovery/

⁵ Public Health England, 2020. Disparities in the risk and outcomes of Covid-19. [online] Public Health England. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908434/Disparities_in_the_risk_and_outcomes_of_COVID_August_2020_update.pdf

⁶ The Health Foundation, 2020. Will Covid-19 be a watershed moment for health inequalities?. [online] The Health Foundation. Available at: https://www.health.org.uk/sites/default/files/2020-05/Will%20COVID-19%20be%20a%20watershed%20moment%20for%20health%20inequalities.pdf

⁷ Campbell, D., 2020. Two-thirds of black Britons believe NHS gives white people better care, finds survey. [online] The Guardian. Available at: https://www.theguardian.com/world/2020/sep/07/two-thirds-of-black-britons-believe-nhs-gives-white-people-better-care-finds-survey

⁸ Out, A., Ahinkorah, B.O., Ameyaw, E.K., et al. 2020. One country, two crises: What Covid-19 reveals about health inequalities among BAME communities in the United Kingdom and the sustainability of its health system. International Journal for Equity in Health [online]. Available at: https://equityhealthj.biomedcentral.com/articles/10.1186/s12939-020-01307-z

⁹ Rice, N. and Smith, P., 2001. Ethics and geographical equity in health care. Journal of Medical Ethics, [online]. Available at: https://jme.bmj.com/content/27/4/256

¹⁰ Becares, L., Kapadia, D. and Nazroo, J., 2020. Neglect of older ethnic minority people in UK research and policy. The British Medical Journal, [online] Available at: https://www.bmj.com/content/368/bmj.m212

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found that Black and Asian communities in the area carry a greater burden of multiple long-term conditions¹¹. Similarly, data on infant mortality highlights that the rate of infant mortality was higher than the England average for people from Pakistani, Black African and Black Caribbean groups¹². When assessing this against socio-economic information, which outlines ethnic groups having higher proportions of unemployment compared to white British counterparts, we can identify where these inequalities may intersect with socio-economic factors to result in ethnic communities having worse health outcomes in England¹³ ¹⁴.

While healthy life expectancy is now similar for both males and females ¹⁵, sex is another factor which can lead to health inequalities. For example, the prevalence of behavioural risk factors, such as carrying excess weight and smoking, is higher in men than women (though this data also highlights that inactivity is more prevalent in women than men)¹⁶. More recently, the intersection of race and gender in healthcare outcomes is gaining more attention following reports of Black mothers dying disproportionately from complications relating to childbirth¹⁷. Statistics from the report show that between 2014 and 2016, the rate of maternal death in pregnancy was 8 in 100,000 white women, compared with 15 in 100,000 Asian women and 40 in 100,000 black women.

Sexual orientation or gender identity can also have an impact on health outcomes – with evidence showing that health outcomes are worse for LGBT people than the rest of the population, yet they receive lower levels of care ¹⁸. It has been consistently reported that LGBT populations tend to have higher rates of depression and anxiety, as well as higher rates of alcohol and drug dependency when compared to the general population²⁰. These are often the result of factors that may uniquely affect LGBT people more directly, such as hate crimes and bullying, the social stress of which can lead to a higher prevalence of mental health conditions²².

Disability is also a key characteristic that accounts for health inequalities, according to reports. A study on healthcare needs for people with severe disabilities demonstrated that they face higher odds of having unmet needs. This issue was particularly rife in those trying to access mental healthcare, citing transportation, cost,

¹¹ King's College London, 2018. From one to many Exploring people's progression to multiple long-term conditions in an urban environment. London: Guy's and St Thomas' Charity. [online] Available at: https://www.gsttcharity.org.uk/sites/default/files/GSTTC_MLTC_Report_2018.pdf

¹² GOV.UK. 2017. Chapter 5: Inequality in health. [online] Available at: https://www.gov.uk/government/publications/health-profile-for-england/chapter-5-inequality-in-health

¹³ Ethnicity-facts-figures.service.gov.uk. 2020. People Living In Deprived Neighbourhoods. [online] Available at: https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/demographics/people-living-in-deprived-neighbourhoods/latest

¹⁴Impact on Urban Health. 2020. Multiple Long-Term Conditions - Programmes - Impact On Urban Health. [online] Available at: https://urbanhealth.org.uk/our-work/multiple-long-term-conditions

¹⁵ Raleigh, V., 2018. What is happening to life expectancy in England? [online] kingsfund.org.uk. Available at: https://www.kingsfund.org.uk/publications/whats-happening-life-expectancy-england

¹⁶ GOV.UK. 2017. Chapter 5: Inequality in health. [online] Available at: https://www.gov.uk/government/publications/health-profile-for-england/chapter-5-inequality-in-health

¹⁷ Anekwe, L., 2020. Ethnic disparities in maternal care. The British Medical Journal, [online] Available at: https://www.bmj.com/content/368/bmj.m442>

¹⁸ Hudson-Sharp, N. and Metcalf, H., 2016. Inequality among lesbian, gay, bisexual and transgender groups in the UK: a review of evidence. [online] National Institute of Economic and Social Research. Available at: https://www.niesr.ac.uk/sites/default/files/publications/160719 REPORT LGBT evidence review NIESR FINALPDF.pdf

¹⁹ BBC News. 2019. Ask about sexual orientation to improve LGBT inequalities. [online] Available at: https://www.bbc.co.uk/news/health-50126703

²⁰ Uhrig, S., 2015. Sexual Orientation and Poverty in the UK: A review and top-line findings from the UK household longitudinal study. [online] Journal of Research in Gender Studies. Available at: https://core.ac.uk/download/pdf/74372485.pdf

²¹ Bécares, L. 2020. Health and socio-economic inequalities by sexual orientation among older women in the United Kingdom: Findings from the UK Household Longitudinal Study. [online] Ageing and Society. Cambridge University Press. Available at: <a href="https://www.cambridge.org/core/journals/ageing-and-society/article/abs/health-and-socioeconomic-inequalities-by-sexual-orientation-among-older-women-in-the-united-kingdom-findings-from-the-uk-household-longitudinal-study/D552343504008CD2BD5FF4DB0AC7C281

²² Clayton, H., 2021. Why is the LGBTQ+ community disproportionately affected by mental health problems and suicide? | News and Events. [online] Greater Manchester Mental Health NHS FT. Available at: https://www.gmmh.nhs.uk/news/why-is-the-lgbtq-community-disproportionately-affected-by-mental-health-problems-and-suicide-4240/

²³Meyer, I., 2007. Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence. Psychology Bulletin, [online]. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2072932/

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and waiting lists as specific barriers²⁴. The report highlights how the issue is particularly prevalent for women with disabilities, and that they are seven times more likely than men with no disabilities to report unmet needs. Furthermore, families with a disabled person in the home are significantly more likely to be materially deprived and be in food poverty²⁵. The impact of disability on socioeconomic status demonstrates further how intersections of inequality can impact the health and wellbeing of those individuals.

3. Overview of some of the key factors associated with negative health outcomes

Socio-economic factors

The strong correlation between socio-economic disadvantage and negative health outcomes is one that has been highly considered in research to date²⁶ ²⁷. Some studies in this area have looked more specifically at the role of wealth and higher incomes on wellbeing and mortality, and the relationship between deprivation and lower life expectancy is one that has been consistent in this country for the last few decades²⁸.

Public Health England's latest health strategy for 2020-2025 demonstrates that government bodies are recently keen to tackle the issue, and they introduce the document by emphasising how people in the richest areas in England enjoy nearly 20 more years of good health than the poorest^{29 30}. An Imperial College London study on health, mortality, and socio-economic status, concludes that low socio-economic status (SES) is a risk factor for poor health in and of itself, and it should be targeted alongside conventional risk factors such as smoking and a sedentary lifestyles as part of national health strategies, which appears to finally be taking hold³¹.

There have been several theories put forward as to why this may be, especially when assessing the higher probability of risk factors for negative health in disadvantaged areas, such as BMI and smoking. Several population health studies have drawn attention to the fact that those with lower socio-economic status face a higher risk of obesity, in both adults and children³² 33 34. There are many factors at play here, but one

²⁴ Sakellariou, D. and Rotarou, E., 2017. Access to healthcare for men and women with disabilities in the UK: secondary analysis of cross-sectional data. The British Medical Journal, [online] Available at: https://bmjopen.bmj.com/content/7/8/e016614.info

²⁵ Equality and Human Rights Commission, 2017. Being disabled in Britain: A journey less equal. [online] Equality and Human Rights Commission. Available at: https://www.equalityhumanrights.com/sites/default/files/being-disabled-in-britain.pdf

²⁶ Levay, K., Gibbons, C., Down, L., O'Neil, M. and Volmert, A., 2018. Only Part Of The Story: Media And Organisational Discourse About Health In The United Kingdom. [online] Available at: https://www.frameworksinstitute.org/publication/only-part-of-the-story-media-and-organisational-discourse-about-health-in-the-united-kingdom/

²⁷ The Health Foundation. 2018. People In Most Deprived Areas Of England Develop Multiple Health Conditions 10 Years Earlier Than Those In Least Deprived. The Health Foundation. [online] Available at: https://www.health.org.uk/news-and-comment/news/people-in-most-deprived-areas-of-england-develop-multiple-health-conditions-10-years

²⁸ Farand, C., 2017. Women Spend Three More Years Of Their Life In Poor Health Than Men, Major Report Finds. The Independent [online]. Available at: https://www.independent.co.uk/news/health/womens-health-compared-men-poor-condition-life-new-report-public-health-england-a7840016.html

²⁹ Public Health England, 2019. PHE Strategy 2020-2025. [online] Available at:
<a href="https://assets.publishing.service.gov.uk/government/uploads/system/upload

³⁰ Local Government Association, 2021. *Marmot Review report* – 'Fair Society, Healthy Lives. [online] Available at: https://www.local.gov.uk/marmot-review-report-fair-society-healthy-lives.

³¹ Brogan, C., 2017. Early Death And III Health Linked To Low Socio-economic Status. Imperial College London. [online] Available at: ">https://www.imperial.ac.uk/news/177249/early-death-health-linked-socio-economic-status/#:~:text=Factors%20linked%20to%20socio-economic%20status.and%20harmful%20use%20of%20alcohol>">https://www.imperial.ac.uk/news/177249/early-death-health-linked-socio-economic-status/#:~:text=Factors%20linked%20to%20socio-economic%20status.and%20harmful%20use%20of%20alcohol>">https://www.imperial.ac.uk/news/177249/early-death-health-linked-socio-economic-status/#:~:text=Factors%20linked%20to%20socio-economic%20status.and%20harmful%20use%20of%20alcohol>">https://www.imperial.ac.uk/news/177249/early-death-health-linked-socio-economic-status/#:~:text=Factors%20linked%20to%20socio-economic%20status.and%20harmful%20use%20of%20alcohol>">https://www.imperial.ac.uk/news/177249/early-death-health-linked-socio-economic-status/#:~:text=Factors%20linked%20to%20socio-economic%20status.and%20harmful%20use%20of%20alcohol>">https://www.imperial.ac.uk/news/177249/early-death-health-linked-socio-economic-status/#:~:text=Factors%20linked%20to%20socio-economic%20status.and%20harmful%20use%20of%20alcohol>">https://www.imperial.ac.uk/news/177249/early-death-health-linked-socio-economic-status/#:~:text=Factors%20linked%20to%20socio-economic%20status.and%20harmful%20use%20of%20alcoholor%20socio-economic%20status.and%20harmful%20use%20of%20alcoholor%20socio-economic%20status.and%20harmful%20use%20of%20alcoholor%20status.and%20harmful%20use%20of%20alcoholor%20status.and%20harmful%20use%20of%20alcoholor%20status.and%20harmful%20use%20of%20alcoholor%20status.and%20harmful%20use%20of%20alcoholor%20status.and%20harmful%20use%20of%20alcoholor%20status.and%20harmful%20use%20of%20alcoholor%20status.and%20harmful%20use%20of%20alcoholor%20use%20

³² Sun, Y., Hu, X., Huang, Y. and Chan, T., 2020. Spatial Patterns of Childhood Obesity Prevalence in Relation to Socio-economic Factors across England. ISPRS Int. J. Geo-Inf., [online] Available at: https://www.mdpi.com/2220-9964/9/10/599>

³³ Mayor, S., 2017. Socio-economic disadvantage is linked to obesity across generations, UK study finds. The British Medical Journal, [online] Available at: https://www.bmj.com/content/356/bmj.j163

³⁴ Booth, H., Charlton, J. and Gulliford, M., 2017. Socio-economic inequality in morbid obesity with body mass index more than 40 kg/m2 in the United States and England. SSM Population Health. Department of Primary Care and Public Health Sciences, King's College London, [online] Available at: https://www.sciencedirect.com/science/article/pii/S2352827316301896

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examination revealed that unhealthy weight is a consistent pattern among those that experience food insecurity³⁵. In addition to this, a nationwide study on smoking among adults found that the biggest predictor of smoking behaviour was housing tenure, and those who did not own their homes were twice as likely to smoke compared to homeowners³⁶. The study also found further associations between socio-economic group, income, and educational qualifications on a persons likelihood of smoking. Education and income have also been shown to correspond with depressive episodes, insomnia, BMI and an individual's self-rated health³⁷.

Studies assessing the impact of housing and neighbourhood conditions have identified them as determinants of health outcome. Due to patterns of higher levels of crime and social disorder in urban areas, residents there often report higher levels of stress³⁸. This, compounded with the lack of access to green spaces in deprived urban communities has been shown to impact mental and physical wellbeing³⁹. Not only this, but poor living conditions such as damp and cold housing have been linked to several health problems, particularly respiratory conditions⁴⁰. A study that monitored residents moving from a high poverty neighbourhood to a low poverty neighbourhood found that not only did their mental health improve, but obesity levels also dropped, as residents were more likely to be active in less threatening outdoor environment. Data from PHE also demonstrates that fast-food is five times more likely to be found in poorer neighbourhoods in England, which is a direct influence on the obesity levels in these areas⁴¹.

Geographical factors

It is widely understood that urban environments have adverse effects on the health of communities. However, those living in urban environments often have better access to services that patients may need. A 25-year study on healthcare services in England noted that London had relatively low mortality rates for its levels of deprivation for some boroughs⁴². A reason for this was stated as the increased funding of healthcare in the capital, in comparison to other areas in England such as the North East and West. Patients in more rural towns not only face the obstacle of underfunded healthcare, but also inaccessible travel in those areas which makes it harder to physically access the services they need, reporting that they often feel 'overlooked'⁴³ ⁴⁴. For those with MLTCs this is particularly troublesome, due to the 'treatment burden' of multiple appointments and healthcare visits required to manage conditions⁴⁵.

³⁵ Adams, J., 2020. Addressing socio-economic inequalities in obesity: Democratising access to resources for achieving and maintaining a healthy weight. Plos Medicine, [online] Available at: https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003243

³⁶ Beard, E., Brown, J., Jackson, S., West, R., Kock, L., Boniface, S. and Shabab, L., 2020. Independent Associations Between Different Measures of Socio-economic Position and Smoking Status: A Cross-Sectional Study of Adults in England. Nicotine & Tobacco research, [online] Available at: https://academic.oup.com/ntr/advance-article/doi/10.1093/ntr/ntaa030/5728574

³⁷ Assari, S., Nikahd, A., Malekahmadi, M., Lankarani, M. and Zamanian, H., 2016. Race by Gender Group Differences in the Protective Effects of Socio-economic Factors Against Sustained Health Problems Across Five Domains. Journal of Racial and Ethnic Health Disparities, [online]. Available at: https://link.springer.com/article/10.1007/s40615-016-0291-3

³⁸ Gibson, M., Petticrew, M., Bambra, C., Sowden, A., Wright, K. and Whitehead, M., 2011. Housing and health inequalities: A synthesis of systematic reviews of interventions aimed at different pathways linking housing and health. Health & Place. [online] Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3098470/

³⁹ Douglas, K. and Douglas, J., 2021. Green spaces aren't just for nature – they boost our mental health too. [online] New Scientist. Available at: https://www.newscientist.com/article/mg24933270-800-green-spaces-arent-just-for-nature-they-boost-our-mental-health-too/

⁴⁰ Clair, A. and Tinson, A., 2020. Better housing is crucial for our health and the COVID-19 recovery. The Health Foundation. [online] Available at: https://www.health.org.uk/publications/long-reads/better-housing-is-crucial-for-our-health-and-the-covid-19-recovery

⁴¹ GOV.UK. 2018. England's poorest areas are fast food hotspots. [online] Available at: https://www.gov.uk/government/news/englands-poorest-areas-are-fast-food-hotspots

⁴² Steel, N., Ford, J.A., Newton, J.N., Davis, A.C., Vos, T., Naghavi, M., Glenn, S., Hughes, A., Dalton, A.M., Stockton, D. and Humphreys, C., 2018. Changes in health in the countries of the UK and 150 English Local Authority areas 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. The Lancet, 392(10158), pp.1647-1661.

⁴³ Rice, N. and Smith, P., 2001. *Ethics and geographical equity in health care*. Journal of Medical Ethics, [online] Available at: https://jme.bmj.com/content/27/4/256

⁴⁴ Davis, N., 2017. Rural Deprivation And Ill-Health In England 'In Danger Of Being Overlooked'. The Guardian [online]. Available at: https://www.theguardian.com/society/2017/mar/18/rural-deprivation-and-ill-health-in-england-in-danger-of-being-overlooked

⁴⁵ Brighton and Hove Clinical Commissioning Group, 2021. Adults with Multiple Long Term Conditions in Brighton and Hove, Executive Summary. [online] Available at: http://www.bhconnected.org.uk/sites/bhconnected/files/B%26H%20MLTC%20]SNA%202018%20Exec%20Summary%20FINAL.pdf

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Despite urban cities having better means of access to healthcare services once ill, they still face higher risks of getting ill much earlier than those in rural areas. The geographical factors such as frequent exposure to polluted air in urban environments has been linked to increased mortality rates from lung conditions⁴⁶. The UK's first official ruling of death by excessive exposure to air pollution was concluded recently, after the death of a young girl in Lewisham, London⁴⁷. Government health profiles have also cited the lack of green spaces in cities as a detriment to both physical and mental wellbeing in urban spaces⁴⁸.

Socially excluded groups

Demographic studies into socially excluded groups, such as people who are homeless, vulnerable migrants and traveller communities, show that there is an increased risk of ill mental and physical health⁴⁹. For example, a health needs audit of the homeless population across England found that 80% were experiencing mental health problems, and that homeless people are fourteen times more likely to die by suicide ⁵⁰. Not only this, but an increased probability of risk factors such as smoking, alcohol and drug use also make them more vulnerable to physical health problems⁵¹. Other socially excluded groups such as asylum seekers and refugees are also at increased risk of experiencing depression, PTSD, and other anxiety disorders, which could often be a result of their pre-migration situation, the post-migration conditions they arrive in, or both⁵².

4. The relationship between socio-economic deprivation and multiple conditions

When exploring the relationship between health inequalities and MLTCs, socio-economic deprivation was the most prominently researched and accounted for factor. The following section will assess the role that deprivation has on increased risk factors for MLTCs, the effect of deprivation on access to support once these conditions develop, and how deprivation affects individuals' abilities to manage their multiple conditions.

A summary of risk factors for developing MLTCs relating to health inequalities

There are several risk factors that interrelate with the development of multiple long-term health conditions more specifically. Literature on the topic looks most at obesity, smoking, sedentary lifestyle, and drug and alcohol abuse as the most common risk factors for the development of MLTCs. What is key to note here, however, is the relationship between deprivation and these risk factors, and how this concurrently informs the higher presence of MLTCs in socio-economically deprived areas.

⁴⁶ Committee on the Medical Effects of Air Pollutants, 2010. The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom. Health Protection Agency [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/304641/COMEAP_mortality_effects_of_long_term_exposure.pdf

⁴⁷ Marshall, C., 2020. Air pollution death ruling: What comes next?. BBC News [online]. Available at: https://www.bbc.co.uk/news/science-environment-55352247

⁴⁸ Public Health England, 2018. Chapter 6: Wider Determinants Of Health. Health Profile for England: 2018. [online]. Available at: https://www.gov.uk/government/publications/health-profile-for-england-2018/chapter-6-wider-determinants-of-health#the-built-and-natural-environment

⁴⁹Campos-Matos, I., Stannard, J., de Sousa, E., O'Connor, R. and Newton, J., 2019. From health for all to leaving no-one behind: public health agencies, inclusion health, and health inequalities. The Lancet Public Health [online] Available at: https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(19)30227-0/fulltext

⁵⁰ Homeless Link. 2021. Health Needs Audit - explore the data. [online] Available at: https://www.homeless.org.uk/facts/homelessness-in-numbers/health-needs-audit-explore-data

⁵¹ Institute of Medicine (US) Committee on Health Care for Homeless People. Homelessness, Health, and Human Needs. Washington (DC): National Academies Press (US); Health Problems of Homeless People. Available at: https://www.ncbi.nlm.nih.gov/books/NBK218236/

⁵² Mental Health Foundation. 2016. Mental health statistics: refugees and asylum seekers. [online] Available at: https://www.mentalhealth.org.uk/statistics/mental-health-statistics-refugees-and-asylum-seekers#:~:text=Asylum%20seekers%20and%20refugees%20are,PTSD%20and%20other%20anxiety%20disorders.

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Obesity is commonly considered as a key risk factor in the development of many illnesses and health problems in both children and adults⁵³, as well as a leading cause of diabetes, which is often understood a common precursor of MLTCs⁵⁴. Considering this, it is important to understand the relationship that obesity and diet has with deprivation, as it also has strong associations with low socio-economic status⁵⁵ ⁵⁶. As healthy diets tend to be more expensive and time consuming, individuals that are under financial constraint end up being more likely to turn to lower-quality, less healthy diets, increasing their risk of obesity⁵⁷. A recent study by the Food Foundation found that the poorest families in the UK struggled to meet the healthy food guidelines set by government, and that 4 million children as a result were "unlikely to be able to afford a healthy and balanced diet" ⁵⁸. Recent reports on appliance poverty demonstrate that 4.8 million people, 6% of households, are living without either a cooker, fridge, freezer, or washing machine ⁵⁹, and disabled people are three times as likely to be affected by this. This lack of access to food storage or preparation often means that people are unable to make dietary decisions based on health, but rather convenience and ease.

It is also widely reported that smoking is a key risk factor of negative health and the development of MLTCs, and several studies have highlighted smoking is strongly associated with comorbidities and higher frequencies of hospitalisations⁶⁰ ⁶¹. Like the numbers on obesity, smoking is shown as more prevalent among the poorer communities in England, and an analysis by the Office for National Statistics found that people in the most deprived areas were four times more likely to smoke than those in the least deprived⁶². A detailed study on the smoking patterns by housing tenure in England found smokers in social housing consumed more cigarettes daily compared to those in more secure housing, or homeowners⁶³. This information maintains that there is a higher likelihood of risk factors for MLTCs among socio-economically deprived populations.

The relationship between deprivation and risk factors was the focus on a borough specific study of MLTCs by Guys & St. Thomas' Charity. The study was conducted in Lambeth, London, where almost half of the population is reported to be living in poverty. They found that 79% of those in the borough with MLTCs had one or more risk factors, and 60% were living with four risk factors, a combination of smoking, high cholesterol, and obesity⁵⁴ above⁵⁴. The study also highlighted that the borough's Black population were 50% more likely to acquire three or more long term conditions.

⁵³ Sun, Y., Hu, X., Huang, Y. and On Chan, T., 2020. Spatial Patterns of Childhood Obesity Prevalence in Relation to Socioeconomic Factors across England. ISPRS International Journal of Geo-Information [online] Available at: https://www.mdpi.com/2220-9964/9/10/599

⁵⁴ King's College London, 2018. From one to many Exploring people's progression to multiple long-term conditions in an urban environment. London: Guy's and St Thomas' Charity. [online] Available at: https://www.gsttcharity.org.uk/sites/default/files/GSTTC_MLTC_Report_2018.pdf

⁵⁵ Booth, H., Charlton, J. and Gulliford, M., 2017. Socioeconomic inequality in morbid obesity with body mass index more than 40 kg/m2 in the United States and England. SSM - Population Health [online] Available at: https://www.sciencedirect.com/science/article/pii/S2352827316301896

⁵⁶ Mayor, S., 2017. Socioeconomic disadvantage is linked to obesity across generations, UK study finds. BMJ [online] Available at: https://www.bmj.com/content/356/bmj.j163

⁵⁷ Adams, J., 2020. Addressing socioeconomic inequalities in obesity: Democratising access to resources for achieving and maintaining a healthy weight. PLOS Medicine [online] Available at: https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003243

⁵⁸ Food Foundation, 2018. Millions of UK children are impacted by food poverty. [online] Available at: https://foodfoundation.org.uk/millions-of-uk-children-are-impacted-by-food-poverty/

⁵⁹ Family Fund. 2020. New report highlights crisis of appliance poverty. [online] Available at: https://www.familyfund.org.uk/news/new-report-highlights-crisis-of-appliance-poverty

⁶⁰ Zeh, P., Sandhu, H., Cannaby, A. and Sturt, J., 2014. Cultural barriers impeding ethnic minority groups from accessing effective diabetes care services: a systematic review of observational studies. Diversity & Equality in Health and Care [online] Available at: https://diversityhealthcare.imedpub.com/cultural-barriers-impeding-ethnic-minority-groups-from-accessing-effective-diabetes-care-services-asystematic-review-of-observational-studies.php?aid=1595

⁶¹ Tommola, M., Ilmarinen, P., Tuomisto, L., Lehtimäki, L., Niemelä, O., Nieminen, P. and Kankaanranta, H., 2019. *Cumulative effect of smoking on disease burden and multimorbidity in adult-onset asthma*. European Respiratory Journal [online] Available at: https://erj.ersjournals.com/content/erj/early/2019/04/25/13993003.01580-2018.full.pdf

⁶² Office for National Statistics, 2018. Likelihood of smoking four times higher in England's most deprived areas than least deprived - Office for National Statistics. [online] Available at:

https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/drugusealcoholandsmoking/articles/likelihoodofsmokingfourtimeshig herinenglandsmostdeprivedareasthanleastdeprived/2018-03-14#:~:text=than%20least%20deprived_Likelihood%20of%20smoking%20four%20times%20higher%20in,deprived%20areas%20than%20least%20deprived&text=People%20living%20in%20 the%20most,in%20the%20least%20deprived%20areas.

⁶³ Jackson, S., Smith, C., Cheeseman, H., West, R. and Brown, J., 2019. Finding smoking hot-spots: a cross-sectional survey of smoking patterns by housing tenure in England. Addiction [online] Available at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/add.14544

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When looking at the relationship between deprivation and MLTCs we cannot ignore the effect of this on ethnic communities, and how they may be more at risk of risk factors relating to MTLCs. Data shows all ethnic groups are more likely to live in deprived areas in England than their White British counterparts⁶⁴. Not only this, but mixed ethnicity, Pakistani/Bangladeshi, Indian, Black/Black British, and other ethnic groups score higher levels of unemployment than the white British population, and in 2018/19, the proportion of Black/Black British adults in unemployment were two times higher than the white British population⁶⁵. This link between socio-economic disadvantage and ethnicity adds to our understanding of why Black and minority ethnic populations in England are more likely to also develop MLTCs, and at a younger age⁶⁶ ⁶⁷. Additionally, data shows that Black African, Black Caribbean, and South Asian groups such as Indian, Pakistani, and Bangladeshi, have a higher risk of developing diabetes, one of the key precursor conditions for MLTCs⁶⁸.

With Imperial College London's recent research bringing to light that socio-economic deprivation is a risk factor itself for MLTCs, it is important to think about how this affects the ethnic minority groups in England disproportionately.

The effect of health inequalities on access and quality of support / services provided for those with MLTCs

A lot of the literature on MLTCs highlights that many individuals report feeling that their needs are not being met by the health service⁶⁹.

The issue of unmet needs is particularly present for those that live in deprived areas, and research on patient records found that those with MLTCs in disadvantaged areas get shorter consultation appointments than those in advantaged areas⁷⁰. This is understood as the "inverse care law", where those who most need healthcare are the ones that are also least likely to receive it^{71 72}. In addition to shorter appointment times with GPs, another reason why the inverse care law may occur, is because clinicians and healthcare professionals in deprived areas find it harder to manage their patients due to high demands and low capacity. An epidemiological study on MLTCs found that clinicians in deprived areas treat a higher number of patients that have a greater number of physical and mental conditions compared to those working in affluent areas⁷³. This makes it harder for those suffering MLTCs in deprived areas to get access to quality care, as their healthcare systems typically are more overwhelmed and cannot provide them the best service possible⁷⁴.

⁶⁴ GOV.UK, 2020. People living in deprived neighbourhoods. [online] Available at: https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/demographics/people-living-in-deprived-neighbourhoods/latest

⁶⁵ The Health Foundation. n.d. Employment and unemployment [online] Available at: https://www.health.org.uk/news-and-comment/charts-and-infographics/unemployment

⁶⁶ Public Health England, 2020. Beyond the data: Understanding the impact of COVID-19 on BAME groups. Public Health England. [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/892376/COVID_stakeholder_engagement_synth esis_beyond_the_data.pdf

⁶⁷ Khunti, K., Singh, A., Pareek, M. and Hanif, W., 2020. Is ethnicity linked to incidence or outcomes of covid-19?. BMJ [online] Available at: https://www.bmj.com/content/369/bmj.m1548/rr-9

⁶⁸ Diabetes UK, n.d. Ethnicity and type 2 diabetes. [online] Diabetes UK. Available at: https://www.diabetes.org.uk/preventing-type-2-diabetes/diabetes-ethnicity#:~:text=People%20from%20Black%20African%2C%20African,others%20that%20you%20can't.

⁶⁹ Rolewicz, L., Keeble, E., Paddison, C. and Scobie, S., 2020. Are the needs of people with multiple long-term conditions being met? Evidence from the 2018 General Practice Patient Survey. BMJ Open [online] Available at: https://bmjopen.bmj.com/content/10/11/e041569

⁷⁰ Gopfert, A., Deeny, S., Fisher, R. and Stafford, M., 2020. Primary care consultation length by deprivation and multimorbidity in England: an observational study using electronic patient records. British Journal of General Practice. [online] Available at: https://bjgp.org/content/bjgp/early/2020/12/03/bjgp20X714029.full.pdf

⁷¹ Appleby, J. and Deeming, C., 2001. *Inverse care law.* [online] kingsfund.org. Available at: https://www.kingsfund.org.uk/publications/articles/inverse-care-law

⁷² Moffat, K. and Mercer, S., 2015. Challenges of managing people with multimorbidity in today's healthcare systems. BMC Family Practice, [online] Available at: https://bmcfampract.biomedcentral.com/articles/10.1186/s12875-015-0344-4

⁷³ Barnett, K., Mercer, S., Norbury, M., Watt, G., Wyke, S. and Guthrie, B., 2012. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. The Lancet [online] Available at: https://www.sciencedirect.com/science/article/pii/S0140673612602402

⁷⁴ The Nuffield Trust. 2020. Poorest get worse quality of NHS care in England, new research finds. [online] Available at: https://www.nuffieldtrust.org.uk/news-item/poorest-get-worse-quality-of-nhs-care-in-england-new-research-finds

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Additional research has shown that the issue of unmet needs is exacerbated for ethnic minority groups where language and cultural barriers may limit their access to care^{75 76 77}. This can be for a multitude of reasons, for example a healthcare professional's own personal anxieties about cultural boundaries. A qualitative study conducted with healthcare professionals in the Midlands area, found that they felt a lot of apprehension when responding to the needs of patients of ethnicities different from their own, fearing a situation where they might be culturally inappropriate, or might appear discriminatory⁷⁵. According to the British Medical Journal, language barriers and issues with family members translating rather than a professional translator, can also often result in later diagnoses and medical miscommunication, further delaying access to support or services⁷⁸. This is reflected in national GP Patient Surveys, and in 2018 Asian patients were most likely to report that their needs were not being met⁷⁹.

It is also important here to explore the relationship between long term conditions and mental health. There is a strong pattern of those with chronic conditions developing mental health disorders soon after diagnosis, often either as a reaction to being unwell, or as a side affect of medication taken to manage the chronic condition⁸⁰. This emotional cost to being unwell is often downplayed in light of the physical conditions the patient has, or taken less seriously whilst treatment focuses primarily on managing physical health⁸¹. This makes a stronger case for the healthcare of patients with MLTCs to be treated more holistically, as mental illness also impact patient self-management of conditions by affecting their motivation to access services, support, or self-manage the day-to-day of their health⁸². This is crucial to consider, especially in the window of time where a long-term condition progresses into multiple long-term conditions where patient mental health may impact this development.

The effect of health inequalities on people's strategies and abilities to manage having MLTCs

Many people with MLTCs have also described that the lack of support from family, employers or the community is an obstacle in their ability to manage their wellbeing.

Those working in jobs that worsen their condition, or those unable to find suitable employment because of their MLTCs, find that this socio-economic disadvantage worsens their situations even more⁷⁹. Those with disabilities and long-term health conditions have the lowest employment rates out of any group, and often find that their conditions deteriorate even further because of this, due to elevated rates of mental health conditions that come from financial insecurity⁸³.

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⁷⁵ Kai, J., Beavan, J., Faull, C., Dodson, L., Gill, P. and Beighton, A., 2007. *Professional Uncertainty and Disempowerment Responding to Ethnic Diversity in Health Care: A Qualitative Study.* PLoS Medicine [online] Available at: https://pubmed.ncbi.nlm.nih.gov/18001148/

⁷⁶ Rimmer, A., 2020. Can patients use family members as non-professional interpreters in consultations? BMJ. https://www.bmj.com/content/368/bmj.m447

⁷⁷ Zeh, P., Sandhu, H., Cannaby, A. and Sturt, J., 2014. Cultural barriers impeding ethnic minority groups from accessing effective diabetes care services: a systematic review of observational studies. Diversity & Equality in Health and Care. [online] Available at: <a href="https://diversityhealthcare.imedpub.com/cultural-barriers-impeding-ethnic-minority-groups-from-accessing-effective-diabetes-care-services-asystematic-review-of-observational-studies.php?aid=1595

⁷⁸ Rimmer, A., 2020. Can patients use family members as non-professional interpreters in consultations? BMJ. https://www.bmj.com/content/368/bmj.m447

⁷⁹ Rolewicz, L., Keeble, E., Paddison, C. and Scobie, S., 2021. Are the needs of people with multiple long-term conditions being met? Evidence from the 2018 General Practice Patient Survey. [online] Available at: https://bmjopen.bmj.com/content/10/11/e041569

Nimh.nih.gov. n.d. Chronic Illness and Mental Health: Recognizing and Treating Depression. [online] Available at: https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health/#:~:text=Health%20Care%20Provider.-,People%20with%20other%20chronic%20medical%20conditions%20are%20at%20higher%20risk,long%2Dlasting%20or%20persistent).

⁸¹ Turner, J., 2000. Emotional dimensions of chronic disease. Western Journal of Medicine. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1070773/

⁸² Naylor, C., Parsonage, M., McDaid, D., Knapp, M., Fossey, M. and Galea, A., 2012. Long-term conditions and mental health The cost of co-morbidities. [online] Available at: https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/long-term-conditions-mental-health-cost-comorbidities-naylor-feb12.pdf

⁸³Public Health England, 2014. Local action on health inequalities: Increasing employment opportunities and retention for people with a long-term health condition or disability. [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/355781/Briefing5c_Employment_of_disabled_pe

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In addition to this, many people with MLTCs often feel like management of their illnesses is out of their control due to social and economic deprivation. The triggers for chronic conditions can be rooted in socio-economic disadvantages themselves, for example, poor housing. An example of this is provided in a qualitative study on MLTCs by Guys & St Thomas' charity. In this, one respondent explained that due to the damp housing in the estate she lived in, she would suffer chronically from bronchitis, but socio-economic disadvantages meant she could not afford to move out to get away from the poor conditions that were making her ill⁵⁴. This applies also to disadvantaged people with MLTCs that live in highly urbanised areas and must balance managing their illness whilst existing in an environment that continues to make them sick. High levels of air pollution in urban spaces has repeatedly been cited as a trigger for various heart and lung conditions, and disadvantaged communities concentrated in high polluted areas often will not have the means to move away to spaces with cleaner air⁸⁴.

5. The impact of Covid-19 on those with multiple conditions

Covid-19, and the associated lockdown measures, has exacerbated the challenges that individuals living with MLTCs face. In addition to the direct effect of increased mortality rates from Covid-19 for those with certain conditions⁸⁵, the pandemic has affected people's ability to manage their conditions and overall wellbeing.

Disruption to services for those with long term and chronic conditions is the most noted obstacle in healthcare management under the pandemic. Before it started, the NHS was already under pressure for those with LTCs, and this ended up crumbling completely when staff had to be redeployed to support Covid-19 services⁸⁶. This suspension of services and lack of staff had a negative effect on many individuals suffering from illnesses such as hypertension, diabetes, and cancer, as a lot of treatments were delayed⁸⁷.

The fear of catching the virus increased anxiety for individuals with MLTCs, who worried that their conditions would make them more vulnerable to Covid-19. The Health Foundation highlights this in assessing the reasons why some individuals chose to not access care or treatment for their illnesses out of fear of catching the virus⁸⁶. A similar study by Asthma UK and the British Lung Foundation found that almost a quarter of those with long term lung conditions found themselves having to manage exasperations to their illness on their own, as they did not want to 'overburden' the healthcare services during a pandemic⁸⁸. Moreover, for the 2 million people in the UK who were told to shield, many of whom had multiple conditions, experiences of loneliness and poor wellbeing were common⁸⁹. For those shielding there was also additional stress involved in being able to buy food, pick up medication and do their jobs⁹⁰.

There were also individuals with MLTCs who found that they were unable to effectively protect themselves during the pandemic, resulting in increased anxieties over the catching the virus. A report by Guys & St Thomas' charity brings to light the socio-economic privilege that has a role in whether a vulnerable person can successfully shield themselves during the pandemic. Many people that suffer from MLTCs that are also on low

⁸⁴ Public Health England, 2018. Health profile for England: Chapter 6: wider determinants of health. [online] Available at: https://www.gov.uk/government/publications/health-profile-for-england-2018/chapter-6-wider-determinants-of-health#the-built-and-natural-environment.

⁸⁵ Public Health England, 2020. Disparities in the risk and outcomes of COVID-19. [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908434/Disparities_in_the_risk_and_outcomes_of_COVID_August_2020_update.pdf

⁸⁶ Thorlby, R., Watt, T. and Charlesworth, A., 2021. Early insight into the impacts of COVID-19 on care for people with long-term conditions | The Health Foundation. [online] The Health Foundation. Available at: https://www.health.org.uk/news-and-comment/blogs/early-insight-into-the-impacts-of-covid-19-on-care-for-people-with-long-term

⁸⁷ WHO. 2020. COVID-19 significantly impacts health services for noncommunicable diseases. [online] Available at: https://www.who.int/news/item/01-06-2020-covid-19-significantly-impacts-health-services-for-noncommunicable-diseases

⁸⁸ British Lung Foundation. n.d. Over a third of people with lung conditions felt pressure to avoid or delay seeking treatment during lockdown - British Lung Foundation. [online] Available at: https://www.blf.org.uk/taskforce/press-release/over-a-third-of-people-with-lung-conditions-felt-pressure-to-avoid-or-delay-seeking-treatment

⁸⁹ Groarke, J., Berry, E., Graham-Wisener, L., McKenna-Plumley, P., McGlinchey, E. and Armour, C., 2020. Loneliness in the UK during the COVID-19 pandemic: Cross-sectional results from the COVID-19 Psychological Wellbeing Study. PLOS ONE [online] Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7513993/

⁹⁰ Richmond Group of Charities: Taskforce on Multiple Conditions, 2020. The Multiple Conditions Guidebook: One Year On. Guys & St Thomas' Charity. [online] Available at: https://richmondgroupofcharities.org.uk/sites/default/files/the_multiple_conditions_guidebook_-
_one_year_on_december_2020_taskforce_2020_report_digital_ad_v2_1.pdf

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incomes found it more challenging to reduce their exposure to Covid-19 as financial difficulties often meant that they had to return to work despite the health risks involved in doing so⁹¹. Additionally, a report by the BMJ found that older groups with chronic conditions in middle-to-low-income countries were unable to effectively shield due to living in dense housing with multiple generations at their side⁹². This is a particular risk for Black and minority ethnic communities in the UK as they are most likely to live in multigenerational homes⁹³. In addition to this, a disproportionate number of Black and minority ethnic people have also had the added impact of financial disadvantage, and are less likely to work in roles that facilitate working from home The data also highlights that the overrepresentation of Black and minority ethnic groups in key worker and public facing roles meant that they were at higher risk of exposure to the virus⁹⁴.

While the virus has posed many challenges to those with multiple conditions, the responses to the pandemic have not been entirely negative, however. For those who were able to shield and have adaptations in place to comfortable be at home, the restrictions were reportedly seen as an advantage. National Voices' report on health and care during the pandemic found that many patients with MLTCs identified the slower pace of life under lockdown as a benefit in managing their health⁹⁵. In the report, those that were able to work from home, as opposed to having to commute, have noted it as a highly positive thing. The time and effort saved from commuting has reduced their stress and allowed them to invest more time in managing their illnesses.

However, the same report details that for those that are highly reliant on physical services such as physiotherapy found the Covid-19 restrictions just posed a further barrier to their health management. Furthermore, the digitisation of health services over the pandemic has exacerbated the ongoing digital divide in the UK, particularly the older population, groups of lower social grade and educational attainment ⁹⁶. As a result, groups that are at a higher likelihood of developing MLTCs, and who are already experiencing a treatment burden are likely to find that their anxiety around managing healthcare increased due not having access to the technology to support it. Recent research on digital exclusion also identifies mental health service users as having a higher likelihood of being digitally excluded, meaning that remote forms of accessing treatment such as video calls would not be accessible for them ⁹⁷ ⁹⁸.

6. Implications for the research

We recognise that the experience of facing health inequity is complex, with many factors overlapping and manifesting in different ways for different groups. While a large body of evidence exists which documents these health inequalities, there appears to be less research into how these factors interrelate and manifest to affect an individual's health outcomes. In regard to MLTCs more specifically, the research review presents the different ways in which MLTCs can be both a cause and a consequence of health inequalities.

We have focused our primary research on exploring how exactly these factors interrelate and manifest to affect several individuals who have multiple conditions.

⁹¹ Martyres, R., 2020. Protecting finances protects health - Impact on Urban Health. [online] Impact on Urban Health. Available at: https://urbanhealth.org.uk/insights/opinion/financial-shields-covid-19-protect-health

⁹² Lloyd-Sherlock, P., Ebrahim, S., Geffen, L. and McKee, M., 2020. Bearing the brunt of covid-19: older people in low and middle income countries. The BMJ, [online] 368(1052). Available at: https://www.bmj.com/content/368/bmj.m1052.long

⁹³ Rahim, Z., 2020. These families cherished multi-generational living. But Covid-19 has wrecked it. [online] CNN. Available at: https://edition.cnn.com/2020/10/16/uk/multi-generational-households-coronavirus-gbr-intl/index.html

⁹⁴ House of Commons, 2020. Unequal impact? Coronavirus and BAME people. House of Commons: Women and Equalities Committee. Available at: https://committees.parliament.uk/publications/3965/documents/39887/default/

⁹⁵ National Voices, 2020. What we need now: What matters to people for health and care, during Covid-19 and beyond. [online] National Voices. Available at: https://www.nationalvoices.org.uk/what%20we%20need%20now

[%] Sounderajah, V., Clarke, J., Yalamanchili, S., Acharya, A., Markar, S., Ashrafian, H. and Darzi, A., 2021. A national survey assessing public readiness for digital health strategies against COVID-19 within the United Kingdom. [online] nature.com. Available at: https://www.nature.com/articles/s41598-021-95514.

⁹⁷ Greer, B., Robotham, D., Simblett, S., Curtis, H., Griffiths, H. and Wykes, T., 2019. Digital Exclusion Among Mental Health Service Users: Qualitative Investigation. Journal of Medical Internet Research, [online] 21(1), p.e11696. Available at: https://www.jmir.org/2019/1/e11696/

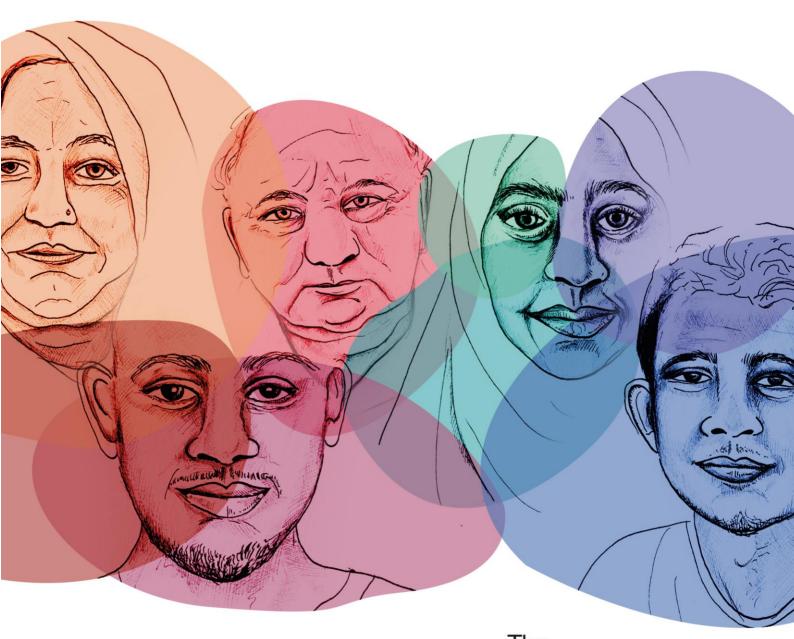
⁹⁸ Office of National Statistics, 2019. Exploring the UK's digital divide. [online] Office of National Statistics. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigit aldivide/2019-03-04

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To explore how these factors interrelate and manifest for individuals, we have:

- Taken a holistic perspective on people's health, exploring their health and health management behaviours, but also gained insight into wider factors impacting their lives e.g. employment, housing, social life, education, relationship with community, and culture. To do this, we ensured that we ask widely about people's health and wellbeing rather than just focus on the specifics of their conditions.
- Documented life histories around health, and wider determinants of health, to gain an understanding
 of how different factors affected them and led to where they are today. To do this, we dedicated time
 in interviews to exploring personal histories. Whilst it can be difficult to establish a causal links, this
 demonstrated how certain clusters of behaviour and experiences lead to different outcomes.

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The Richmond Group of Charities

Impact on Urban Health

