Office for Health Improvement & Disparities

Beyond the Data: One Year On

A Companion Narrative drawn from Data and Literature

NHS

INSTITUTE of HEALTH EQUITY

SUPPORTED BY MAYOR OF LONDON

LONDON COUNCILS

Contents

Executive Summary

One year on after Public Health England (PHE) described the disparities in risk and outcomes from the coronavirus 2019 disease (COVID-19), and reported beyond the data on stakeholders' views and experiences, the London health and care system has collaborated to update on stakeholders' views.

This narrative review serves as a companion to the Beyond the Data: One Year On report, and uses the structure of the original disparities publication to analyse key data (disaggregated by age, sex, ethnicity and area deprivation), integrated with a rapid literature review to understand the disproportionate impact of the pandemic on people from ethnic minority groups in particular. This companion report aims to take stock of what has progressed in the past year with a brief integrated review of relevant data and literature.

Age and Sex

Overall, observed case rates were higher in wave 2 compared to wave 1 because of better detection with greater availability of tests. Higher case rates were also observed in those with greater access to testing, such as working age populations, though higher admission and mortality rates continued to be observed in older populations. There were lower case rates in men, likely due to lower access to testing, though men had higher admission and mortality rates.

Ethnicity

We found that ethnic minority groups continue to be disproportionately impacted by COVID-19, with higher case rates, admission rates and mortality rates. Asian populations were worse affected in wave 2 (from September 2020 – mid February 2021), whereas Black populations were worse affected in wave 1. In particular, people from Bangladeshi communities had a significantly higher risk of death compared to White British populations. Some of the increased risk for people from ethnic minority groups relates to their occupation and living in multigenerational households, factors which were reported in the original Beyond the Data report, and now supported by additional evidence.

Area deprivation

People living in more deprived areas experienced higher case rates, admission rates and COVID-19 mortality rates. COVID-19 has amplified existing inequalities in the population, and the higher levels of adverse impacts is associated with pre-existing poorer health, financial stress that makes it more difficult to self-isolate. There is also an intersectional relationship between socio-economic disadvantage and ethnicity minority groups, which would suggest, greater focus on areas of high deprivation and higher proportion of ethnic minority groups would help to address health inequalities.

Review in context

A number of reports published over the past year have reviewed reasons why people from ethnic minority groups have experienced greater adverse impact from COVID-19. The Scientific Advisory Group for Emergencies (SAGE) ethnicity subgroup reviewed qualitative and sociological evidence to examine differences between the first and second waves and identified the role of media coverage, as well as access to health services as factors that contributed to the disproportionate impact. In the Marmot review of the early stages of the pandemic, the authors highlighted the role of entrenched inequalities and structural racism faced by ethnic minority groups as a driver of socio-economic and health inequalities. Some of these insights are difficult to measure through routine or research quantitative data and emphasises the importance of engaging with and listening to communities, to understand their perspectives so we can better work with them to serve their needs.

Conclusion

One year on, valuable lessons have been learnt from the data, literature, and community engagement. Health inequalities have worsened with an increase in life expectancy gap for males and females in 2020 compared to 2019. London had the biggest falls in life expectancy with a decrease of 2.5 years for males and 1.6 years for females. This reflects the severe impact of the COVID-19 pandemic on densely populated areas. In London, we continue to monitor and report disparities in COVID-19 outcomes, as part of the surveillance mechanism to the Health Equity Group, reporting to the London Health Board. The learning informs our actions as we continue to collaborate with partners, including community members in our work to reduce health inequalities.

Recommendations

Based on the learning outlined in this document, recommendations include:

- Continue to maximise and leverage the gains made in research translation into practice – and making best use of data.
- Recognise the current limitations of data and assume a greater need for targeted services for ethnic minority communities, particularly in areas of greater socioeconomic deprivation.
- Secure two-way conversation between communities and service providers, policy makers in health and care.
- Address ethnic disparities through a range of different pathways that meet all elements of the social determinant’s framework including efforts to promote anti-racism.

Introduction

London was at the forefront of the UK pandemic in the first wave, with the highest mortality rate and greatest pressures on NHS services.[1] Since the first case was reported on the 24 January 2020, there has also been a rapid evolution in the management and understanding of the disease, with developments in medical interventions, testing and vaccinations, resulting in different patterns of infection and outcomes in London. Services have also developed rapidly, the infrastructure and personnel of NHS Test and Trace emerged on 28 May 2020 from 163,255 polymerase chain reaction (PCR) tests per day, to now include capability of 654,083 PCR tests per day by 31 May 2021 and widespread availability of lateral flow devices (LFD) for home testing. Results from clinical trials in the NHS and development of vaccines, have been success stories from collaborative working.

The pace in evolution of scientific discovery and implementation has also shaped our understanding and management of the corona virus disease. From the rapid establishment of large population surveys (the Office of National Statistics (ONS) COVID19 infection survey (CIS),[2] real-time assessment of community transmission (REACT),[3] ZOE)[4], and real-time modelling studies, to the development, trial and rollout of the vaccines; efforts that have previously taken years to realise only took months when society faced a global threat together. Timely use of routinely collected data such as NHS records and ONS data has also helped us to have a better awareness of the state of the epidemic. Public health research and practice synchronised.

The “Disparities in risks and outcomes of COVID-19” report,[5] together with the companion “Beyond the Data understanding the impact of COVID-19 on BAME groups”,[6] showed that people from minority ethnic backgrounds experienced worse outcomes in wave 1. Reasons for these disparities were attributed to longstanding social and economic inequalities, higher risk of exposure and adverse outcomes, racism, and discrimination. Though the first wave primarily tested and identified people who accessed or worked in hospitals, the findings in this first report remain relevant.

One year on from the publication of the original report, this report aims to take stock of what has progressed since, with a brief integrated review of relevant data and literature. Our objective was to add to initial findings on the inequitable impact of the epidemic on Londoners, particularly those from ethnic minority groups and identify potential areas for action to mitigate further inequalities. This report serves as a companion to the stakeholder engagement report which, completed one year on from the original, adds to our understanding of disparities in outcomes by revisiting the disproportionately affected communities and puts Londoner’s voices first.

Background

Disparities in health outcomes between different population groups are not new. Ethnic minority groups report poorer health and have a higher risk of worse health outcomes compared to White populations in the UK in a national survey.[7] Though there are variations in the extent to which outcomes vary across ethnic groups. People living in more deprived areas, with lower levels of education, lower socioeconomic position, less secure employment, poor housing, have worse health outcomes. Social determinants of health cause more disease and worse health.[8]

Ethnicity is a social construct.[9] The social characteristics of ethnicity, together with a consideration of the social and economic determinants of health, require an integrated approach to understand why people from ethnic minority backgrounds have often experienced poorer health outcomes, then, and now, and as we continue to live through the COVID-19 pandemic. This report is structured using similar sections to last year's disparities report, which examined data on age, sex, ethnicity, and area deprivation. We have integrated a brief review of key evidence to accompany and interpret the data in order to gain further insights to what we observed in the past year.

This review intends to complement the stakeholder engagement. Protected groups have experienced significant adversity in the pandemic, though data is limited for some characteristics. The Greater London Authority (GLA) commissioned a rapid review of the literature on health inequalities in London, which included local engagement and research with voluntary, community and social enterprise (VCSE) groups focusing on the nine protected characteristics.[10] The findings, published in September 2020 outlined the inequitable impact from the COVID-19 pandemic across the protected characteristics, and our review has extended our understanding based on more recent literature for age, gender, ethnicity, socio-economic deprivation. One persistent finding is the lack of high-quality data for some groups, particularly those identified as part of inclusion groups such as people who are homeless, sex workers, migrants, and refugees. Though people from Gypsy, Roma and Traveller communities are a separate category in census ethnic groups, results are usually aggregated into "White other" likely due to small numbers and risk of disclosure. We have also included a section on disability due to high-quality publications available in this area.

Methods and Approach

Literature review

A structured literature review was completed by library services to address the question: “What are the wider impacts of COVID-19 on people from ethnic minority groups?”. The initial intention was to review literature relating to wider impacts, framed by the socio-ecological model of wider determinants of health, and its impact on all disproportionately affected groups. The initial search yielded 6332 records, of which 4294 remained after duplicates were removed. Titles and abstracts were screened and 400 remained that were considered of relevance. We then limited the selection to records published after PHE Beyond the data report, with papers available in English, and those that were systematic reviews or primary studies from London. This resulted in 22 records, which were reviewed in full. Overall, there was limited literature on the wide range of disproportionately impacted groups, such as inclusion groups amongst these records, and in particular, we compared findings from the selected papers with the review published by Nazroo et al in September 2020, commissioned by the GLA[10] and did not find any articles that would have changed the conclusions made by Nazroo’s review. One area where there was significant learning was for people with learning disabilities. Therefore, we focused on articles that investigated the impact on ethnic minority groups, which resulted in 6 articles, and an additional rapid review of reports for people with learning disabilities. After consulting with colleagues who were familiar with the literature, we were advised to revisit key references and policy documents from the organisations and studies listed below, and a further 17 reports were included, of which 5 had been excluded from the original literature search.
Additional included reports and papers were retrieved from:
Office of National Statistics (ONS)
Real-time Assessment of Community Transmission (REACT)
OpenSAFELY
QRisk
Public Health England (PHE)
NHS Confederation
Race Disparity Unit
Scientific Advisory Group for Emergencies (SAGE)
Institute of Health Equity

A detailed list of search terms and search strategy is included in the appendix.
Reviewed reports and papers are included in the references.

Limitations

There are limitations to this review. Given the wide-ranging nature of impacts on disproportionately affected groups, it was beyond the scope of this report to conduct a comprehensive review of all areas. Though we have limited the literature review to two main areas, the rapid nature of the work could result in papers that have been missed. The rapid evolution of research in COVID-19 would also suggest that there may be papers published since we conducted the search in June that will be of relevance, but not included here. Usually there are two independent assessors of evidence for literature reviews, however, due to the timescales involved in this work, this was not possible.

Results

Age

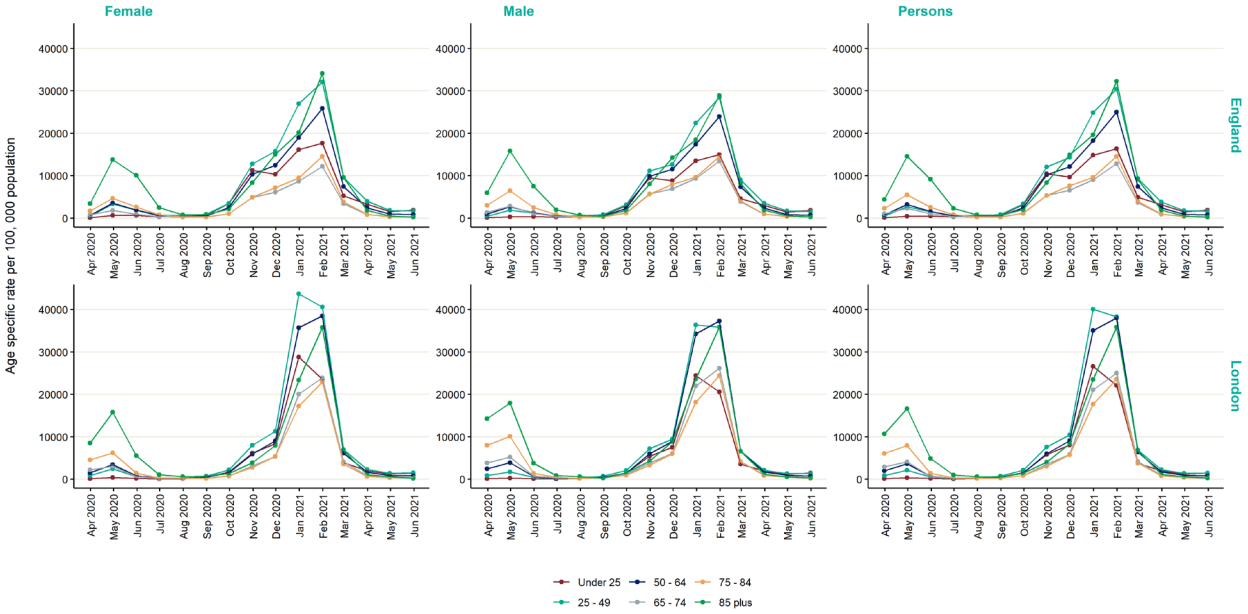


Figure 1. Monthly age-specific COVID-19 case rates per 100,000 person-years in England and in London, for males and females from March 2020 - May 2021.

Case rates appear low in the first wave due to lower testing rates, as only people with severe disease who were in hospital were tested. Statistical models indicate higher numbers of people infected in wave 1 compared to wave 2 in the UK, though detected case numbers were far lower.[11] Testing capability and testing rates increased gradually after the establishment of NHS test and trace on 28 May 2020 (Figure 2). Case rates remained low over the Summer of 2020 but started to increase as universities and schools reopened in September.

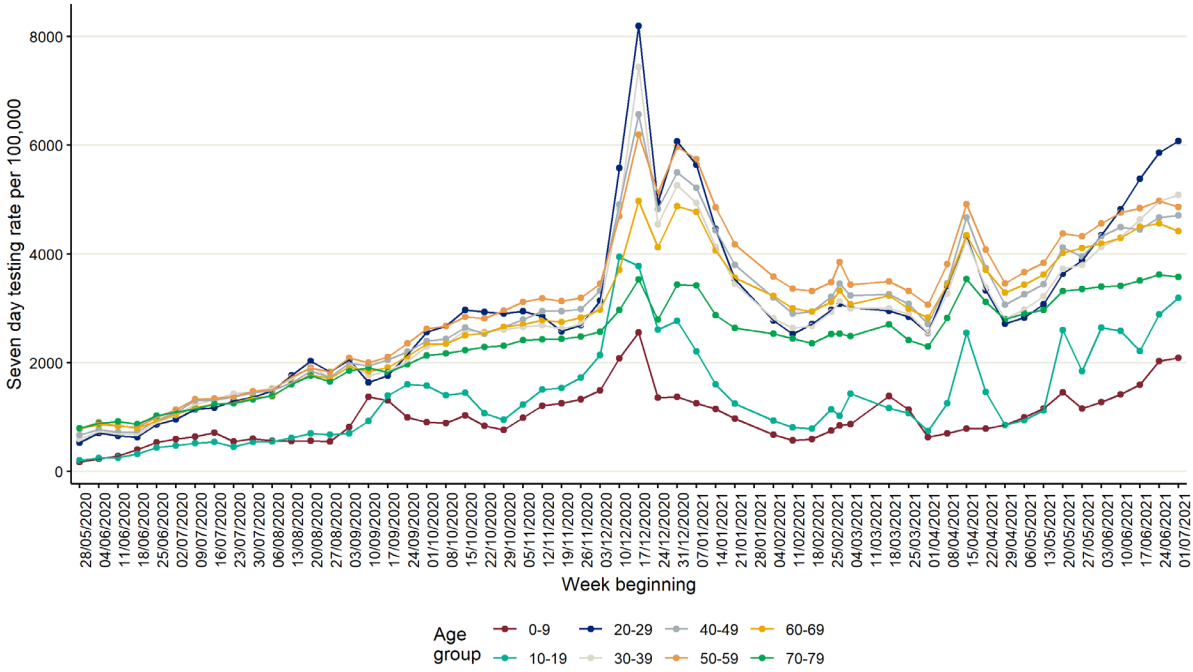


Figure 2. Seven-day testing rates in London by age groups. May 2020 – July 2021.

Case detection is dependent on access to testing, whether due to physical access or awareness and health behaviours. As an example of how science progressed rapidly to enhance our understanding and management of the disease, the Office of National Statistics (ONS) in collaboration with academic partners established the COVID-19 infection survey (CIS).[2] The CIS is a population household survey which draws samples from people in the community regardless of access or symptoms and uses the results to estimate the levels of infection in the population, termed population positivity.[12] The survey does not sample people in hospital or care homes, and therefore may underestimate levels of infection in older people. A comparison between case rates and the ONS survey suggests that at the beginning of wave 2, there were undetected cases in younger age groups. The highest infection rates in the ONS population sample were observed in school aged children, in contrast to detected case rates where school age children had some of the lowest levels over the same time periods. Case rates in London were lower than that in other regions in early Autumn of 2020, but quickly increased in November as the alpha variant rapidly spread through the London population in the second wave of the epidemic.

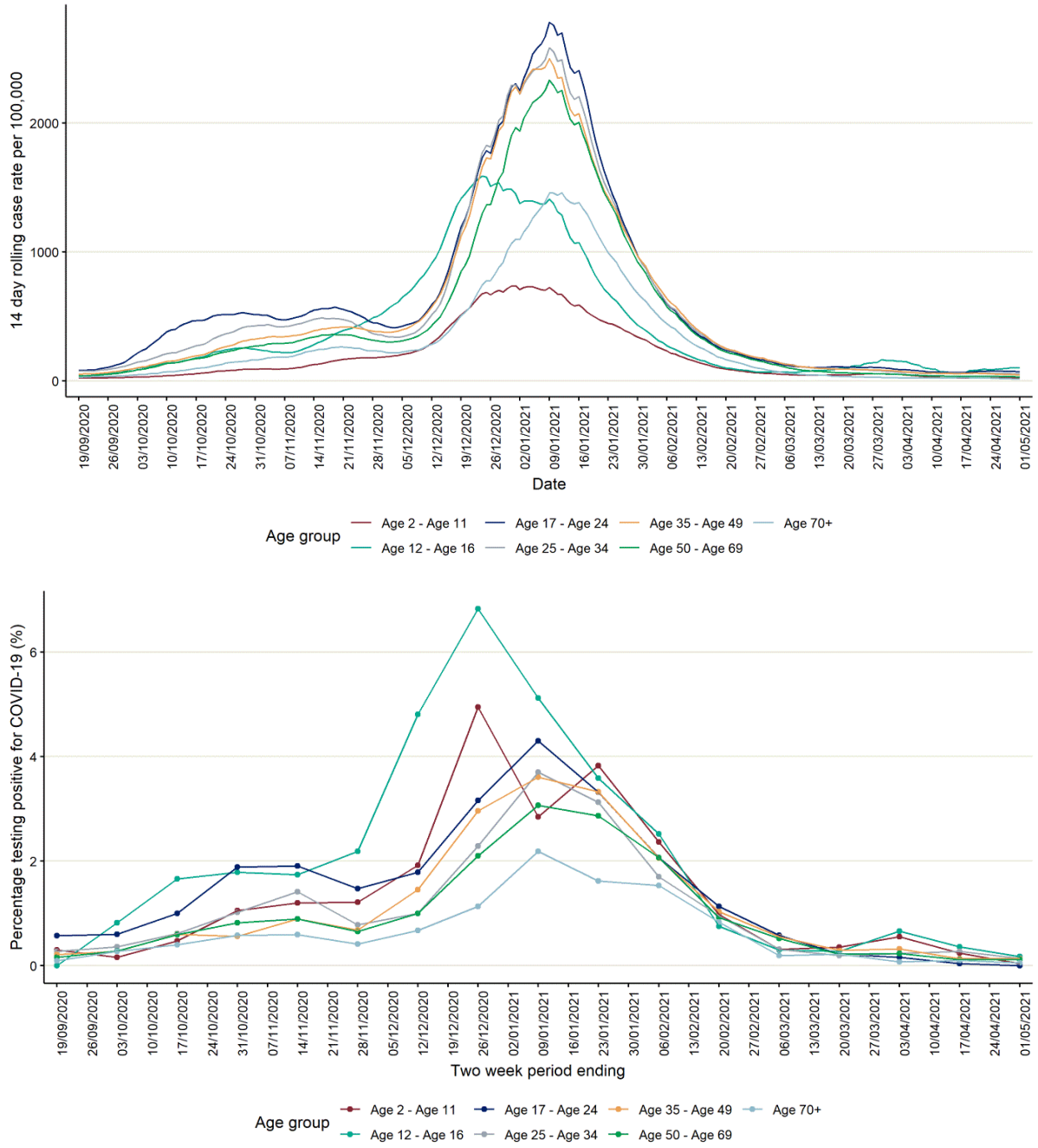


Figure 3. Comparison of (top) rolling 14-day case rates in London compared to (bottom) ONS Coronavirus Infection survey population estimates of COVID-19 in London by age groups between September 2020 and May 2021.

During the second wave, the highest case rates were observed in working age adults, which likely reflects access to testing and symptomatic infection. Children are less likely to exhibit symptoms compared to adults, likely due to differences in their immune response, and therefore would not have been tested.[13] Further comparison of case rates with the CIS study results suggest that there were relatively higher levels of

SARS infection in school age children compared to detected case rates. Older people aged 85 and over were affected later in the second wave as community transmission spread to people of all ages. Regular asymptomatic care home testing policy introduced from 6 July 2020, would have also increased detection in this population. As testing policy evolved and school reopened in March 2021, higher levels of infection in school-aged children were detected in both case rates and the CIS survey.

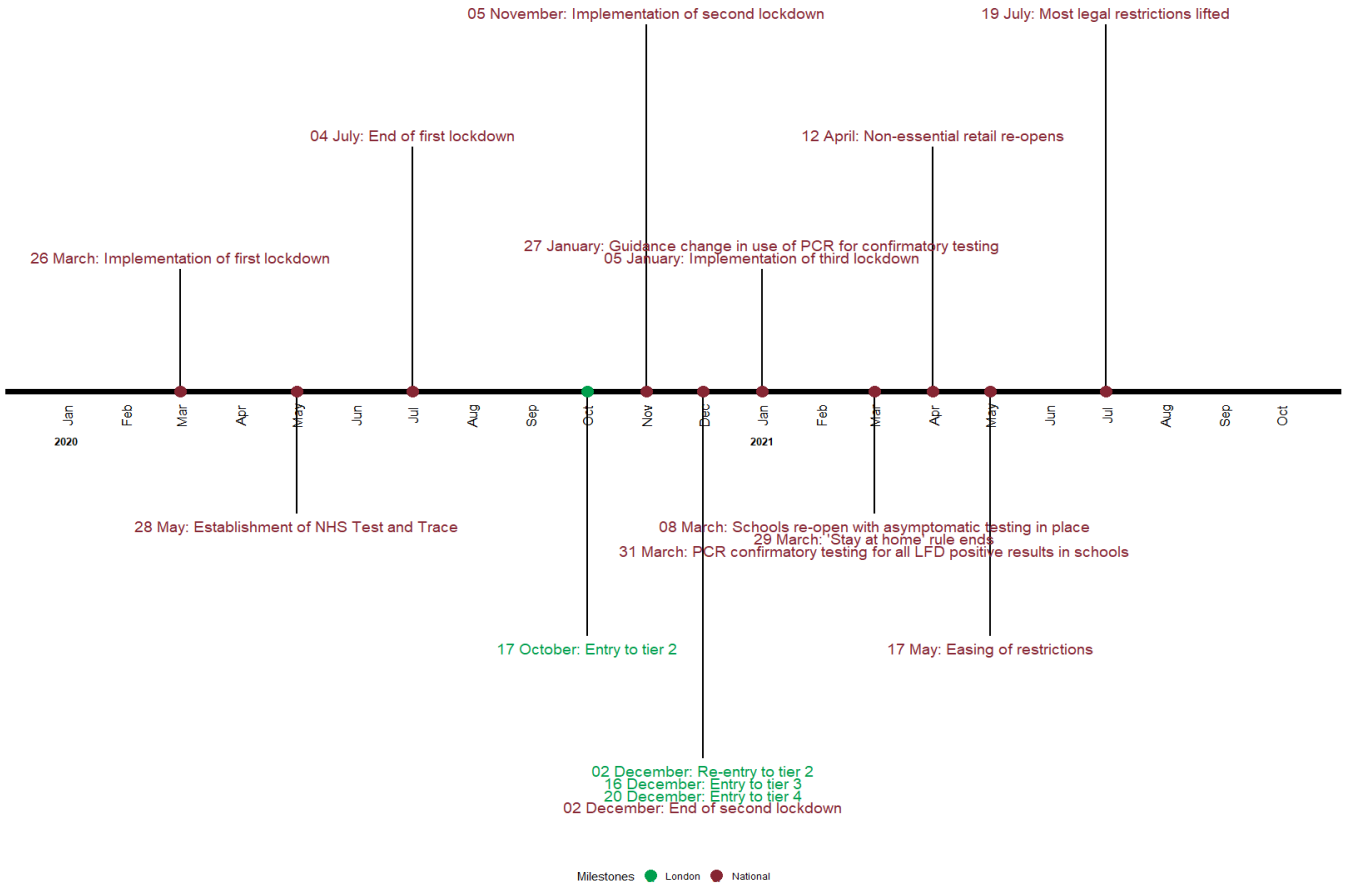


Figure 4. Timeline of London COVID-19 policy. Jan 2020 – Oct 2021.

Rates of hospital admissions reflect more severe disease. The disparities report already highlighted the increased risk of adverse outcomes from older age. In wave 2, an age gradient remained consistent in hospital admissions and mortality rate.

Health disparities refer to differences in health outcomes related to social and economic disadvantage.[14] Older people experiencing worse outcomes can be a reflection of biological differences related to ageing processes. However, if there are worse outcomes for older people that are also related to socioeconomic position (SEP) or ethnicity, then these are considered as health disparities. The intersectional nature of relationship between age, sex, ethnicity, and SEP will be discussed further below.

Care home deaths accounted for around 40% of all COVID-19 related deaths in the first wave in England, but this was lower in the second wave. This national picture was also reflected in London where, between March and June 2020, 16.2% of reported deaths were from care homes compared to 6.4% between September 2020 and March 2021. This reduction is likely related to policy and guideline changes after the results of the Vivaldi study.[15] Vaccinations of care home residents and staff are likely to have also played a role in lower death rate in wave 2 compared with wave 1.

Given our understanding of the effect of older age on higher COVID-19 risk and worse outcomes, we present analyses using age bands, to show the different effect from different age groups. We also present age-standardised analyses, where we adjust for the effect of age and demonstrate the effect of the factor of interest e.g. ethnicity, area deprivation on COVID-19 outcomes.

Figure 5. Monthly age-specific COVID-19 hospital admission rate per 100,000 person-years in England and London, for males and females from March 2020 – February 2021.

Figure 6. Monthly age-specific COVID-19 death rate per 100,000 person-years in England and London, for males and females from March 2020 – February 2021**.**

Sex

Throughout the pandemic, testing rates and case rates have been lower for males, but they have higher admission and mortality rates. This suggests that they are less likely to access healthcare, in the form of COVID-19 tests, and less likely to be diagnosed, yet experience worse outcomes. Given that case rates are dependent on testing, females could be more likely to access testing, but have similar levels of infection. This is supported by population surveys and positivity figures. Both ONS and REACT studies show similar levels of prevalence in men and women.[12] [16] Males in London had higher positivity, that is a greater proportion of tests are positive compared to females, which indicates that there are relatively higher levels of infection given the number of tests taken for males compared to females. In a series of surveys of market research participants, men were less likely to identify the main symptoms of COVID-19 and less likely to fully self-isolate after developing COVID-19 symptoms.[17]

Men and women were exposed to disease through their work, with men more likely to work as drivers, and women more likely to work in health and care sectors, with both examples of occupation increasing their risk of exposure. Therefore, other factors would explain higher risk of admissions and mortality in men compared to women. An analysis of over 14 million people using background information from the 2011 census showed that socio-demographic and health factors explained around 70-80% of increased risk for most occupations.[18] There are also differences in other health behaviours such as smoking that are associated with co-morbidities that lead to worse COVID-19 outcomes. There are also indications that androgens may play a role in the increased risk of infection in men.[19]

Ethnicity

Differences in health outcomes across ethnic groups are well documented.[20] [21] An ONS analysis of outcomes from the first wave showed that men and women from all ethnic minority communities experienced higher mortality rates compared to the White British population.[22] In particular, Black African men and women had increased risk of death involving COVID-19 of 3.7 and 2.6 times respectively compared to that of White British people after adjusting for age. In statistical models that additionally adjusted for location, occupation, measures of socio-economic disadvantage and pre-existing health conditions, Black African men and women still had higher COVID-19 mortality rates, but the risk was no longer statistically significantly higher for some ethnic groups. This suggests that some of the increased risk was due to where ethnic minority groups lived, and their social, economic and health conditions.

COVID-19 outcomes described above are based on an analysis of people who have been tested and diagnosed with the disease, and there may be errors in interpretation of the patterns of disease because these outcomes do not include infected people who did not get tested. The REACT study examined antibody levels of their participants after wave 1, which allows researchers to investigate people who had acquired infection, even those who may not have received a test.[23] Though there were higher levels of antibodies in people from ethnic minority groups, the infection fatality ratios (IFR, the proportion of deaths amongst people with infection) were similar between people from White backgrounds compared to those from minority ethnic backgrounds when groups of similar age and gender were compared. This indicated that it was higher rates of infection, rather than variation in the natural history of disease or treatment that resulted in higher mortality rates for Black populations in the first wave. Other studies have also shown that it was increased risk of exposure for Black African and Black Caribbean populations that caused higher mortality rates in the first wave.[24]

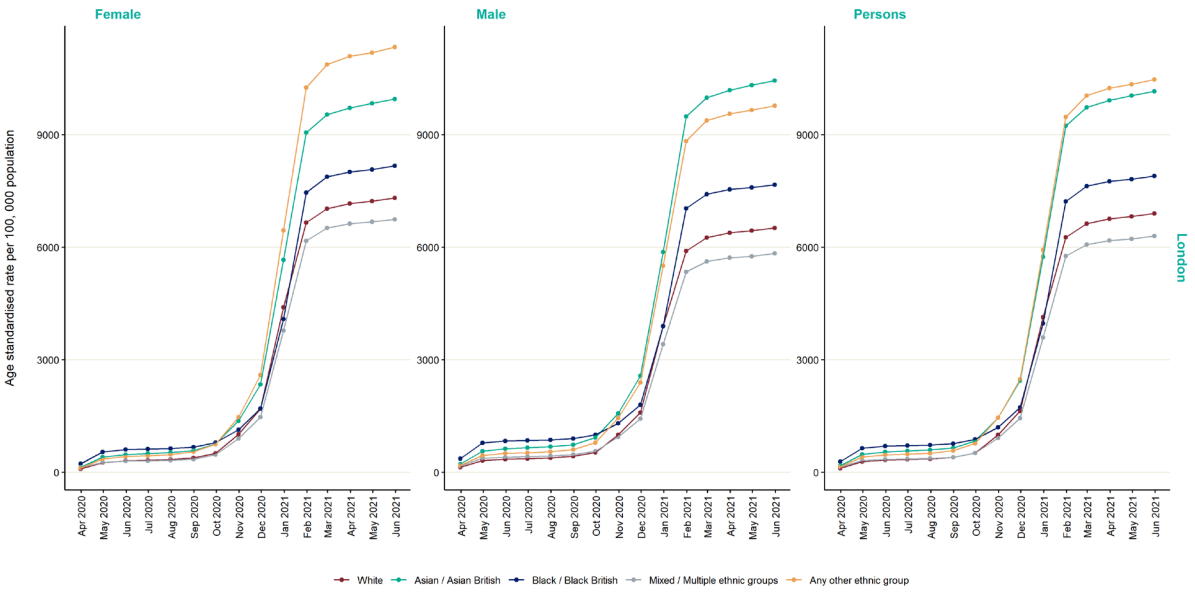


Figure 7. Cumulative age-standardised COVID-19 case rates per 100,000 population in London by ethnic group, from March 2020 - May 2021

In the second wave, although people from Black African and Black Caribbean communities remained at higher risk compared to White populations, it was people from Bangladeshi and Pakistani groups that had the highest mortality rates from COVID-19. In February, we reported that Asian Londoners were 1.7 times more likely to die within 28 days of a COVID-19 diagnosis in the second wave.[25] A linked database analysis of 17 million people in England showed that Bangladeshi people had over twice the risk of death in wave 2 compared to White British people, with Indian and Pakistani groups having just under twice the risk, compare to White British people, after taking in to account underlying difference in age, sex, sociodemographic and health factors.[20] Amongst people diagnosed with COVID-19, a PHE analysis showed that those from Bangladeshi, Pakistani, Indian and other Black populations were at increased risk of death following diagnosis, which suggests factors other than increased exposure contributed to higher rates of adverse outcomes in these groups.[24]

At the peak of the second wave in early January, London had the highest case rates in England in all age groups. Amongst people of Asian background, the case rates were 9237.9 per 100,000, and the highest case rates were observed in the north east of London, where there are higher proportions of Asian residents. Cumulative case rates were higher in Asian females compared to males. A breakdown of case rates by ethnic groups in the second wave showed that Asian populations suffered the highest levels of infection (1.47 compared to White population), and the rates were higher in women compared to men (1.03). Hospital admissions rates were higher in males for all ethnicities, as discussed above.

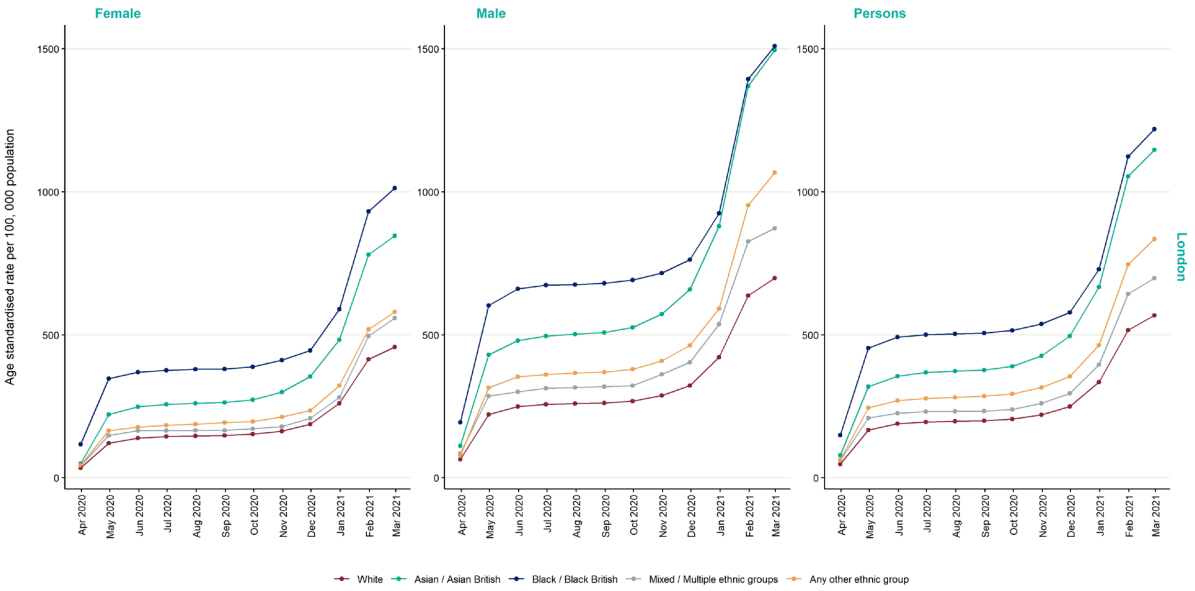


Figure 8. Cumulative age-standardised COVID-19 hospital admissions rate per 100,000 population in London by ethnic group, March 2020 - February 2021

There were differences in outcomes between males and females from different ethnic groups. Hospital admissions rates were higher in males for all ethnicities, as discussed above. Two factors that contribute to these differences between males and females in ethnic minority groups are their occupational and household situations. [26] [27] [28] People living in multigenerational households are at higher risk of inadvertent transmission. For example, from school children, who are more likely to develop asymptomatic infection and experience exposure through school attendance, to their older family members, who are at higher risk of adverse outcomes. Living with children increased risk of infection in wave 2, but did not translate into increased mortality for the population.[29] Though there were variations in different ethnic groups. A linked database study from the ONS examining data from the first and early second wave showed that older people were indeed at increased risk of COVID-19 mortality, and living in a multigenerational household was a significant factor in the increased risk for older South Asian women, compare to White women, but not for older South Asian males.[27] Though South Asian male Londoners experienced increased risk of exposure from their occupations such as working in transport or essential occupations that require relatively close contact, females of ethnic minority backgrounds experienced increased risk from different sources, though in both cases, the risk is reduced once other socio-economic risk factors are adjusted for. These studies suggest that the social and economic inequalities faced by people from ethnic minority groups play a significant role in the increased risk of adverse COVID-19 outcomes.

Intersectionality is an analytical framework that highlights the overlapping nature of different social and political characteristics to produce greater levels of disadvantage e.g. the added complexity of sexism faced by Black women can increase the level of

discrimination compared to that faced by Black men.[30] [31] As well as intersection between ethnicity and gender, there are additional factors that exacerbate these risks, such as socio-economic position, a proxy which we present here as area deprivation, described in the following section. Using these concepts can allow us to better understand and address different risks. What works for one group may not work for everyone in that group. Therefore, addressing the household related exposure risks for ethnic minority communities may impact adverse outcomes for women more than men from these groups.

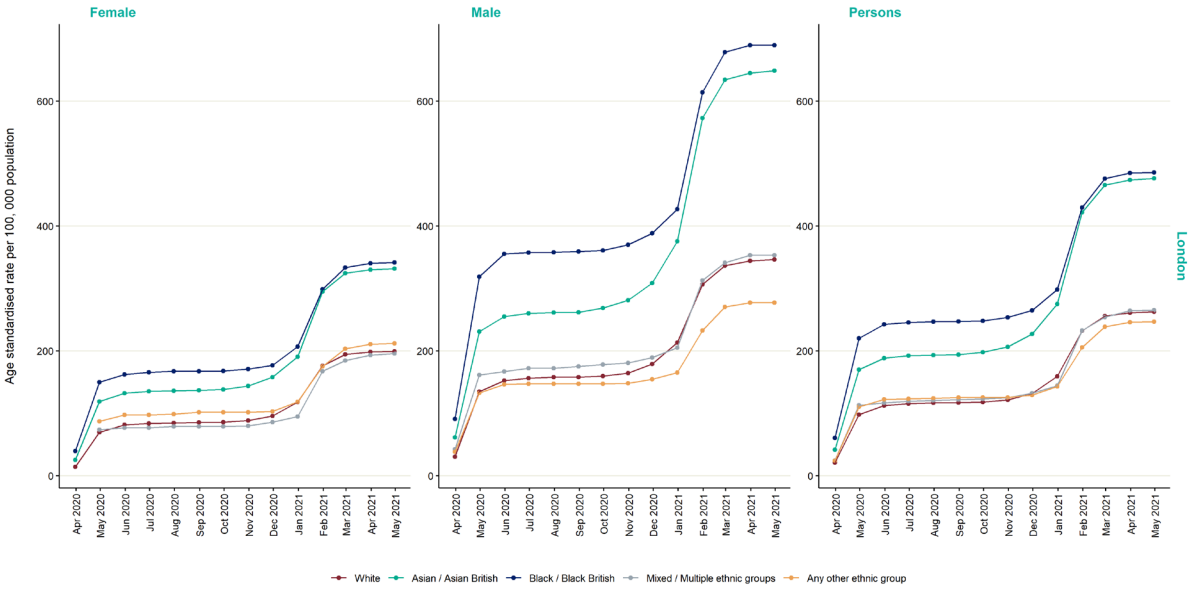


Figure 9. Cumulative age-standardised mortality rate per 100,000 population for COVID-19 deaths in London by ethnic group, March 2020 - April 2021.

Area deprivation

One clear impact of the pandemic is the amplification of health inequalities.[32] People who live in more deprived areas experience poorer levels of health and wellbeing.[7] Similarly, the highest case rates were detected in the most deprived areas.[33] [34] This has been a consistent pattern throughout the pandemic. Females living in the most deprived areas experienced higher case rates compared to males living in the most deprived areas. Yet trends in admission and mortality rates were reversed with higher rates of adverse outcomes in males from the most deprived areas compared to females. (Figure 10)

There are number of potential explanations for this effect and some have been described above. For men living in more deprived areas, they may be less likely to access testing partly because of potential impact on employment and income, particularly for people living in more deprived areas, and those in insecure

employment, with potential loss of earnings should they be diagnosed with COVID-19 and advised to self-isolate. [17] [35]

Another potential mediating factor is co-morbidities. People living in more deprived areas, in lower socio-economic position experience higher levels of chronic disease, such as diabetes, cardiovascular disease.[36] [37] There is a life expectancy gap of around 10 years between men living in the most deprived and least deprived areas.[32] The social gradient in morbidity and mortality persists within as well as across ethnic groups, which suggests that targeting socially patterned factors such as obesity requires greater intensity in deprived areas with higher proportions of ethnic minority communities. Studies have shown that variations in co-morbidities between ethnic groups partly contribute, but do not fully account for differences in deaths between different ethnic communities.[22]

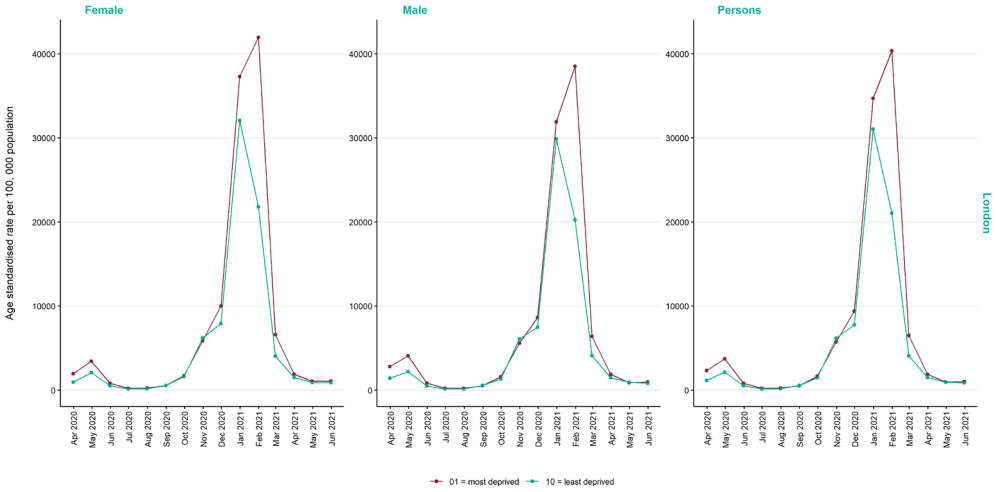


Figure 10. Monthly age-standardised COVID-19 case rate per 100,000 person - years in London, by regional area deprivation deciles, March 2020 - May 2021

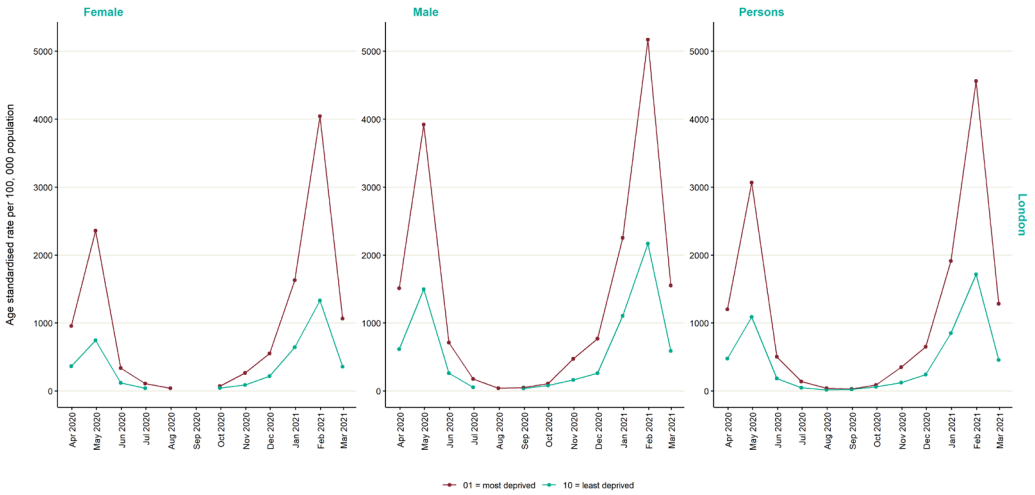


Figure 11. Monthly age-standardised COVID-19 hospital admissions rate per 100,000 person-years in London by regional area deprivation deciles, March 2020 - February 2021.

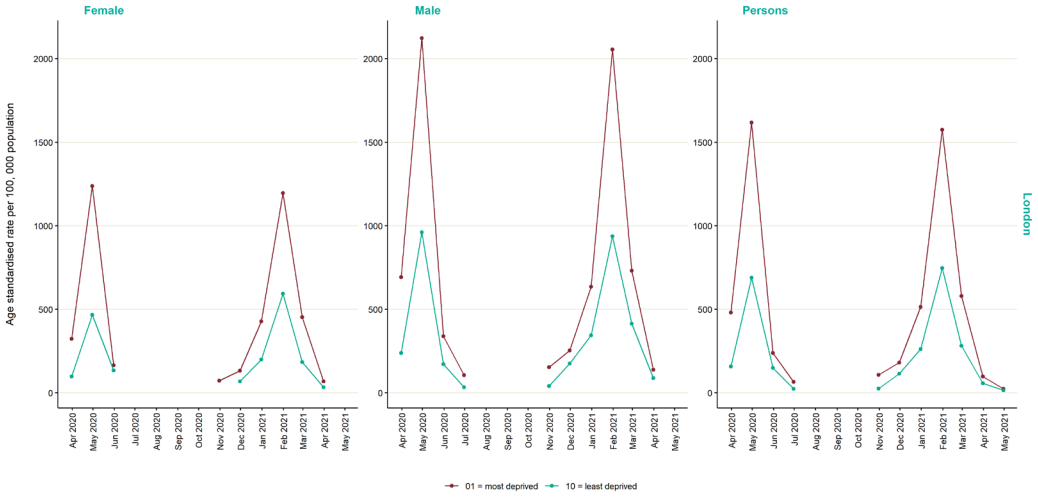


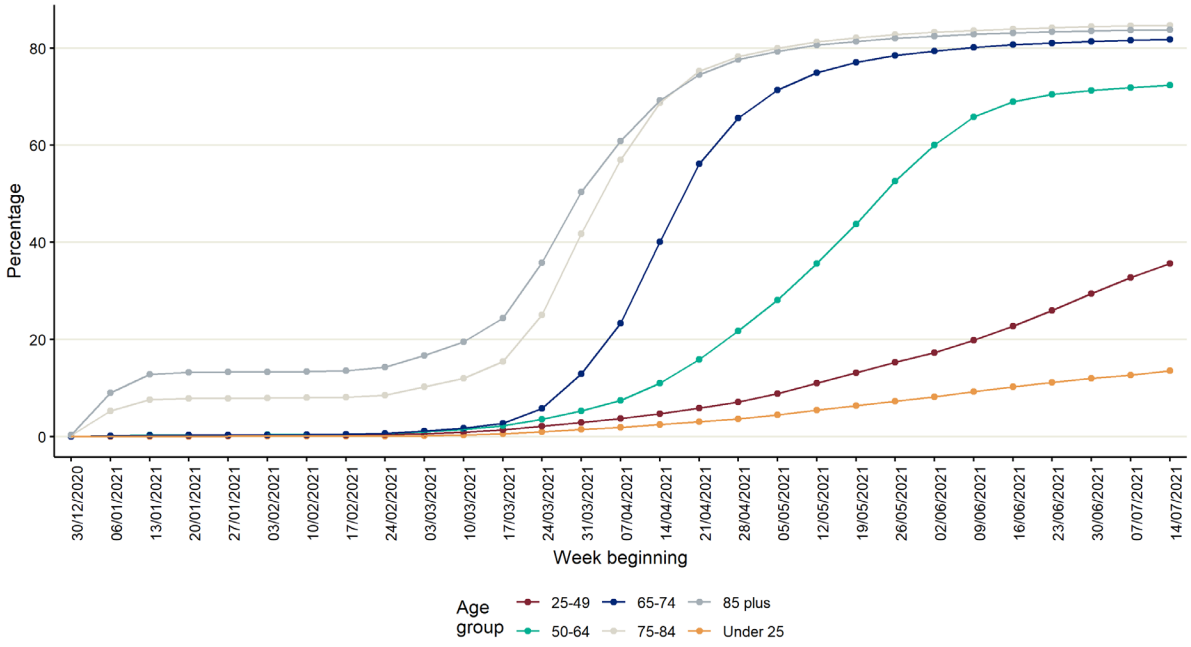
Figure 12. Monthly age-standardised COVID-19 mortality rate per 100,000 person-years in London by regional area deprivation deciles, March 2020 - April 2021.

Vaccinations

One of the key successes to the UK's management of the pandemic is the development and rollout of the COVID-19 vaccines. Since the first patient received a COVID-19 vaccine in England on 8 December 2020, over 11 million doses of vaccines have been given to Londoners to date.[1] Figure 13 shows the increasing cumulative uptake of vaccines in different age groups over time, which reflects the priority age groups who were offered vaccinations earlier to quickly protect those at highest risk. There are also inequities in vaccination uptake in England, as well as in London.[38]

London continues to have the lowest vaccination uptake in the over 50s, with 10.9% unvaccinated by the end of July 2021, compared to other regions where fewer than 5.5% were unvaccinated in this age group.[32] However, over 90% of adults in London are estimated to have antibodies to COVID-19, whether from infection or vaccination, which is similar levels to other regions in England.[39] The disparities in COVID-19 hospitalisations and deaths are also reflected in vaccinations, particularly for people from ethnic minority groups, and those living in more deprived areas. Reasons for lower uptake, or vaccine hesitancy include difficulties with access and mistrust, outlined in the 5C model of the drivers of vaccine hesitancy: confidence, complacency, convenience (or constraints), risk calculation and collective responsibility.[40]

Uptake continues to increase, through efforts from all partners in the health and care sectors. The importance of community engagement, initially as part of the vaccination efforts, but since maintained as valuable public health action to support Londoners and reduce health inequalities, is another key learning. The conversations with communities, such as those in the Beyond the Data: One Year On report, bring their perspective and priorities into focus, helping us address key gaps in data, evidence and in our understanding.



Disability

People with disabilities, and learning disabilities (LD) have increased risk of death from COVID-19 compared to those without disabilities.[41] [42] Analyses from the OpenSAFELY study showed that people with learning disabilities were over 4 times more likely to be hospitalised and around 8 times more likely to die compared with those without LD in the population, with very little change in wave 2 of the pandemic.[43] These estimates of risk were higher than that reported by PHE, which showed over 3 times higher risk of death, likely because routine data such as general practice (GP) registers underestimate the number of people with LD in the population and under-reporting to the learning from deaths programme, where deaths of people with LD are reported and reviewed.

Age-specific COVID-19 death rates were higher for people with learning disabilities across all adult age groups, but by a greater margin in younger age groups. Similar findings were reported from linked ONS data for people with disabilities.[44] Based on the 2011 census data on self-reported disability status, younger people aged 30-69 in 2020 who reported being more-disabled in 2011 were 5.4 times (men) and 8.5 times (women) more likely to die from COVID-19 compared to people who were non-disabled. This is higher than people who were 70-100 years old in 2020 who were around 3 times more likely to die if they were disabled in 2011. These differences in risk between age groups were reduced once their pre-existing health, social and living circumstances had been adjusted for in statistical models, implying this increased risk in younger people with disabilities is related to these other factors. There are limitations in the interpretation of self-reported disability status that is 10 years old, but the self-reported nature of the disability status is in line with the definition of disability in the Equalities Act 2010.

Disabled people were at higher risk from all causes of death in the first and second waves of the pandemic, and only a small proportion was due to COVID-19, which highlights the severe impact on this population. The ONS social impacts survey in February 2021, which assessed current levels of disability, showed that disabled people were more likely to report that the pandemic had affected, their health; access to healthcare; wellbeing; and access to groceries; medication and essentials.[45] A rapid review of literature showed similar findings with reduced access to health care, and changes in mood and lifestyle habits as a result of the pandemic, particularly over periods of lockdown.[46-48] People with disabilities form a vulnerable group that require additional health, care and social support.

Actions have been taken by the health and care system to address the disproportionate impact of COVID-19 on people with LD, including encouraging increased uptake of preventive care, training health and care staff, ensuring reasonable adjustments and reviewing do not attempt cardiopulmonary resuscitation decisions for people with LD.[49] Vaccinations is also a key intervention to protect the population from COVID-19, and people with LD were also prioritised as an at risk group

after the reports above were presented to the Joint committee on vaccinations and immunisations (JCVI).

Review in Context

UK policy on health inequalities has focused primarily on social determinants of health, following from the Black, Acheson and Marmot reports.[50] [37] [51] Though ethnic disparities were evident, the lack of consistent data at the time made it difficult to understand the relationships between ethnicity and social determinants. In the Marmot review of the early stages of the pandemic, the authors highlighted the role of entrenched inequalities and structural racism faced by ethnic minority groups as a driver of socio-economic and health inequalities.[52] Structural racism has been defined as 'the macro-level systems, social forces, institutions, ideologies, and processes that interact with one another to generate and reinforce inequities among racial and ethnic groups'.[53] The concept underscores the societal context in which racism operates, and co-exists with but differs from institutional racism where discriminatory processes and attitudes are permitted to exist in organisations, and individual level discrimination. The complexity and hidden nature of some elements of racism, whether through lack of data, or lack of awareness, has contributed to the persistence of ethnic disparities, laid bare in the current pandemic. Reducing health inequalities will require tackling racism at societal, institutional, and interpersonal levels. The diagram below outlines how racism drives health inequalities through the social determinants of health.

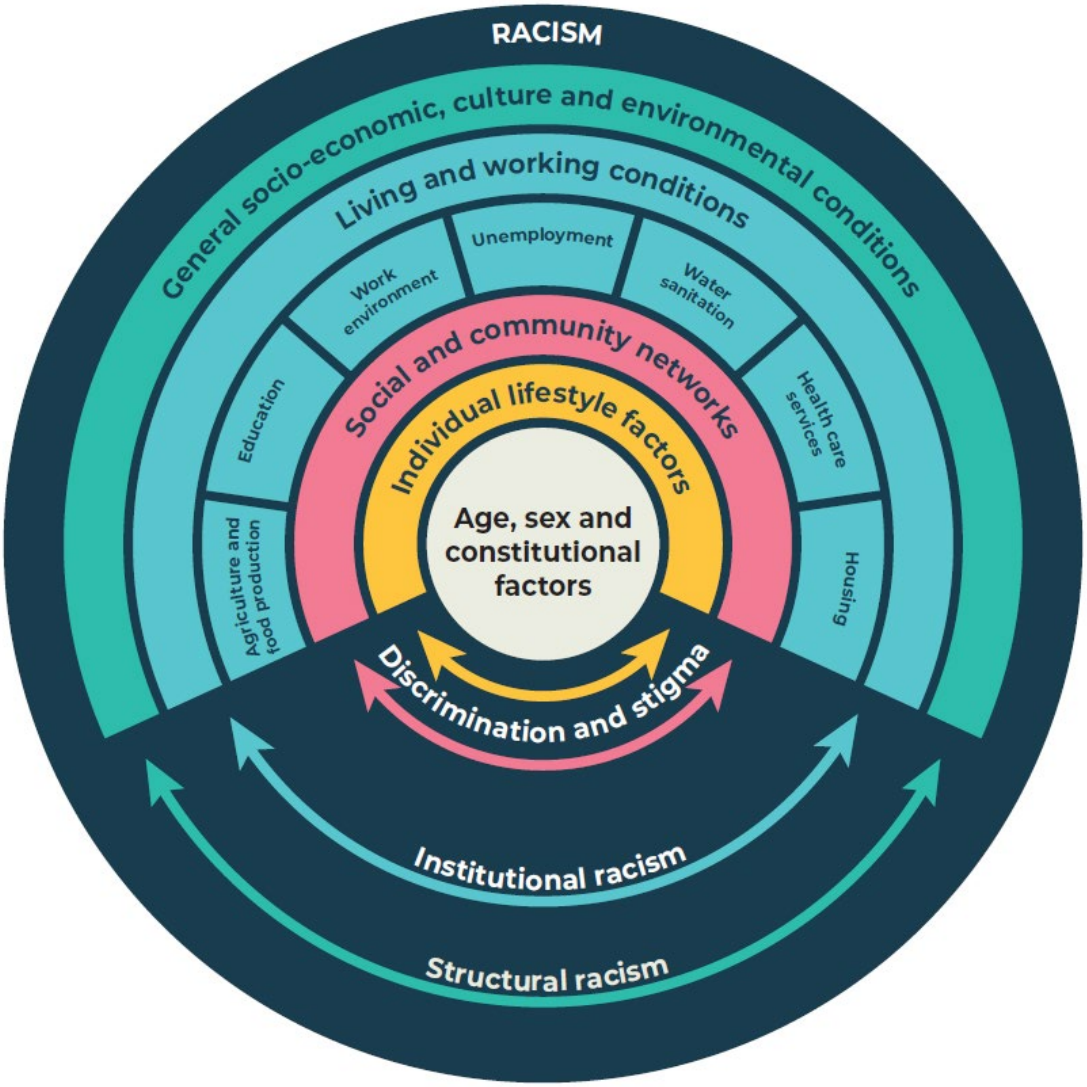


Figure 14. Conceptualising racism integrated with the social determinants of health. *Adapted from Dahlgren and Whitehead, 1993 showing racism as a driving force for social determinants of health. Though social determinants are universal, racism is one of a range of driving forces that exists in our societies and that acts on these determinants.*

One of the recommendations from the Beyond the Data report was the need to collect data on ethnicity. Ethnicity recording on death certificates has since been implemented. Further efforts to improve ethnicity recording in health and care services must be maintained to continue to identify and monitor ethnic inequalities. Quantitative data can describe variations, but risk oversimplifying complex issues. The Scientific Advisory Group for Emergencies (SAGE) ethnicity subgroup reviewed social science and qualitative evidence to investigate differences between the first and second wave for ethnic minority groups.[26] Qualitative data can draw out complex issues and enable us understand why and how the patterns observed develop. Findings from this review supported quantitative analysis that showed the contributions of occupational

exposure, household circumstances and financial implications of self-isolation to increased risk. Additional insights include the impact of both the stigmatising (singling out Eid and Ramadan) and supportive nature (Black Lives Matter) of different forms of media coverage. Differential access to health services was also raised as a factor that contributed to worse outcomes for ethnic minority groups by both SAGE and the NHS confederation.[54] Designing services that serve the community rather than using a one size fits all approach can enable access, particularly for those with fewer resources.

Where data is poor, it is more difficult to understand need, particularly for communities who do not trust those in authority. Qualitative data, and engagement with people from the relevant communities with lived experience can enhance our understanding of the day-to-day realities that underpin the statistics. Conversations with communities will continue to play an important role in our work, to embed their voices in policies and practice so services are co-designed. The 'One Year On' series of discussions has highlighted a range of issues where there is relatively sparse data for people from ethnic minority groups, such as community mental health and disability. Even without consistent data, there are clear indications that people from the most deprived areas, and particularly those from ethnic minority groups are most likely to suffer worse outcomes. To address health inequalities, Marmot proposed using a proportionate universalism approach, where universal services are resourced and provided proportionate to need, with greater resources allocated to areas and communities with greater needs.[52] Application of this principle would mean more deprived areas would receive higher levels of funding and service provision, with additional targeted services for deprived areas with ethnic minority groups to tackle racialised disadvantage.[55]

Conclusion

One year on, valuable lessons have been learnt from the data, literature, and community engagement. Health inequalities have worsened with an increase in life expectancy gap for males and females in 2020 compared to 2019. London had the biggest falls in life expectancy with a decrease of 2.5 years for males and 1.6 years for females.[32] This reflects the severe impact of the COVID-19 pandemic on densely populated areas. In London, we continue to monitor and report disparities in COVID-19 outcomes, as part of the surveillance mechanism to the Health Equity Group, reporting to the London Health Board. The learning informs our actions as we continue to collaborate with partners, including community members in our work to reduce health inequalities.

Recommendations

Based on the learning outlined in this document, recommendations include:

- Continue to maximise and leverage the gains made in research translation into practice – and making best use of data.
- Recognise the current limitations of data and assume a greater need for targeted services for ethnic minority communities, particularly in areas of greater socioeconomic deprivation.
- Secure two-way conversation between communities and service providers, policy makers in health and care.
- Address ethnic disparities through a range of different pathways that meet all elements of the social determinant's framework including efforts to promote anti-racism.

List of Abbreviations

BAME	Black, Asian and Minority Ethnic
CIS	COVID-19 Infection Survey
COVID-19	Coronavirus disease 2019
GLA	Greater London Authority
GP	General Practice
IFR	Infection Fatality Ratio
JCVI	Joint committee on Vaccinations and Immunisations
LD	Learning Disabilities
LFD	Lateral flow devices
NHS	National Health Services
ONS	Office of National Statistics
PCR	Polymerase Chain reaction
REACT	Real-time assessment of community transmission
SAGE	Scientific Advisory Group for Emergencies
SEP	Socio-economic position
UK	United Kingdom
VCSE	voluntary, community and social enterprise

Appendix

Details of literature search

Terms used for the search relating to Ethnic minority groups:

((corona* or corono*) adj1 (virus* or viral* or virinae*)) OR (CoV not (Coefficien* or "co-efficien*" or covalent* or Covington* or covariant* or covarianc* or "cut-off value*" or "cutoff value*" or "cut-off volume*" or "cutoff volume*" or "combined optimi?ation value*" or "central vessel trunk*" or CoVR or CoVS)) OR (coronavirus* or 2019nCoV* or 19nCoV* or "2019 novel*" or Ncov* or "n-cov" or "SARS-CoV-2*" or "SARSCoV-2*" or SARSCoV2* or "SARS-CoV2*" or "severe acute respiratory syndrome*" or COVID*2)

AND

discriminat* or racial abuse or racism or racist OR mental health or mental* ill* or mental disorder* or emotion* or wellbeing or well being or fear or anxiety or psycholog* stress* or psycholog* distress*) OR health service* adj3 ("use" or utiliz* or activit* or need* or demand* or access* or disrupt*)) OR

(poverty or income or unemploy* or zero hour contract* or flexible contract* or gig economy or flexible work*) OR literacy or numeracy or education or school* OR wider impact* or indirect impact* or wider determinant* or social determinant OR hospitali* or ((admission* or admit*) adj3 hospital*)) OR mortalit* or death*) OR social cohes* or community cohes* or (disrupt* adj3 communit*))

AND

("BAME" or BME or (ethnic* adj5 (population* or group* or minorit*)) or (racial adj5 disparit*) or (ethnic adj5 disparit*) or "people of color" or "people of colour" or "racial* minorit*" or "Race Factor*" or "mixed race" or "mixed racial").

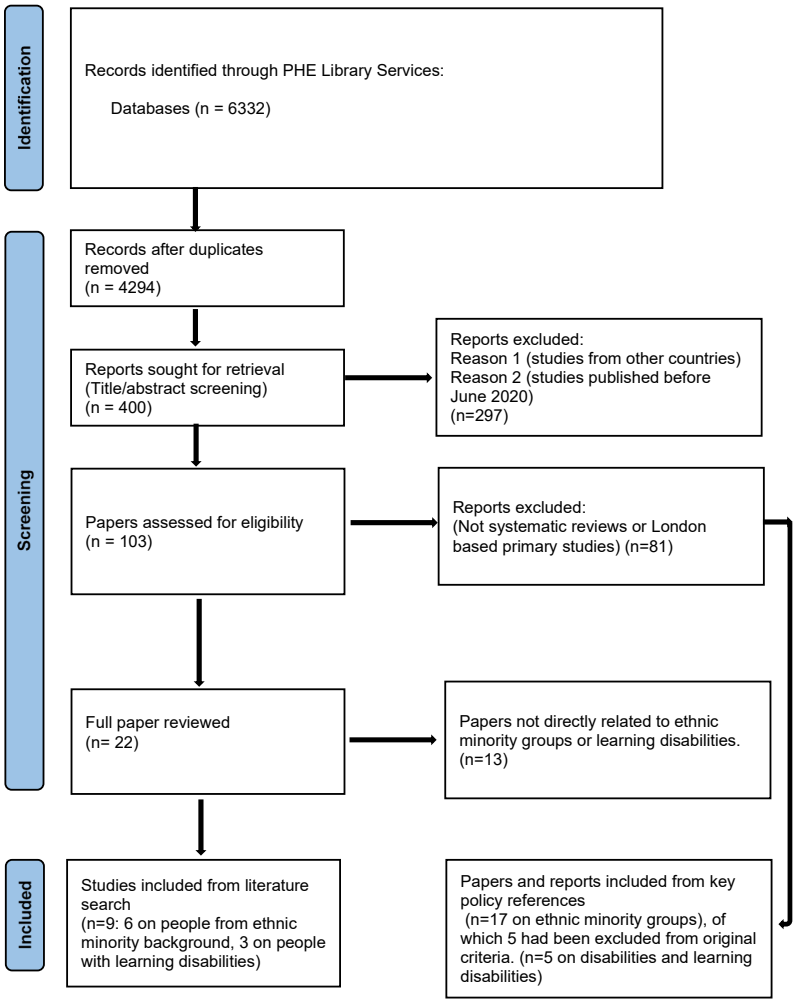


Figure 15. PRIMSA diagram

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