


Ethnic and racial disparities in COVID-19-related deaths: counting the trees, hiding the forest

Sanni Yaya ,^{1,2} Helena Yeboah,¹ Carlo Handy Charles,^{3,4} Akaninyene Otu,^{5,6} Ronald Labonte⁷

To cite: Yaya S, Yeboah H, Charles CH, *et al*. Ethnic and racial disparities in COVID-19-related deaths: counting the trees, hiding the forest. *BMJ Global Health* 2020;**5**:e002913. doi:10.1136/bmjgh-2020-002913

Handling editor Seye Abimbola

Received 14 May 2020

Accepted 16 May 2020

INTRODUCTION

As COVID-19 continues to sweep across the globe leaving thousands of victims in its wake, preliminary data from the USA suggest that minorities, especially black people, have been infected and killed at a disproportionate rate across the country.¹ The most recent data released by the Center for Disease Control and Prevention suggests that black communities are disproportionately affected (when it comes to hospitalisation and deaths) by the coronavirus. In Illinois, 37% of the total confirmed cases and 45% of COVID-19 deaths are African Americans, although they account for only 16% of the state population.² There have been similar trends of infections and deaths in Michigan, Missouri, North Carolina and South Carolina. Other evidence also revealed an over-representation of Latinos and Asians in COVID-19 infection rates when compared with their nationwide populations.³

Similar patterns showing disproportionate infections and deaths in various parts of the globe including Asian countries, Nordic countries and the UK have emerged. People belonging to black and Asian ethnic groups were found to be at a higher risk of in-hospital COVID-19 deaths partly due to deprivation compared with white people.^{4,5} While blacks are more than four times more likely to die from COVID-19, individuals of Bangladeshi, Pakistani, Chinese and mixed ethnic groups are about 1.8 times more likely to die from the pandemic.⁶ Somalians in Norway have also recorded infection rates more than 10 times the national average, representing 1586 per 100 000 compared with 140 per 100 000.⁷ A survey in Sweden by the Public Health Agency similarly found that immigrants from Somalia, Syria and Iraq are disproportionately infected by COVID-19; although Somali Swedes are about 0.5%

Summary box

- ▶ COVID-19 has further exposed the strong association between race, ethnicity, culture, socioeconomic status and health outcomes and illuminated monumental ethnoracialised differences reflecting the 'colour of disease'.
- ▶ Racism, segregation and inequality have been invisibly and pervasively embedded in dominant cultures and social institutions for decades.
- ▶ The socioeconomic factors that negatively influence health outcomes within the underserved minority communities must be identified and contextualised within historical, political, social and economic contexts.
- ▶ Acquisition of disaggregated data will be vital in identifying gaps in the social determinants of these health disparities and tailoring global policy responses.

of the national population, they form 5% of confirmed cases.⁸

The idea that health disparities are massively influenced by race, ethnicity and culture is not novel. Despite significant advances in civil rights and the narrowing of differences in morbidity and death rates among disadvantaged communities, health disparities among ethnic groups remain a far-reaching issue globally.^{4,5} The world's poorest populations are disproportionately affected by malaria, tuberculosis and HIV/AIDS, which are the most fatal communicable diseases in the world.⁶ The impoverished and under-represented minority populations are also not spared the burden of chronic and debilitating infections aptly termed 'the neglected infections of poverty'.

Ethnic and racial discrimination and socioeconomic status (SES) are strongly associated with many health and healthcare outcomes.^{9,10} Racism is associated with poor health service use outcomes with individuals who report



© Author(s) (or their employer(s)) 2020. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

Correspondence to

Dr Sanni Yaya;
sanni.yaya@uottawa.ca

experiencing racism two to three times more likely to report low satisfaction and trust in health services and professionals.¹¹ SES indicated by income, education or occupation plays an important role in health outcomes as individuals with relatively fewer resources may be forced to accept a minimum wage job or unsafe working conditions to maintain a family even at the risk to their own health. With less income, access to quality health-care can be limited, especially in countries with limited public healthcare. Such disadvantages result in ethnic stigma and greater poverty which further lead to psychological distress, mental health-related disorders, drinking problems, chronic obstructive pulmonary disease and obesity.^{12 13}

A large body of evidence suggests that structural inequality is a key determinant of who gets affected by disease and its socioeconomic fallout,^{14–16} the most affected being those who are most vulnerable with underlying conditions and limited access to quality care. Such persons are also more prone to occupational exposure to infectious diseases, including COVID-19, as they tend to have employment in restaurants, food outlets, healthcare settings and essential services where contagion is more likely to occur.¹⁷ These individuals are also prone to high exposure as they tend to commute to work by public transport where it may be difficult to practice physical distancing.

The COVID-19 pandemic has illuminated a disturbing and inconvenient truth: the ‘colour of health’ and how ethnoracialised differences in health outcomes have become the new normal across the world.¹⁶ This commentary examines how racism, segregation and inequality, which have been for decades invisibly and pervasively embedded in dominant cultures and social institutions, now emerge as a monumental COVID-19 challenge.

‘THE COLOUR OF DISEASE’: COVID-19 AND SOCIAL DETERMINANTS OF HEALTH

Social determinants of health are key factors that shape the conditions surrounding how individuals are born, grow, live, work and age in specific environments.¹⁸ These determinants are themselves influenced by the unequal distribution of resources, money and power at the local and global levels, leading to health inequities among groups of people.¹⁹

As the coronavirus continues to tighten its grip on many nations, states dominated by African Americans in the USA are recording high infection and mortality rates, as in the case of Illinois. In Michigan, 33% of individuals who tested positive and 50% of those who died were African Americans although this group accounts for only 15% of the population.¹⁰ In the UK, black and minority ethnic groups are 13% of the country’s population but account for one-third of infected individuals who are admitted at critical care units in hospitals.⁷ Persons who are socioeconomically disadvantaged, such as those who experience multidimensional poverty, have lower

education levels and live in more dangerous neighbourhoods, also tend to have underlying health conditions that place them at higher risk for severe COVID-19.^{12 20–24}

The additional burden of racism which predisposes individuals to high-risk jobs and lower quality care has precipitated high rates of infections and death from COVID-19 among ethnic minorities.^{25 26} In many South-east Asian countries including Singapore, Malaysia and Thailand, millions of stranded foreign migrant workers from Myanmar, Philippines, Cambodia and Laos are at greater risks of COVID-19 infections, while Asian migrant workers in Gulf states face disproportionately high rates of COVID-19 infections, for example, accounting for 70%–80% of all new cases in Saudi Arabia. Similarly in the state of New York, poorer neighbourhoods in Queens are recording higher per capita rates of COVID-19 infections than richer neighbourhoods in Manhattan, while neighbourhoods with high proportions of black American (The term black Americans and African Americans are considered interchangeable) and Hispanic (Hispanic is a term referring to people of (generally) Latin American origin, primarily Mexican, living in the USA) populations are recording higher infection rates per capita.²⁷ However, these findings point to correlations and not causation; there may be other underlying causes of such high number of COVID-19 cases among these minority groups.

Racism is a complex social system underpinned by unequal power relations and beliefs, resulting in ethnic minorities often being negatively stereotyped or marginalised.^{10 28 29} Such ethnoracialised stereotypes lead to stress and impair decision-making processes resulting in further anxiety and aggressive behaviours.²⁹ Research has shown that black Americans tend to experience lower quality perinatal and neonatal care and such disparities are associated with behavioural, physical and neurodevelopmental impairment that affect these individuals in later life.²⁵ These factors contribute to the development of chronic health conditions that increase the risk of death from COVID-19. In this context, it is very concerning that ethnic and racial disparities also seem to be creeping into the care of persons with COVID-19. In states like Tennessee, African Americans with COVID-19 symptoms are reportedly less likely to be tested for the disease than white counterparts and the testing centres are preferentially located in areas occupied by predominantly white communities.¹⁶

WHY COLOUR-BLIND DATA EXACERBATES RACIAL INEQUITIES IN HEALTH

Healthcare data enable health systems to understand the pattern of diseases, develop holistic policies and enhance health outcomes. Such data can also be used to determine how changes in healthcare systems and diseases impact ethnic and racial minorities differently in order to undertake timely interventions to improve quality of care.³⁰ This means that in places where

minorities are increasing in number, ethnic and racial data will be essential to understanding and addressing the inequalities and challenges they face with respect to healthcare.³¹ The need for such disaggregated data is becoming increasingly obvious as the COVID-19 pandemic continues to progress. Disaggregated data characteristically reveal patterns and underlying trends which become crucial to planning appropriate and efficient responses to pandemics. In pandemics, high-quality disaggregated data are vital to identifying the vulnerable populations and factors which impede or promote disease transmission within communities.³² As pandemics do not affect all populations in a similar manner, the elucidation of key indices such as age, sex, ethnicity, education, SES and geographic location is particularly pertinent.

Countries such as UK, USA, Canada, Sweden and Singapore are technologically and scientifically advanced in terms of healthcare. However, it is well known that ethnic and racial minorities continue to experience disproportionate health outcomes which predate the current COVID-19 crisis.³⁰ These groups record poorer health outcomes and have high prevalent rates in asthma, cancer, cardiovascular disease and HIV/AIDS.²⁰ Ethnic and racial minorities in the USA and UK record language barriers, poorer healthcare experiences and higher uninsured rates, which makes it less likely to access healthcare services.^{33 34} Between 2010 and 2018, black Americans were 1.5 times more likely to be uninsured while Hispanics were over 2.5 times less likely to be insured compared with the rates of white Americans. Ethnic minorities face economic and social disadvantages over the course of life and such inequalities result in low access and utilisation of healthcare. In places like Singapore, immigrants from neighbouring countries live in shared dormitories with poor working conditions.²⁴ The current COVID-19 crisis appears to be aggravating an already very fragile situation which is characterised by these grave inequalities.

While it is clear that the acquisition of disaggregated data will be crucial in tracking the spread of COVID-19 transmission and tailoring global policy responses, use of such data is not practised. Many countries may lack such detailed data, or, as in Canada, have the data but rarely make effective disaggregated use of it in health research.³² With respect to COVID-19, and when challenged to provide more race-disaggregated data in Canada's pandemic briefings, federal and several provincial health officials pushed back arguing that 'Canada is a colour-blind society', or that 'race-based data are not necessary' during the pandemic.³⁵ With lack of use of quality and available minority data, it is not only difficult for minority populations to understand the causes and patterns of diseases and their environment, but it also limits the government from recognising the impact of health and social policies.³⁶ One Canadian health official, however, notably commented that it was not the time during the pandemic to address how 'longstanding

issues' related to the social determinants of health were affecting black communities during the pandemic.³⁵

TACKLING ETHNIC HEALTH CARE DISPARITIES: USING THE AVAILABLE EVIDENCE TO ACT

To reduce or prevent further ethnoracialised health disparities revealed by the COVID-19 pandemic, it will be important to conduct an intersectional analysis of the socioeconomic factors and social determinants of health.^{37 38} The socioeconomic factors that negatively influence health outcomes within the underserved minority communities must be identified and contextualised within historical, political, social and economic remits.^{5 20}

COVID-19 healthcare service delivery can have a direct impact on the overall health, quality of life and life expectancy of minority populations. But not all groups, and certainly not ethnic minorities in the USA, Singapore and Norway have equitable access to such care. The root cause of the differential treatment of minorities in healthcare settings, notably but not exclusively African Americans, Asians and Hispanics, will need to be identified and innovative policies aimed at closing access and treatment gaps introduced in ways that will guarantee a buy-in from all relevant parties. As many countries become more diverse, it will become increasingly vital to sustain a diverse and culturally competent healthcare workforce.²⁰ Healthcare providers need to be equipped and well informed to address the health needs of the growing minority populations, especially during outbreaks such as COVID-19.

CONCLUSION

Ethnic and racial health disparities continue to plague minority population across several countries resulting in worse health outcomes as reflected in the current COVID-19 crisis. Many ethnic minorities experience low socioeconomic deprivation, poorer healthcare experiences and low health insurance coverage which contribute to inadequate healthcare utilisation and therefore increase in long-term illnesses. These persistent ethnic health disparities have been well known for many decades, but often systematically ignored. The onset of COVID-19 exposes, once more, the racial fault lines that have been the norm in many countries' health systems, and social and economic policies. It is poignant that wealthy countries with technologically advanced health systems still record poor and inequitable health outcomes for their minority populations. As governments' COVID-19 responses unfold, disaggregated data will be vital in identifying gaps in the social determinants of these health disparities and guiding appropriate prevention/response efforts.

Author affiliations

¹School of International Development and Global Studies, University of Ottawa, Ottawa, Ontario, Canada

²The George Institute for Global Health, University of Oxford, Oxford, United States

³Department of Sociology, McMaster University, Hamilton, Ontario, Canada

⁴Geography at the Laboratoire Caraïbéen de Sciences Sociales du Centre National de la Recherche Scientifique, Université des Antilles, Schoelcher, Martinique

⁵Department of Infection and Travel Medicine, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom

⁶Department of Internal Medicine, College of Medical Sciences, University of Calabar, Calabar, Cross River State, Nigeria

⁷School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario, Canada

Twitter Sanni Yaya @realSanniYaya and Ronald Labonte @LabonteRonald

Contributors SY led the writing on this viewpoint and wrote the first draft with the assistance of HY, AO, CHC and RL supported manuscript revisions. All authors contributed to the outline, content and critical revision of this article, as well as approved the final version.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

Data availability statement All data relevant to the study are included in the article.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iD

Sanni Yaya <http://orcid.org/0000-0002-4876-6043>

REFERENCES

- Evelyn K. "It's a racial justice issue": Black Americans are dying in greater numbers from Covid-19, 2020. Available: <https://www.theguardian.com/world/2020/apr/08/its-a-racial-justice-issue-black-americans-are-dying-in-greater-numbers-from-covid-19> [Accessed 13 Apr 2020].
- Black Demographics. COVID-19: why data shows African Americans might be affected at higher rates, 2020. Available: <https://blackdemographics.com/alarmed-new-covid-19-data-shows-african-americans-might-be-affected-at-higher-rates/> [Accessed 13 Apr 2020].
- APM Research Lab. The color of Coronavirus. COVID-19 deaths by race and ethnicity in the U.S., 2020. Available: <https://www.apmresearchlab.org/covid/deaths-by-race> [Accessed 15 Apr 2020].
- Williamson E, Walker AJ, Bhaskaran KJ, et al. OpenSAFELY: factors associated with COVID-19-related Hospital death in the linked electronic health records of 17 million adult NHS patients. *medRxiv* 2020.
- Barr C, Kommenda N, McIntyre N, et al. Ethnic minorities dying of Covid-19 at higher rate, analysis shows, 2020. Available: <https://www.theguardian.com/world/2020/apr/22/racial-inequality-in-britain-found-a-risk-factor-for-covid-19> [Accessed 9 May 2020].
- Jazeera A. Black people in UK four times more likely to die of COVID-19: ONS, 2020. Available: <https://www.aljazeera.com/news/2020/05/black-people-uk-times-die-covid-19-ons-200507092551289.html> [Accessed 9 May 2020].
- Milne R, Cookson C, Kuchler H. Nations look into why coronavirus hits ethnic minorities so hard, 2020. Available: <https://www.ft.com/content/5fd6ab18-be4a-48de-b887-8478a391dd72> [Accessed 9 May 2020].
- Rothschild N. The Hidden Flaw in Sweden's Anti-Lockdown Strategy, 2020. Available: <https://foreignpolicy.com/2020/05/07/sorry-americans-you-havent-even-had-real-lockdown-yet-coronavirus-spain/> [Accessed 9 May 2020].
- Paradies Y, Ben J, Denson N, et al. Racism as a determinant of health: a systematic review and meta-analysis. *PLoS One* 2015;10:e0138511.
- Williams DR, Mohammed SA. Racism and health I: pathways and scientific evidence. *Am Behav Sci* 2011;54:253-274.
- Hahn RA, Truman BI, Williams DR. Civil rights as determinants of public health and racial and ethnic health equity: health care, education, employment, and housing in the United States. *SSM Popul Health* 2018;4:17-24.
- Public Health Agency of Canada. Key health inequalities in Canada: a national Portrait, 2018. Available: <https://books-scholarsportal-info.proxy.bib.uottawa.ca/en/read?id=/ebooks/ebooks5/cpcd5/2019-10-07/1/10100985> [Accessed 15 Apr 2020].
- WHO. Human rights and health, 2017. Available: <https://www.who.int/news-room/fact-sheets/detail/human-rights-and-health> [Accessed 14 Apr 2020].
- Bailey ZD, Krieger N, Agénor M, et al. Structural racism and health inequities in the USA: evidence and interventions. *Lancet* 2017;389:1453-63.
- Williams DR, Lawrence JA, Davis BA. Racism and health: evidence and needed research. *Annu Rev Public Health* 2019;40:105-25.
- Farmer B. Long-Standing racial and income disparities seen creeping into COVID-19 care, 2020. Available: <https://www.modernhealthcare.com/safety-quality/long-standing-racial-and-income-disparities-seen-creeping-covid-19-care> [Accessed 14 Apr 2020].
- Stafford K, Hoyer M, Morrison A. Coronavirus is killing black Americans at a much higher rate. Available: <https://globalnews.ca/news/6799322/coronavirus-black-americans/>
- WHO. About social determinants of health, 2020. Available: http://www.who.int/social_determinants/sdh_definition/en/
- NEJM Catalyst. Social Determinants of Health (SDOH). Nejm Catal, 2017. Available: <https://catalyst.nejm.org/doi/abs/10.1056/CAT.17.0312> [Accessed 14 Apr 2020].
- Thomas B. Health and health care disparities: the effect of social and environmental factors on individual and population health. *Int J Environ Res Public Health* 2014;11:7492-507.
- Cassedy A, Drotar D, Ittenbach R, et al. The impact of socio-economic status on health related quality of life for children and adolescents with heart disease. *Health Qual Life Outcomes* 2013;11:99.
- Center for Disease Control Morbidity and Mortality Weekly Report (CDCMMWR). Preliminary estimates of the prevalence of selected underlying health conditions among patients with coronavirus disease 2019 — United States, 2020. Available: <https://www.cdc.gov/mmwr/volumes/69/wr/mm69i3e2.htm>
- American Psychological Association. Ethnic and Racial Minorities & Socioeconomic Status, 2016. Available: <https://www.apa.org/pi/ses/resources/publications/minorities> [Accessed 14 Apr 2020].
- Sainsbury M. Southeast Asia's migrant workers face Covid-19 tragedy - UCA News, 2020. Available: <https://www.ucanews.com/news/southeast-asias-migrant-workers-face-covid-19-tragedy/87842> [Accessed 9 May 2020].
- Beck AF, Edwards EM, Horbar JD, et al. The color of health: how racism, segregation, and inequality affect the health and well-being of preterm infants and their families. *Pediatr Res* 2020;87:227-34.
- Cineas F. Covid-19 is disproportionately taking black lives, 2020. Available: <https://www.vox.com/identities/2020/4/7/21211849/coronavirus-black-americans> [Accessed 13 Apr 2020].
- Dobkin J, Gottehrer-Cohen Z. The very unequal impact of COVID-19 on NYC neighborhoods, 2020. Available: <https://gothamist.com/news/very-unequal-impact-covid-19-nyc-neighborhoods> [Accessed 14 Apr 2020].
- Ben J, Cormack D, Harris R, et al. Racism and health service utilisation: a systematic review and meta-analysis. *PLoS One* 2017;12:e0189900.
- Inzlicht M, Kang SK. Stereotype threat spillover: How coping with threats to social identity affects aggression, eating, decision making, and attention - ProQuest. Available: https://search-proquest-com.proxy.bib.uottawa.ca/docview/745195007?rfr_id=info%3Axri%2Fsid%3Aprimo
- Zhang X, Pérez-Stable EJ, Bourne PE, et al. Big data science: opportunities and challenges to address minority health and health disparities in the 21st century. *Ethn Dis* 2017;27:95-106.
- Cooney E. Who gets hospitalized for Covid-19? report shows race and sex disparities, 2020. Available: <https://www.statnews.com/2020/04/09/hospitalized-covid-19-patients-differences-by-race-and-sex/> [Accessed 13 Apr 2020].
- Khan M, Kobayashi K, Lee S. (In)Visible Minorities in Canadian Health Data and Research. Popul Change Lifecourse Strateg Knowl Clust Discuss Pap Ser Un Réseau Strat Connais Chang Popul Parcours Vie Doc Trav, 2015. Available: <https://ir.lib.uwo.ca/plcl/vol3/iss1/5>
- Artiga S, Orgera K, Pham O. Disparities in health and health care: five key questions and answers, 2020. Available: <https://www.kff.org>

- org/disparities-policy/issue-brief/disparities-in-health-and-health-care-five-key-questions-and-answers/ [Accessed 15 Apr 2020].
- 34 Evandrou M, Falkingham J, Feng Z, *et al*. Ethnic inequalities in limiting health and self-reported health in later life revisited. *J Epidemiol Community Health* 2016;70:653–62.
 - 35 The Conversation. Coronavirus discriminates against black lives through surveillance, policing and the absence of health data, 2020. Available: <https://theconversation.com/coronavirus-discriminates-against-black-lives-through-surveillance-policing-and-the-absence-of-health-data-135906> [Accessed 21 Apr 2020].
 - 36 Grant T, Balkisoon D. How Canada's racial data gaps can be hazardous to your health, 2019. Available: <https://www.theglobeandmail.com/canada/article-how-canadas-racial-data-gaps-can-be-hazardous-to-your-health-and/> [Accessed 15 Apr 2020].
 - 37 Cogburn CD. Culture, race, and health: implications for racial inequities and population health. *Milbank Q* 2019;97:736–61.
 - 38 Otu A, Ebenso B, Labonte R, *et al*. Tackling COVID-19: can the African continent play the long game? *J Glob Health* 2020;10:010339.