



## Commentary

# Ethnicity and COVID-19 - A commentary on “World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19)” (Int J Surg 2020;76:71-6)

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## Dear Editor,

We were pleased to read the detailed summary by Sohrabi et al. on insights gained from the emerging COVID-19 pandemic [1]. Over the course of the past few months there has been increasing evidence to show that COVID-19 does not impact all population groups equally. Indeed, emerging data has shown us that ethnicity, age, sex and other demographics are all linked to increased risk of becoming infected with COVID-19 [2] and a greater mortality [3].

For this commentary, we focus on the role of comorbidity, deprivation and occupation in the disproportionately high infection and mortality rates amongst Black, Asian, and Minority Ethnic (BAME) individuals. We recognise, however, that even scrutinising the detailed breakdown of mortality through the metric of ethnicity assumes factors such as social structure, culture and behavioural patterns. Nonetheless, it is helpful and important to raise the questions around this topic and provide clarity on the factors underlying this disparity.

The first indicators of a vulnerable population came in the form of reports of BAME health workers dying from COVID-19, prompting the government to launch a review [4]. This review, undertaken by Public Health England (PHE), showed that when accounting for age, sex, deprivation, demographics and ethnicity, people of Bangladeshi ethnicity had around twice the risk of death compared to people of White British ethnicity. Similarly, Chinese, Indian, Pakistani, Other Asian, Caribbean and Other Black ethnicities had between 10% and 50% higher risk of death when compared to White British ethnicity [5]. One important factor is the presence of an existing health inequality. Comorbidity has been identified as an important risk factor for adverse outcomes in patients with COVID-19 [6,7], and several cardiometabolic conditions are over-represented in some of the minority ethnic groups discussed above. For instance, data from the Health Improvement Network database of over 400,000 patients in London showed that people of Asian and Black ethnic groups had a higher prevalence of type 2 diabetes compared to the White British population [8]. Similarly,

according to The Institute for Fiscal Studies (IFS), in people over the age of 45, cardiometabolic health problems are almost twice as prevalent in Bangladeshi groups, and about 1.2–1.4 times more prevalent in Pakistani, Indian and Black African groups compared to White British groups [9]. A possible conclusion we could draw from these findings is that the disproportionate mortality seen in BAME groups is explained by the higher prevalence of comorbidities. However, can these unfavourable COVID-19 outcomes be entirely attributed to increased comorbidity representation in BAME groups or are there other factors to consider?

A key aspect of general inequality is deprivation. The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation in England and encompasses seven distinct domains including, but not limited to, ‘Income deprivation’, ‘Health Deprivation and Disability’ and ‘Living Environment Deprivation’. The significance of one of these domains is illustrated by the fact that low income workers are more likely to work in shutdown sectors [10], and analysis by the Resolution Foundation [11] shows that fewer than 10% of those in the bottom half of earnings are able to work from home if needed, making social distancing a choice between protecting their income and protecting their health. According to the most recent update of the IMD, people of a BAME background were more likely to live in the most overall deprived 10% of neighbourhoods in England. Of these, the Asian ethnic group (15.7%) were the most likely out of all ethnic groups to live in them, followed by the Black African and Caribbean ethnic group (15.2%) whereas the White ethnic group were the least likely to live in these neighbourhoods (9.0%) [12]. These geographical areas were linked with higher rates of infection with the SARS-CoV-2 virus [13] and the mortality rates were more than double that of the least deprived areas [5]. When accounting for increased population density, the average number of cases per 100,000 population is still significantly higher amongst those with over 20% income deprivation, and this alludes to the vulnerability of low-income workers who are also more likely to be

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frontline workers [14].

As the disproportionate impact on BAME groups was brought to light from the mortality in healthcare workers, it is important to explore this in the context of the broader workforce. BAME staff represent a proportion of the NHS workforce, so one would expect this to be reflected in the mortality statistics. As of June 2, 2020, 243 confirmed health and social care workers have died due to COVID-19 since the start of lockdown (on March 25, 2020). An analysis by the Health Service Journal showed that, of the staff that died, 71% of nurses and midwives, 94% of doctors and dentists, 56% of other healthcare workers, and 29% of 'other staff' were BAME, working during the pandemic. These numbers are particularly stark when taken in the context of the NHS workforce, consisting of 1.2 million workers, of which only 20.6% are BAME [15]. This clear imbalance may suggest some fundamental morbidity associated with ethnicity, as the increased deaths are seen across levels of seniority, role, and location. This disparity may also be attributed to BAME groups making up a larger proportion of 'frontline workers', in which case it can be viewed as an indictment of the protections offered to them, and the conditions they were expected to work in.

As we learn more about the impact of COVID-19 on the population, there is a greater appreciation of the importance of tackling existing health and social inequalities. It is clear that further research must be undertaken, but perhaps more importantly, the significance of this issue should first be recognised more widely and acted upon. Identifying the problem is the first step in addressing it, but it is unfortunate that it took such a burden on the health service to bring the inherent cracks to light. The issues of increased comorbidity, deprivation, poor protection and lack of preparation were present before the pandemic, and all compounded to magnify the terrible consequences on the population.

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Mr Thonmoy Josh Dey was the lead author of this letter. Mr Ankit Sinha was also an author on this article and contributed equally to the preparation of the manuscript.

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## Guarantor

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## Declaration of competing interest

No conflicts of interest to declare.

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