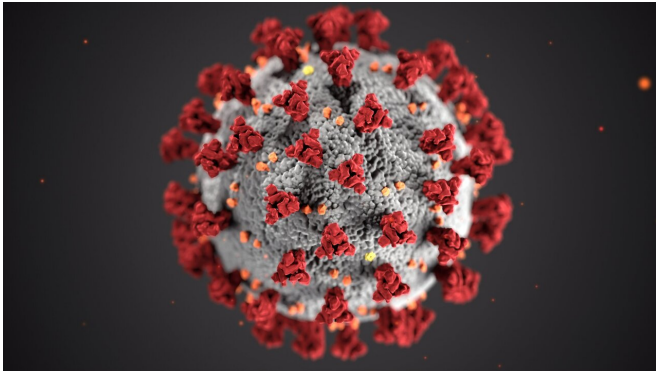


# Black and Asian patients have increased risk of severe COVID-19 at different stages of the disease

9 October 2020



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Patients of Black ethnicity have an increased risk of requiring hospital admission for COVID-19, while patients of Asian ethnicity have an increased risk of dying in hospital from COVID-19, compared to White patients, a study has found.

Data analysis published today in *EClinicalMedicine*, led by researchers at King's College London, with support from the NIHR Guy's and St Thomas' Biomedical Research Centre and the British Heart Foundation (BHF), examines the relationship between [ethnic background](#) and the virus SARS-CoV-2.

The study confirms that minority ethnic patients bear a higher burden of the disease than White patients and also finds that Black patients and Asian patients are affected at different stages of the disease.

Professor Ajay Shah, BHF Professor of Cardiology at King's College London and Consultant Cardiologist at King's College Hospital, said: "The finding that Black versus Asian patients are

affected in quite different ways, and that significant risk persists even after adjustment for deprivation and long-term health conditions, is striking. It strongly suggests that other factors, possibly biological, are important and that we may need different treatment strategies for different ethnic groups. For Black patients, the issue may be how to prevent mild infection progressing to severe whereas for Asian patients it may be how to treat life-threatening complications."

Professor Chris Whitty, Chief Medical Officer for England and Head of the NIHR, said: "The evidence is now clear that people from Black and minority ethnic groups are more severely affected by COVID-19. This NIHR-supported research shows how different groups are affected, providing important information to help healthcare professionals offer the best possible treatment to minority ethnic patients."

The study analysed data from 1,827 adult patients admitted to King's College Hospital, south-east London, with a primary diagnosis of COVID-19 between 1 March and 2 June 2020.

Researchers analysed mortality in this group, and also compared a subset of 872 admitted patients from inner south-east London with 3,488 matched controls residing in the same region to determine how ethnic background is associated with the need for hospitalisation for severe disease. Of these 872 admitted patients, 48.1% were Black, 33.7% White, 12.6% Mixed and 5.6% were Asian ethnicity.

The analysis showed that Black and Mixed ethnicity patients have a three-fold higher risk of requiring hospital admission once infected with COVID-19 compared to White inner-city residents of the same region. This is only partly explained by comorbidities and deprivation as adjusting for these

factors Black patients still have a 2.2 to 2.7-fold higher admission risk. However, in-hospital survival for these patients was not significantly different from White patients.

By contrast, Asian patients did not have a higher risk of requiring [hospital admission](#) with COVID-19 than White patients but their in-hospital death rate and need for intensive care unit admission was higher than the other groups.

The researchers observed that the minority ethnic patients were 10-15 years younger than White patients and had a higher prevalence of comorbidities, especially diabetes.

The study suggests that while comorbidities and socioeconomic factors contribute to the impact of COVID-19 on minority communities, there may be an important role for other factors such as biological factors which affect different subgroups in different ways.

The results of this study are likely to be applicable across the whole of London and similar UK cities, but more research is needed to translate to multi-ethnic populations in other countries.

Dr. Sonya Babu-Narayan, Associate Medical Director at the British Heart Foundation said: "This study provides further evidence that COVID-19 disproportionately affects those whose ethnic background is a minority where they live, as has been seen across the world. Why [coronavirus](#) hits people with an ethnic [minority](#) background harder, and how to mitigate this, has been complex to address."

She continued: "People from Black, Asian and other Minority Ethnic backgrounds more often have heart and circulatory risk factors including high blood pressure and diabetes, and are more exposed to socioeconomic disadvantage, but this study indicates the worse effects of COVID-19 are present even after these are accounted for. Research is now needed to assess how other structural and behavioural factors may contribute, including occupation, access to health messaging and health care, and differences in the patient journey once people reach hospital. As we see

COVID-19 cases rise again in the UK, we must address these disparities with urgency."

**More information:** *EClinicalMedicine*, [DOI: 10.1016/j.eclinm.2020.100574](https://doi.org/10.1016/j.eclinm.2020.100574)

Provided by King's College London

APA citation: Black and Asian patients have increased risk of severe COVID-19 at different stages of the disease (2020, October 9) retrieved 21 September 2022 from <https://medicalxpress.com/news/2020-10-black-asian-patients-severe-covid-.html>

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