

COVID-19 vaccination uptake rates and sociodemographic variability



The UK was the first country in the world to offer mass vaccination programme for COVID-19 in December 2020. 10 months later, nearly 90% of the UK adult population had received their first dose.

In this summary, we share the evidence of how sociodemographic inequalities influenced COVID-19 vaccination uptake in England.



Sex

- More women than men have been vaccinated.
- The gap between men and women was largest in earliest months of the roll-out; whilst narrower now, the gap still exists.
- The gap reduced with age; almost the same amount of women and men are vaccinated for people aged over 60 years.



Ethnicity

- People from White British and Indian ethnic backgrounds had the highest vaccination rates.
- People identifying as Black Africans aged 80 years and above, and people from Black Caribbean backgrounds aged between 18-79 years old had the lowest vaccination rates.

Ethnicity and Age

- People identifying as having an Indian background and aged between 18-29 years old initially had the highest rate of vaccine uptake.
- In people aged 80 years old and above, those identifying as Black African were least likely to have been vaccinated.



Religion

- People identifying as Hindu and Christian were most likely to have been vaccinated.
- People identifying as Muslim were least likely to have been vaccinated.

Religion and Age

- Adults aged over 70 years who identified as Christian had the highest rates of vaccination.
- In younger age groups, vaccination uptake was greatest among those identifying as Hindu.
- By August 2021, 71% of adults identifying as Muslim had received at least one dose of the vaccination compared to 90% of people identifying as Hindu or Christian.

Top 5 messages:

1. Achieving a high rate of vaccination in the whole population, and not just in those at the highest risk, is an important way to slow down the spread of COVID-19 infection, reduce hospital admissions, and help healthcare systems and countries recover from the pandemic.
2. Despite high profile, national health awareness campaigns to support the roll-out of COVID-19 vaccinations, there were large inequalities in vaccination uptake rates.
3. The decision to have the vaccination was influenced by a person's sex, ethnicity, religion, level of poverty, disability, understanding of the English language, socio-economic status, and qualification level. Some of these differences varied more when comparing vaccination uptake by age groups.
4. The most significant factors influencing the decision to have the vaccination or not were ethnicity and religious identity. This is particularly important as many of these groups have been disproportionately affected by COVID-19, and have experienced higher rates of severe illness and death.
5. We need to understand why these inequalities exist. By having a better understanding of why they occur, healthcare practitioners and policymakers can improve health messages and awareness campaigns.



Citation: Dolby et al. Monitoring sociodemographic inequality in COVID-19 vaccination uptake in England: a national linked data study; accepted for publication in *Journal of Epidemiology & Community Health*

This research was funded by ONS and PHE, and supported by a grant from the UKRI (MRC)-DHSC (NIHR) COVID-19 Rapid Response Rolling Call (MR/V020536/1) and from HDR-UK (HDRUK2020.138). This study output is supported by the National Institute for Health Research (NIHR) Applied Research Collaboration East Midlands (ARC EM). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.