Interim information note on PHE's work on ethnicity and COVID-19

- At the request of the Secretary of State I asked Prof John Newton at PHE to produce a rapid review of the current data already available to PHE on ethnicity and health. They have now done this in a clear and comprehensive report (Appendix 1), and some supplementary analyses I asked for (Appendix 2). This is complemented by their commentary on other analyses which have been done by academic groups (summarised in Appendix 3).
- 2) In parallel PHE are engaging with professional, academic, local government, voluntary and community groups and will continue to do so led by Prof Kevin Fenton.
- 3) PHE will be publishing this analysis alongside those into other risk factors at the end of May. One question is whether given the public interest in this topic they should publish this report in advance of those on other risk factors.
- 4) Some clear messages come from this report, but with some caveats. Routine data on ethnicity is often incomplete. The data available did not allow for full testing of the impact of differences in comorbidities as an explanation for the differences. And it is clear from the data that different ethnic minority groups differ in a number of respects that might affect their risk of a poor outcome from Covid-19.
- 5) Risk factors for acquiring COVID-19 are probably different from risk factors for having severe disease once infected. The PHE report examines both. The key question for tackling this is to understand the risk factors, as this allows us to explore ways to address them.

Increased risk of acquiring COVID-19

- 6) People from some ethnic minority backgrounds (notably of Black Caribbean heritage) are more likely to be tested for COVID-19 than the White British population. This needs to be interpreted remembering that during the period these data were collected almost all tested were hospitalised, so in reality this means were more likely to have significantly symptomatic COVID-19.
- 7) The positivity rate for COVID-19 was higher in those tested in most ethnic minority groups, so this was not because they were being tested with a lower threshold. People of Black ethnic groups had the highest proportion of positive tests at 44.5%, followed by people in Asian ethnic groups with 39.4%, where the test positivity rate in the White population was 29%.
- Overall, there were 196/100,000 population who tested positive for COVID-19. Black ethnic groups were higher at 269.0/100,000 and rates were particularly high for Black Caribbean ethnicity 333.4/100,000.
- 9) Overall this implies the rate of acquiring COVID-19 is higher in several ethnic minority groups. [DN: Could this also be the result of different patterns of healthcare access and utilisation, with late diagnosis and more complication presentation being a feature in some communities?] We need community studies before this can be tested with certainty, but it is probable.
- 10) Higher risks for becoming infected could include greater urban living, socioeconomic factors, being in person-facing jobs; genetic factors cannot be excluded. The ONS data published yesterday shows a clear association between one's occupation and the probability of social contact and risk of exposure to COVID with the highest risk of COVID-19 deaths seen among low-skilled workers such as male security guards, taxi drivers and chauffeurs – professions with high proportion of BAME workers.

Increased risk of severity and mortality

- 11) The data on proportion of people who are diagnosed and then go on to require ICU care for COVID-19 shows relative over-representation of BAME groups. This is particularly marked at younger ages (meaning under 70 but above 50 years old). Figure 5 in the Report is particularly striking.
- 12) Crude mortality data rate was higher in people in Black ethnic groups (56.8 per 100,000). Crude mortality rates were noticeably high for people of Black Caribbean ethnicity (102.2 deaths per 100,000 population) but not in people of Black African heritage. In the general population it was 38.3 deaths per 100,000 population.
- 13) It is however a complex picture, and in adjusted data when compared to White British ethnicity, the odds of COVID-19-related death in a confirmed case were highest among Bangladeshi ethnicity (aOR=2.32 (95% CI 1.85 2.90)), Pakistani ethnicity (OR=1.57 (95% CI 1.38 1.79)), "Any other" Black background (aOR=1.44 (95% CI 1.20 1.74)), Indian ethnicity (aOR=1.24 (95% CI 1.11 1.38)) and Black Caribbean ethnicity (aOR=1.20 (95% CI 1.07 1.34)).
- 14) These data are not controlled for coexisting health conditions, and it is likely there is some residual confounding. The data have been analysed as well as they can be; they will be easier to interpret once all the PHE analyses of other risk factors are completed.
- 15) There is however already reasonably good evidence for an overrepresentation of severe disease (for which ICU care is a proxy) in several BAME groups, and rather more complex evidence on increased mortality.
- 16) Risks of severe disease or dying are more likely to be related to comorbidities or genetic factors, although these are in turn often related to socioeconomic factors.

Comments

- 17) These are very clear and well analysed data, with overlap with other recent analyses (unsurprising given much of the source data on COVID-19 cases is in common between the studies).
- 18) They indicate evidence of increased rates of COVID-19 infection severe enough to need hospitalisation in several ethnic minority groups. These could be due to multiple overlapping factors, including socioeconomic, the occupation of those of working age (see for example the higher risk activities such as care workers highlighted by ONS yesterday), genetic factors and high rates of co-morbidities.
- 19) They also indicate evidence of increased progression to severe disease at a younger age, and probably increased mortality, in some BAME ethnic groups.
- 20) The data will be easier to interpret in the context of the work on other risk factors PHE is leading.
- 21) The next steps need to move from this analysis, which indicates clearly there is a problem to be addressed, to explore actionable policy interventions that can address underlying risk factors in the short term.
- 22) In addition, a number of academic groups are bidding to analyse research datasets funded by NIHR.
- 23) We will update you when PHE has undertaken the next stages.

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Commented [OAB1]: Shouldn't this be ethnicity