Social and ethnic inequalities and COVID-19

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Institut Pierre Louis d'Épidémiologie et de Santé Publique
Pierre Louis Institute of Epidemiology and Public Health
Pierre Louis (French physician, 1787-1872) contributed to the development of epidemiology

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COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

Last Updated at (M/D/YYYY)
08/11/2021, 09:21

Total Cases	Total Deaths	Total Vaccine Doses Administered
249 906 905	5 049 343	7 250 645 925

28-Day Cases	28-Day Deaths	28-Day Vaccine Doses Administered
11 964 389	196 200	695 568 638

Cases | Deaths by Country/Region/Sovereignty

US
28-Day: 2 113 928 | 40 015
Totals: 46 487 857 | 754 431

United Kingdom
28-Day: 1 154 372 | 4 097
Totals: 9 346 967 | 142 236

Russia
28-Day: 992 638 | 29 665
Totals: 8 651 561 | 242 241

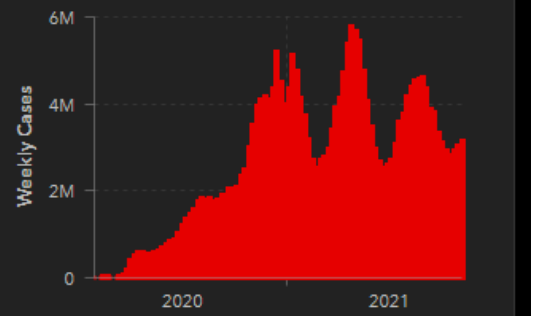
Turkey
28-Day: 789 127 | 5 947
Totals: 8 233 649 | 72 127

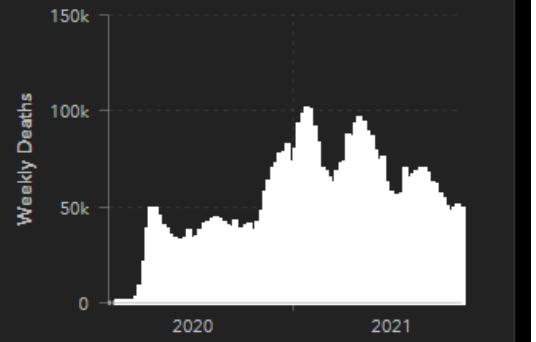
Ukraine
28-Day: 561 268 | 14 325
Totals: 3 232 035 | 77 130

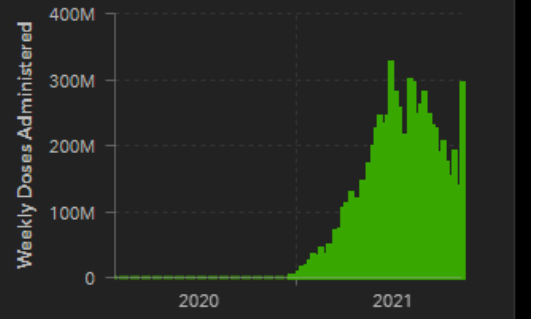
Germany
28-Day: 474 026 | 2 350
Totals: 4 792 465 | 96 563

Admin0

28-Day

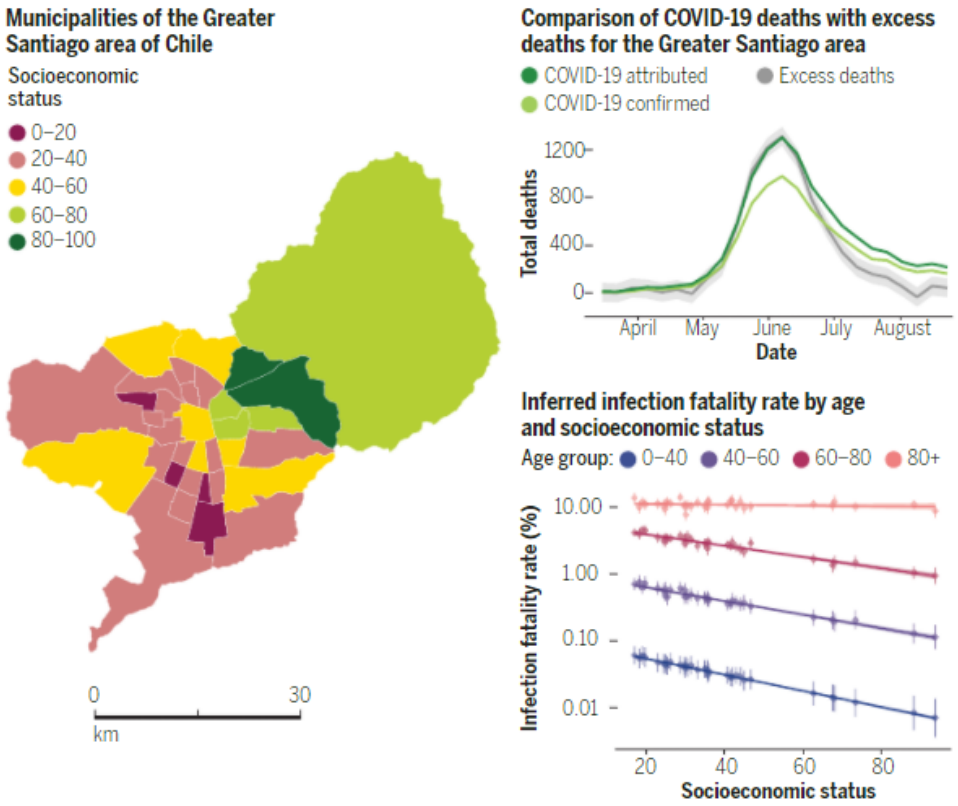






Weekly | 28-Day

Socioeconomic inequalities with regard to COVID-19



Effect of socioeconomic inequalities on COVID-19 outcomes. The map on the left shows the municipalities that were included in this study, colored by their socioeconomic status score. For the comparison between COVID-19 deaths and excess deaths (top right), COVID-19–confirmed deaths are shown in light green and COVID-19–attributed deaths in dark green. Excess deaths, shown in gray, correspond to the difference between observed and predicted deaths. Predicted deaths were estimated using a Gaussian process model. The shading indicates 95% credible intervals for the excess deaths. The infection fatality rates (bottom right) were inferred by implementing a hierarchical Bayesian model, with vertical lines representing credible intervals by age and socioeconomic status.

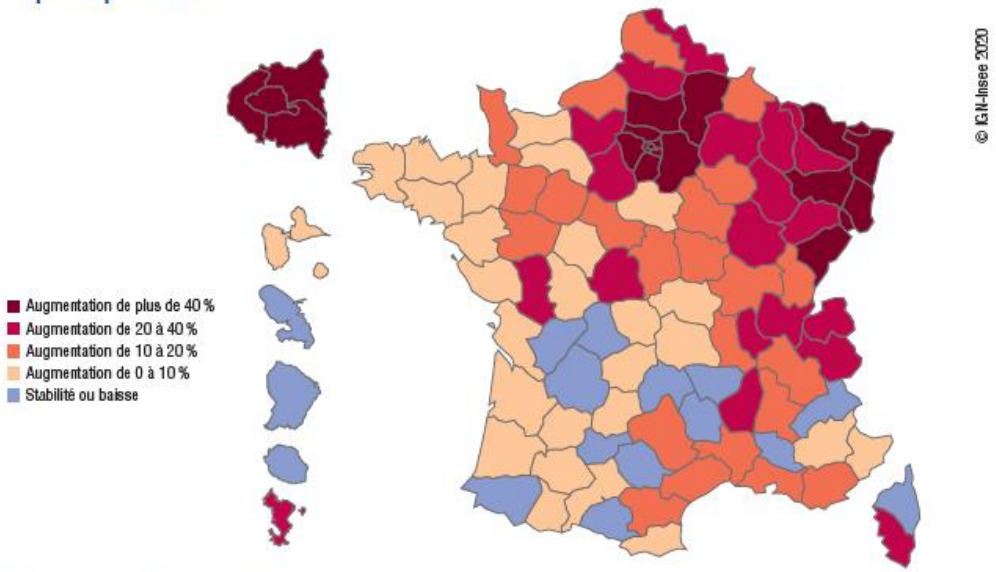
Mena et al, 2021

In low socioeconomic status municipalities:

- less COVID-19 testing
- much higher test positivity and testing delays
- higher level of mortality

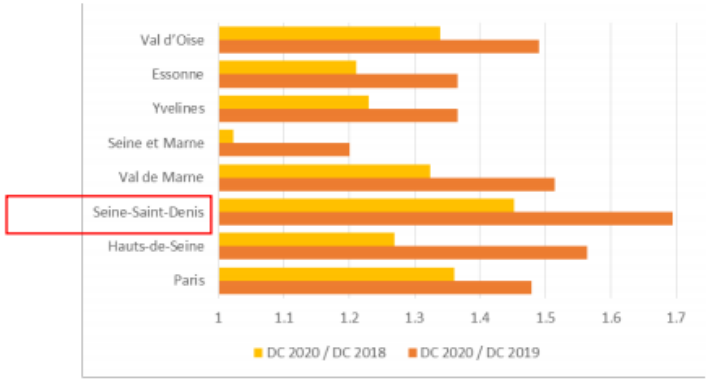
Socioeconomic inequalities with regard to COVID-19 in France

2. Évolution entre 2019 et 2020 des décès cumulés entre le 1er mars et le 30 avril par département



Note : le département est celui où le décès est survenu.
Lecture : en Seine-Maritime, le nombre total de décès entre le 1er mars et le 30 avril est en hausse de 15 % entre 2019 et 2020.
Champ : France.
Source : Insee, statistiques de l'état civil, fichier du 26 juin 2020.

Figure 3 – Rapport entre le nombre de décès domiciliés entre mars 2020 et mars 2019 et 2018

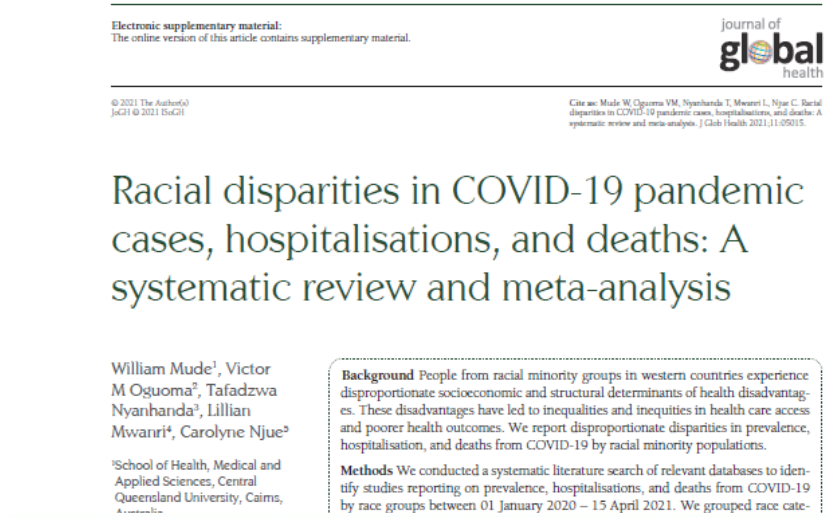


Source : Insee, Etat Civil, données provisoires

ORS - FOCUS SANTÉ EN ÎLE-DE-FRANCE - **7** – La surmortalité durant l'épidémie de Covid-19 dans les départements franciliens

Figure 2 Gradient of the income third decile (left) and COVID-19 hospitalised cases >3 per 1000 inhabitants (right) in Paris residential areas. Non-residential areas are not covered by a red colour gradient.

Ethno-racial disparities with regard to COVID-19



Electronic supplementary material:
The online version of this article contains supplementary material.

journal of global health

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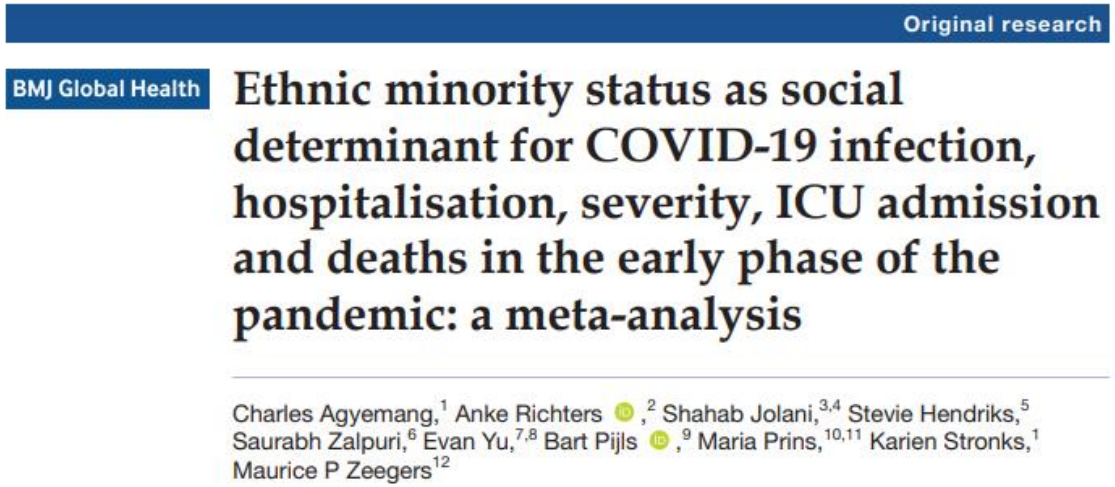
Racial disparities in COVID-19 pandemic cases, hospitalisations, and deaths: A systematic review and meta-analysis

William Mude[1], Victor M Oguoma[2], Tafadzwa Nyanhanda[3], Lillian Mwanri[4], Carolyne Njue[5]

[1]School of Health, Medical and Applied Sciences, Central Queensland University, Cairns, Australia

Background People from racial minority groups in western countries experience disproportionate socioeconomic and structural determinants of health disadvantages. These disadvantages have led to inequalities and inequities in health care access and poorer health outcomes. We report disproportionate disparities in prevalence, hospitalisation, and deaths from COVID-19 by racial minority populations.

Methods We conducted a systematic literature search of relevant databases to identify studies reporting on prevalence, hospitalisations, and deaths from COVID-19 by race groups between 01 January 2020 – 15 April 2021. We grouped race cate-

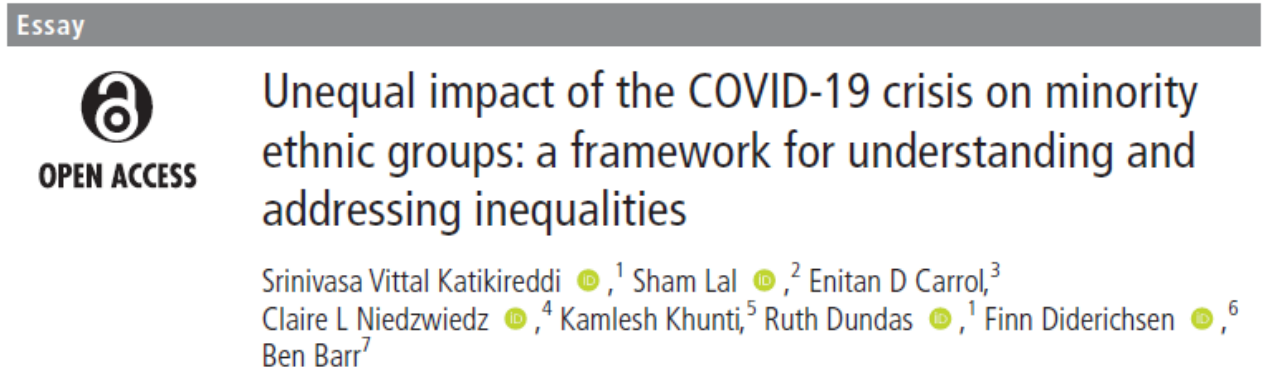


Original research

BMJ Global Health

Ethnic minority status as social determinant for COVID-19 infection, hospitalisation, severity, ICU admission and deaths in the early phase of the pandemic: a meta-analysis

Charles Agyemang,[1] Anke Richters ,[2] Shahab Jolani,[3,4] Stevie Hendriks,[5] Saurabh Zalpuri,[6] Evan Yu,[7,8] Bart Pijls ,[9] Maria Prins,[10,11] Karien Stronks,[1] Maurice P Zeegers[12]

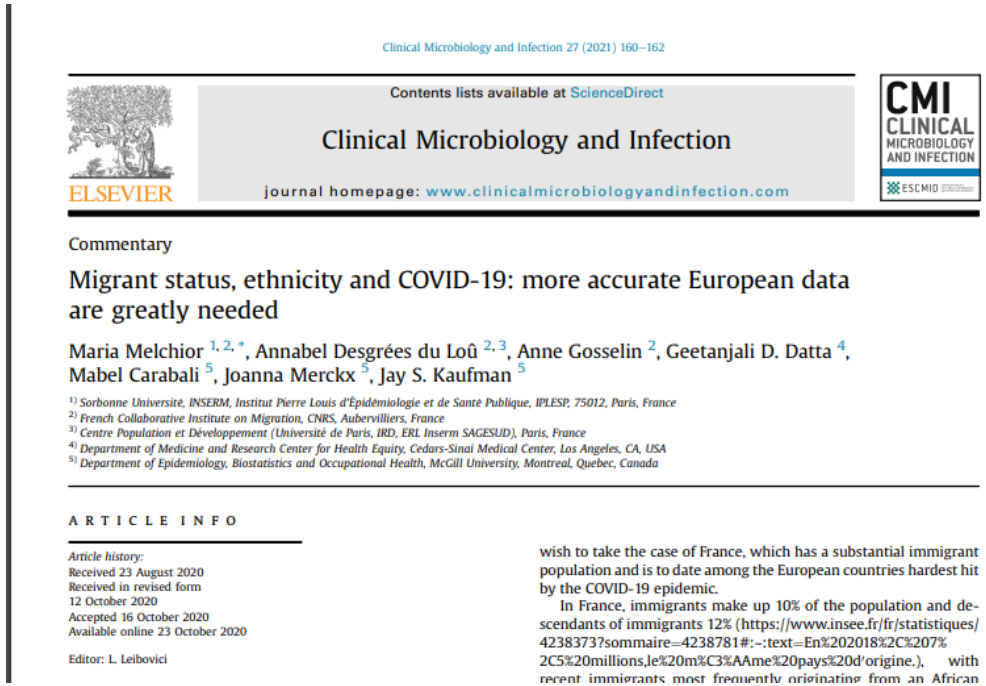


Essay

OPEN ACCESS

Unequal impact of the COVID-19 crisis on minority ethnic groups: a framework for understanding and addressing inequalities

Srinivasa Vittal Katikireddi ,[1] Sham Lal ,[2] Enitan D Carrol,[3] Claire L Niedzwiedz ,[4] Kamlesh Khunti,[5] Ruth Dundas ,[1] Finn Diderichsen ,[6] Ben Barr[7]



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CMI CLINICAL MICROBIOLOGY AND INFECTION

ESCMID

Commentary

Migrant status, ethnicity and COVID-19: more accurate European data are greatly needed

Maria Melchior [1, 2, *], Annabel Desgrées du Loû [2, 3], Anne Gosselin [2], Geetanjali D. Datta [4], Mabel Carabali [5], Joanna Merckx [5], Jay S. Kaufman [5]

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[3] Centre Population et Développement (Université de Paris, IRD, ERL Inserm SAGESUD), Paris, France
[4] Department of Medicine and Research Center for Health Equity, Cedars-Sinai Medical Center, Los Angeles, CA, USA
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wish to take the case of France, which has a substantial immigrant population and is to date among the European countries hardest hit by the COVID-19 epidemic.

In France, immigrants make up 10% of the population and descendants of immigrants 12% (https://www.insee.fr/fr/statistiques/4238373?sommaire=4238781#:~:text=En%202018%2C%207%2C5%20millions,le%20m%C3%AAme%20pays%20d'origine.), with recent immigrants most frequently originating from an African

Ethno-racial disparities and COVID-19

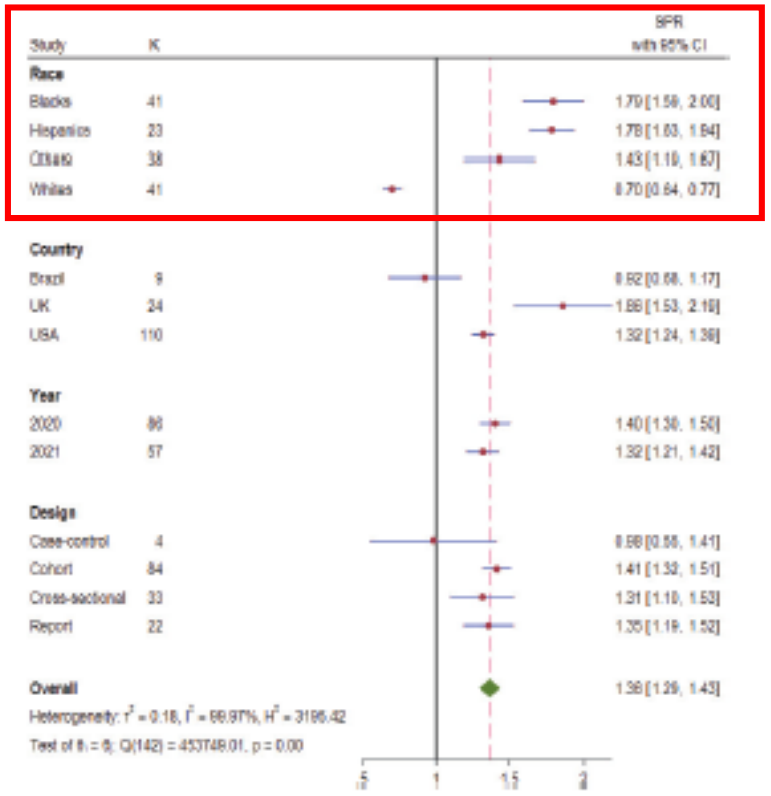


Figure 3. Standardised prevalence ratio (SPR) Forest plots of COVID-19 by race, country, year, and study design.

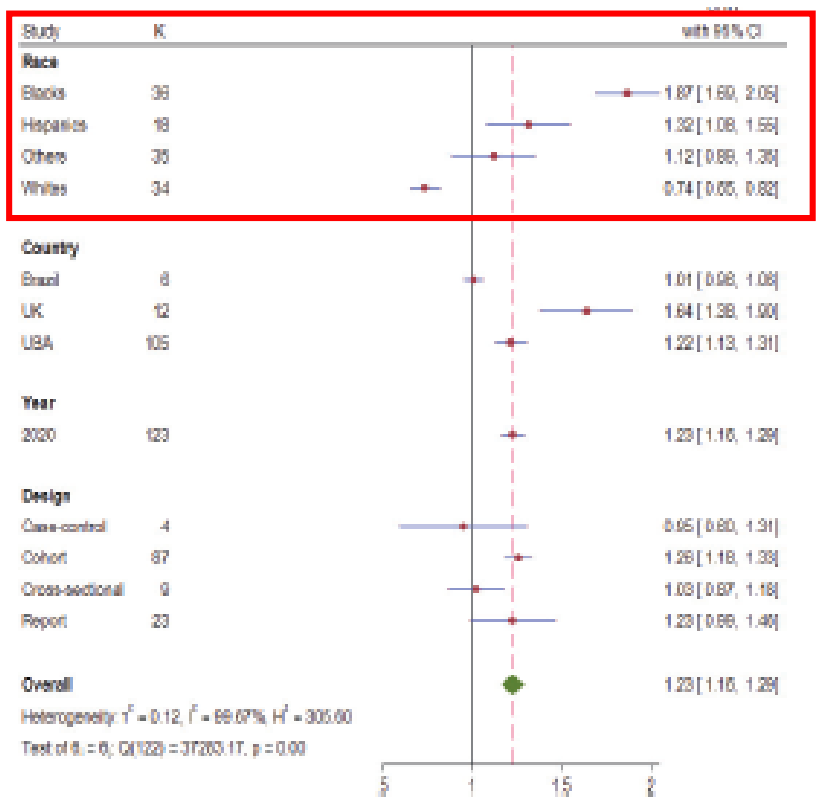


Figure 5. Standardised hospitalisation ratio (SHR) Forest plots of COVID-19 by race, country, year, and study design.

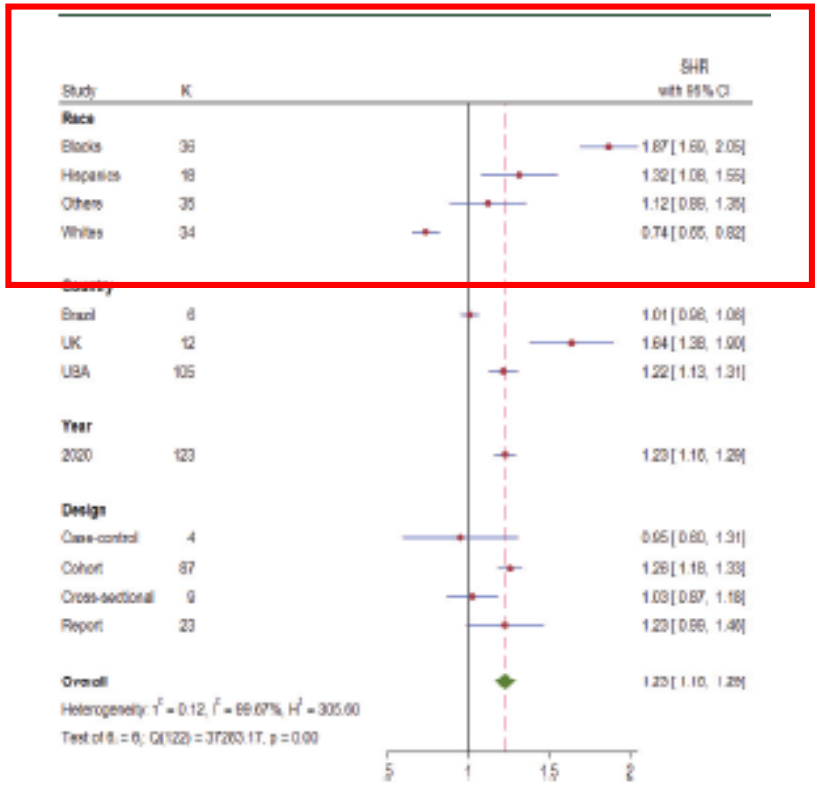
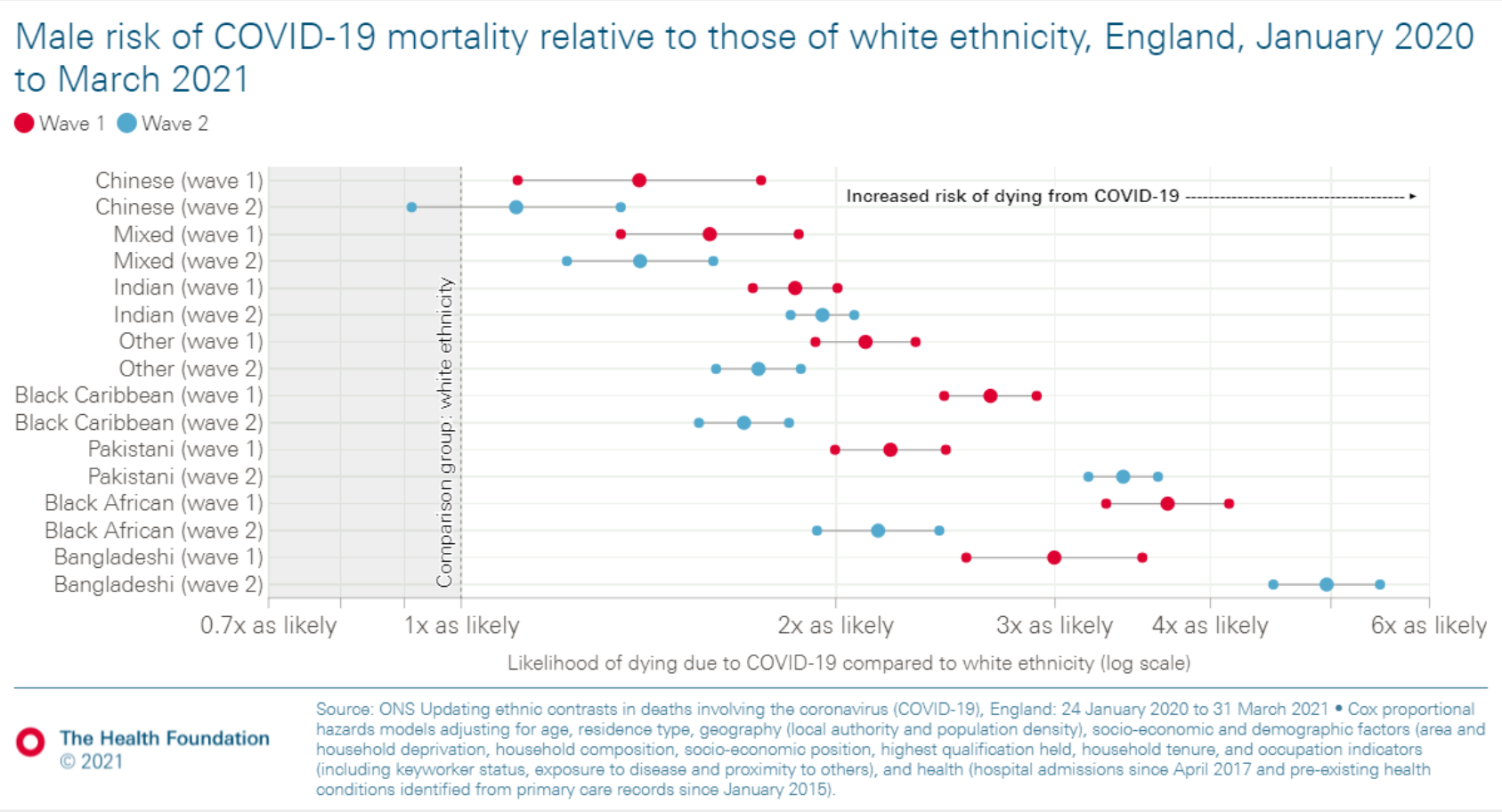


Figure 7. Standardised mortality ratio (SMR) Forest plots of COVID-19 by race, country, year, and study design.

Mude et al, 2021

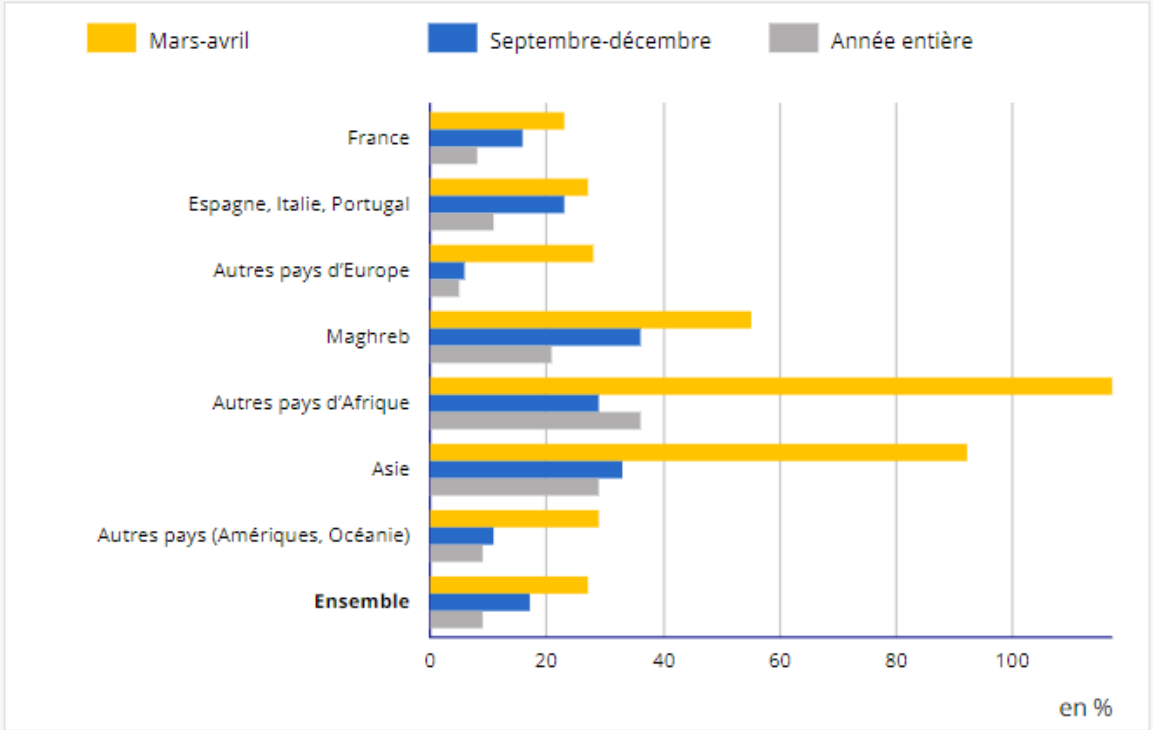
Ethno-racial minority status and COVID-19 mortality (UK)



- Males from ethnic minority communities had an increased risk of COVID-19 mortality in wave one and two.
- The risk was higher in the second wave for those from Pakistani and Bangladeshi backgrounds but lower for other ethnic minority communities.
- Rates are adjusted for demography, socio-economic factors and health conditions.

Immigrant status and COVID-19 mortality in France

Figure 1a - Évolution du nombre de décès enregistrés en France entre 2019 et 2020, selon le pays de naissance des personnes décédées et la période



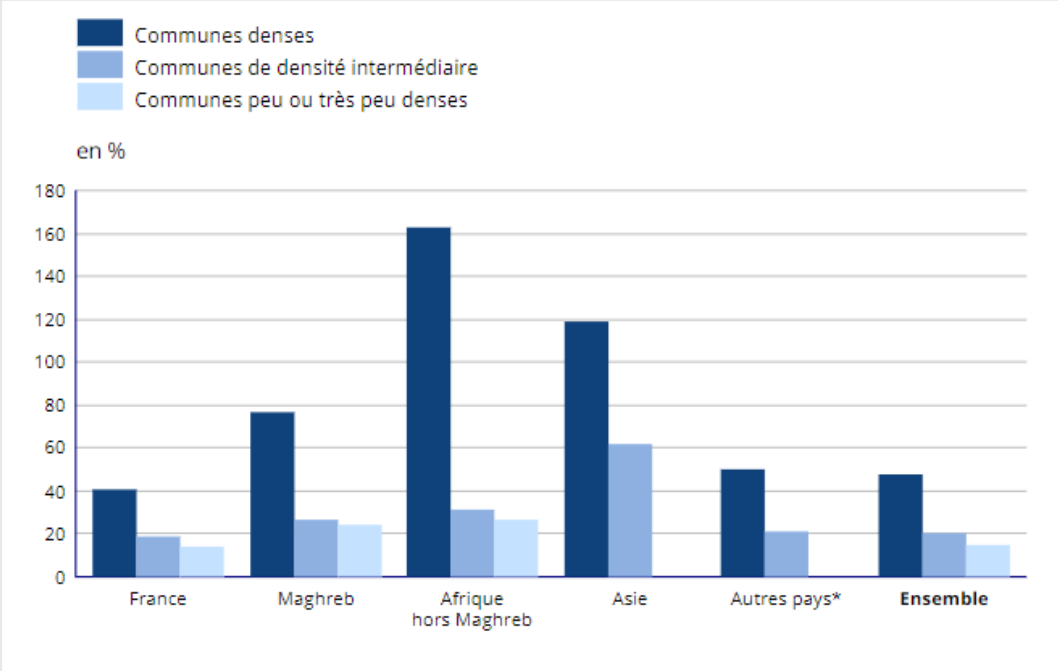
Note : données provisoires.

Lecture : toutes causes confondues, le nombre de décès enregistrés en France entre le 1er mars et le 30 avril 2020 a augmenté de 27 % par rapport à la même période en 2019. Dans le même temps, le nombre de décès en France de personnes nées en Afrique hors Maghreb a plus que doublé (+ 117 %).

Champ : décès enregistrés en France.

Source : Insee, statistiques de l'état civil, fichier du 20 février 2021.

Figure 3a - Évolution du nombre de décès entre mars-avril 2019 et mars-avril 2020, par pays de naissance selon la densité de la commune de résidence des personnes décédées



* Europe hors France, Amériques, Océanie.

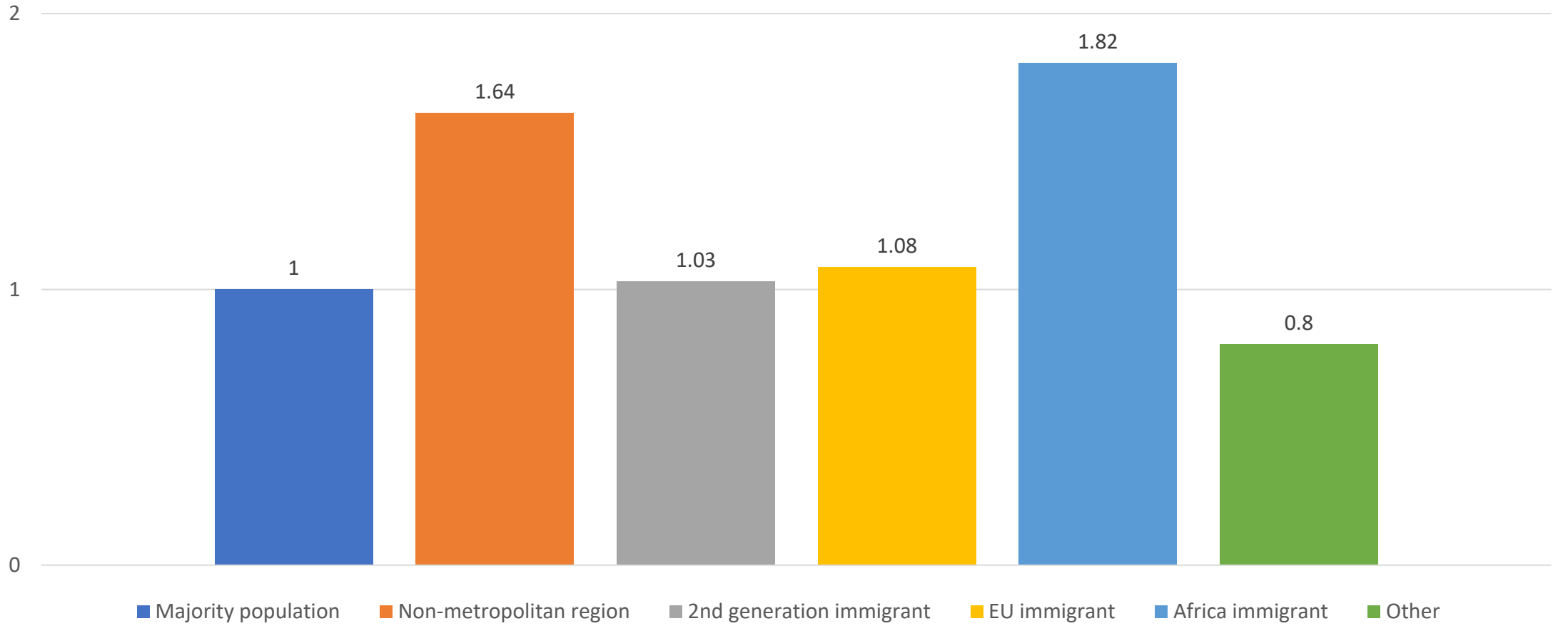
Note : données provisoires. Les nombres de décès sont faibles dans les communes peu ou très peu denses pour certains pays de naissance ; ces évolutions n'apparaissent pas ici.

Lecture : toutes causes confondues, le nombre de décès enregistrés en France pour des personnes nées en France et résidant dans des communes densément peuplées a augmenté de 41 % entre mars-avril 2019 et mars-avril 2020.

Champ : décès enregistrés en France.

Source : Insee, statistiques de l'état civil, fichier du 20 février 2021.

Immigrant status and employment in an essential occupation in France (adjusted ORs)



Gosselin et al, 2021

Immigrant status and health behaviors in France

Table 2. Risk ratios and male-to-female ratios for regular alcohol use, current smoking, obesity and less-than-good self-reported health (Adjusted on age, age^2 and relative educational level (Ridit), Baromètre Santé 2017 survey, ages 18–70 years).

Country/Region of Birth	Regular Alcohol Use	Current Smoking	Obesity	Less-Than-Good Self-Reported Health
		MEN		
France (native-born)	1	1	1	1
Overseas *départements*	0.64 (0.38–1.08)	1.03 (0.76–1.39)	1.14 (0.66–1.96)	1.15 (0.78–1.69)
Southern Europe	1.14 (0.89–1.46)	0.98 (0.76–1.27)	0.75 (0.47–1.18)	1.03 (0.77–1.38)
sub-Saharan Africa	**0.42** (0.29–0.61)	**0.64** (0.49–0.84)	0.76 (0.49–1.16)	1.15 (0.89–1.48)
Maghreb	**0.30** (0.16–0.54)	**1.21** (1.01–1.46)	**0.61** (**0.39–0.95**)	1.04 (0.79–1.36)
		WOMEN		
France (native-born)	1	1	1	1
Overseas *départements*	**0.38** (0.17–0.85)	0.68 (0.46–1.01)	**1.79** (1.25–2.56)	1.24 (0.94–1.64)
Southern Europe	1.00 (0.60–1.65)	**0.68** (0.47–0.97)	1.18 (0.80–1.75)	1.00 (0.78–1.28)
sub-Saharan Africa	0.88 (0.53–1.47)	**0.23** (0.14–0.38)	**1.67** (1.25–2.23)	**1.42** (1.15–1.75)
Maghreb	**0.18** (0.06–0.57)	**0.42** (0.29–0.61)	1.16 (0.82–1.64)	**1.55** (1.30–1.84)
		MALE-TO-FEMALE RATIO		
France (native-born)	**3.18** (2.93–3.45)	**1.13** (1.07–1.20)	1.07 (0.98–1.16)	**0.86** (0.81–0.91)
Overseas *départements*	**5.78** (2.31–14.42)	**1.68** (1.04–2.71)	0.67 (0.35–1.25)	0.78 (0.49–1.22)
Southern Europe	**4.05** (2.32–7.09)	**1.60** (1.06–2.42)	0.63 [a] (0.35–1.14)	0.89 (0.62–1.29)
sub-Saharan Africa	1.64 (0.89–3.03)	**2.87** [b] (1.61–5.09)	**0.41** [b] (0.25–0.67)	**0.65** (0.47–0.90)
Maghreb	**6.20** (1.66–22.88)	**3.10** [b] (2.06–4.65)	**0.51** [a] (0.29–0.89)	**0.56** [b] (0.41–0.76)

Significance test of comparison of group-specific male-to-female risk ratio with reference population risk ratio: [a]: $p < 0.05$; [b]: $p < 0.01$; estimates in bold are significantly different from unity

Khlat et al, 2020

Social and ethnic disparities with regard to COVID-19 vaccine

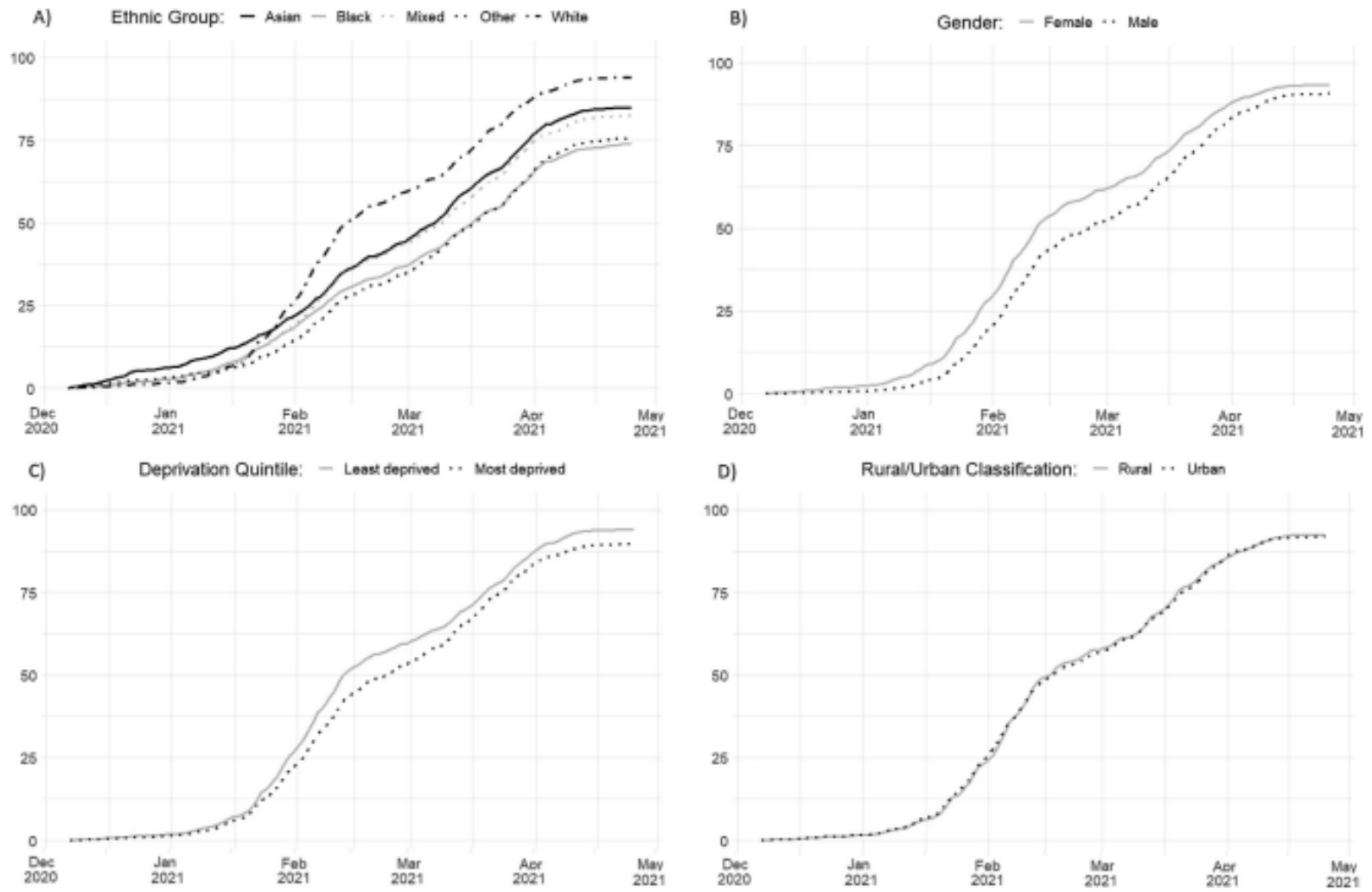
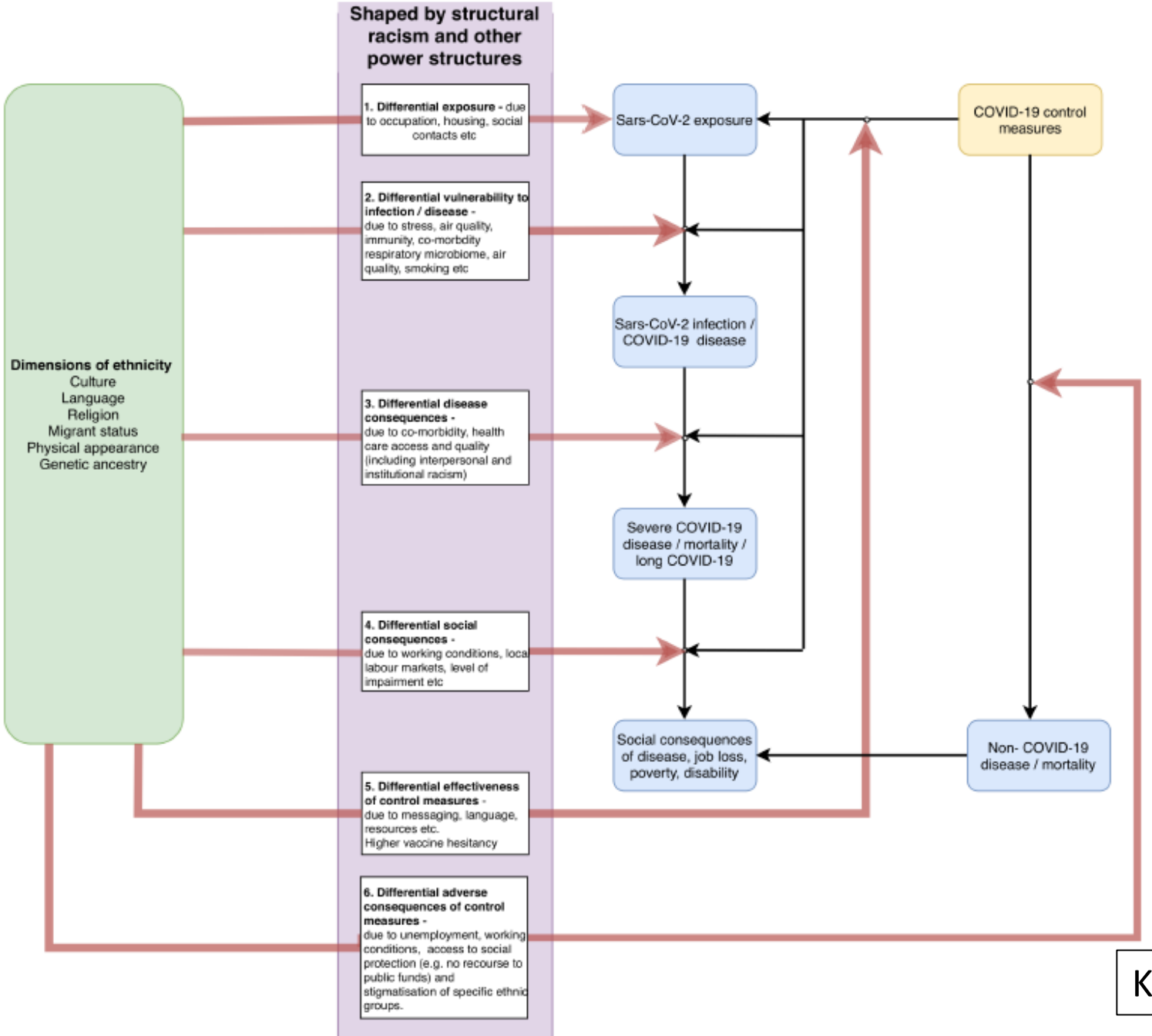
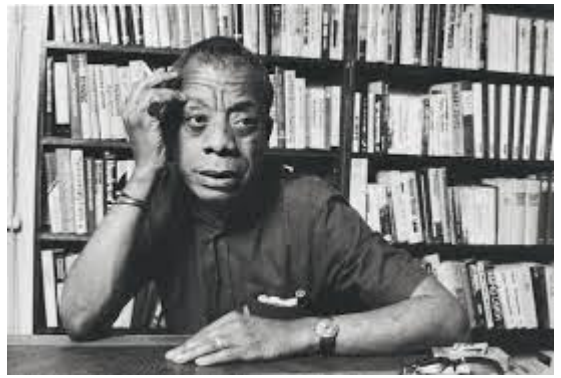


Fig. 1. Cumulative uptake of one dose of COVID-19 vaccine (any type) by ethnic group, sex, urban/rural residence classification and social quintile of deprivation Wales 2020–21 [a,b]. [a] Data sourced from the all Wales Immunisation System (WIS) in SAIL within the COVID Vaccination Data (CVVD) as at 25th April 2021. [b] To define the most and least deprived areas of Wales small area geography Lower-layer Super Output Area (LSOA) of residence were ranked by Welsh Index of Multiple Deprivation (WIMD) score and the populations divided in to quintiles.

Perry et al, 2021



Katikireddi et al, 2021



“Not everything that is faced can be changed, but nothing can be changed until it is faced.” – James Baldwin

Ethno-racial minority status and COVID-19 prognosis (UK)

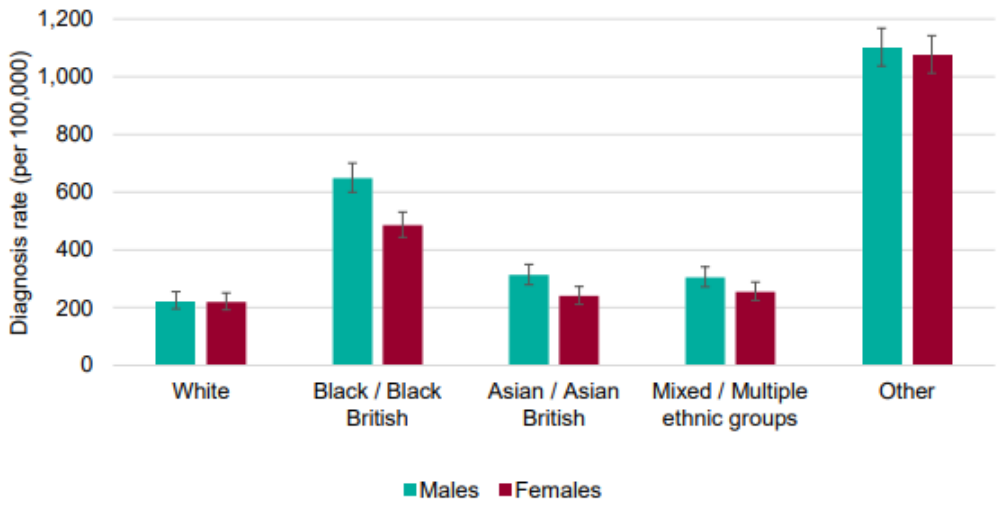


Figure 4.2. Age standardised diagnosis rates by ethnicity and sex, as of 13 May 2020, England. Source: Public Health England Second Generation Surveillance System.

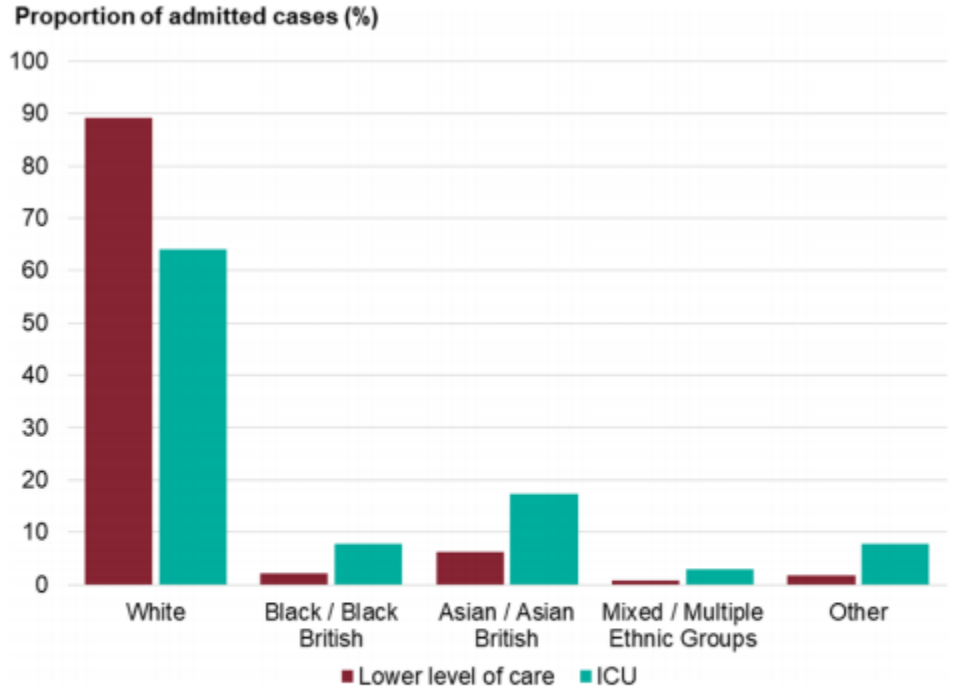


Figure 4.3. Laboratory confirmed admissions for COVID-19 to acute trusts, by level of care and ethnicity, England, as of 19 May 2020. Source: Public Health England COVID-19 Hospitalisations in England surveillance system (CHESS).

Public Health England, 2020