Inequality

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Race/ethnic inequalities in health: moving beyond confusion to focus on fundamental causes

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Race/ethnic inequalities in health: moving beyond confusion to focus on fundamental causes

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Introduction

This commentary[2] will focus on health inequalities in relation to race/ethnicity and, in doing so, it will connect with both the health inequalities chapter (Case and Kraftman, 2022) and the race and ethnicity chapter (Mirza and Warwick, 2022). The central argument of this commentary is that to make sense of the (complex and often confusing) patterning of race/ethnic inequalities in health in the UK and to move towards developing policy to address these inequalities, we must adopt a theoretically informed approach that centres the fundamental causes of race/ethnic inequalities – processes that flow from (structural, interpersonal and institutional) racism. To make this argument, first I critically review the data on race/ethnic inequalities in health and interpretations of these data. Second, I discuss the central role of social and economic inequalities in driving these inequalities. Third, I provide a more detailed discussion of how racism operates to shape social and economic inequalities and thereby to shape health outcomes. Fourth, I discuss the implications of this analysis for policy, particularly how this points to the need to address institutional racism and how this might be done. Finally, I briefly revisit the question of fundamental causes and the implications of this for considerations of other dimensions of inequality, such as those related to class and gender.

The patterning of race/ethnic inequalities in health

Although there has been some interest in race/ethnic differences in health for several decades in the UK (Marmot et al., 1984; Rudat, 1994; Harding and Maxwell, 1997; Erens, Primatesta and Prior, 2001; Nazroo, 2001a; Sproston and Mindell, 2006; Wild et al., 2007; Wallace and Kulu, 2015), it is noteworthy that prior to the COVID-19 pandemic, mainstream academic and policy work generally ignored, or downplayed, the significance of these differences. So, while the 1997 Independent Inquiry into Inequalities in Health (chaired by Sir Donald Acheson) included a focus on ethnicity, the numerous policy initiatives around inequalities in health since then have rarely discussed ethnicity, with the agenda-setting Department of Health's Strategic Review of Health Inequalities in England post-2010 (Marmot et al., 2010) being an obvious example of where ethnicity was entirely neglected (Salway et al., 2010). However, anecdotal evidence emerging during the early stages of the COVID-19 pandemic began to point to stark ethnic inequalities in outcomes, which were confirmed by early analyses of available data (Nazroo and Bécares, 2020; Platt and Warwick, 2020), and then by analyses conducted by the Office for National Statistics (ONS) that innovatively linked mortality statistics to Census records. These findings are summarised in Figure 1, which reports age-adjusted risk of death (hazard ratio) for men and women in a range of ethnic minority groups (ONS, 2020a) and for Jewish men and women (ONS, 2020b), compared with White British and White Christian men and women, respectively.

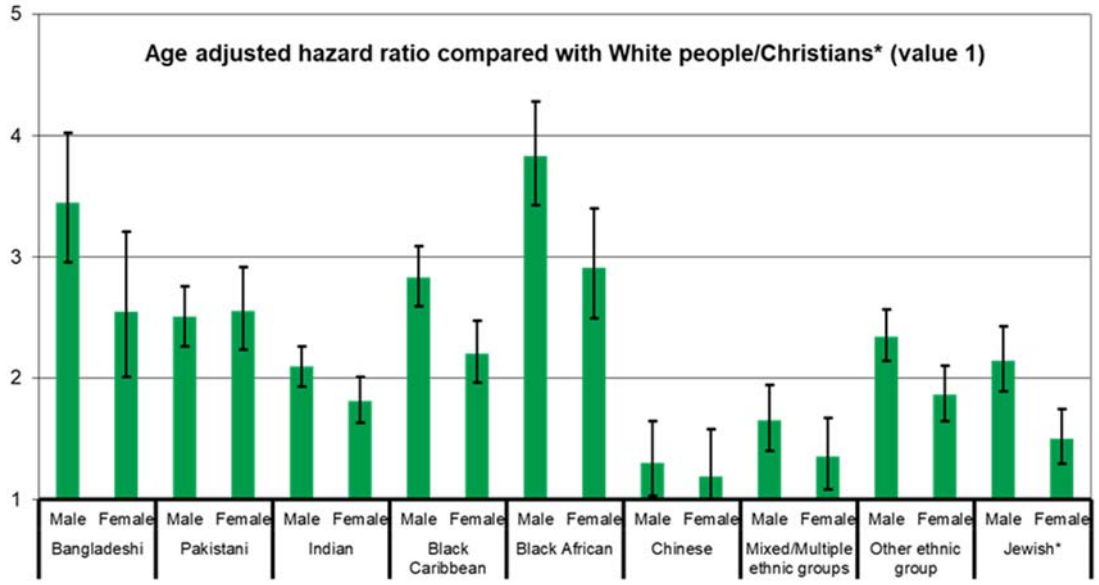
Figure 1 shows very large inequalities for all groups, except Chinese women, inequalities that have grasped the imagination of the public, public health officials, policy leads and government – but inequalities that have not led to any meaningful policy action. One reason for the lack of policy development is a lack of clarity over what might be driving these inequalities. Of course, a number of likely proximal causes have been identified: the greater likelihood of ethnic minority people to

[1] The underlying research for this paper was conducted as part of the Centre on Dynamics of Ethnicity and funded by the Economic and Social Research Council (ES/W000849/1).

[2] Elements of this commentary have been published elsewhere (Bradby and Nazroo, 2010; Chouhan and Nazroo, 2020; Nazroo, Bhui and Rhodes, 2020; Nazroo, 2021).

work in sectors that increase risk of exposure to COVID-19 infection (transport and delivery, security, cleaning, health care assistants, social care, as well as nursing and medicine); increased vulnerability because of the social and economic inequalities that are faced by ethnic minority people (finances, employment, neighbourhoods, housing, education, precarity); the amplification of risk as a result of underlying co-morbidity (diabetes, hypertension, cardiovascular disease), multi-morbidity and vitamin D deficiency; cultural vulnerability (multigenerational and overcrowded housing, gathering in places of worship, etc.); and biological and genetic vulnerability. But, while findings from the analyses conducted by ONS (2020a) point to the significance of socio-economic factors in this, the complexity of these findings does not point to immediate directions for policy development. Indeed, this complexity – and some confusion – is also present in the wider literature on race/ethnic inequalities in health.

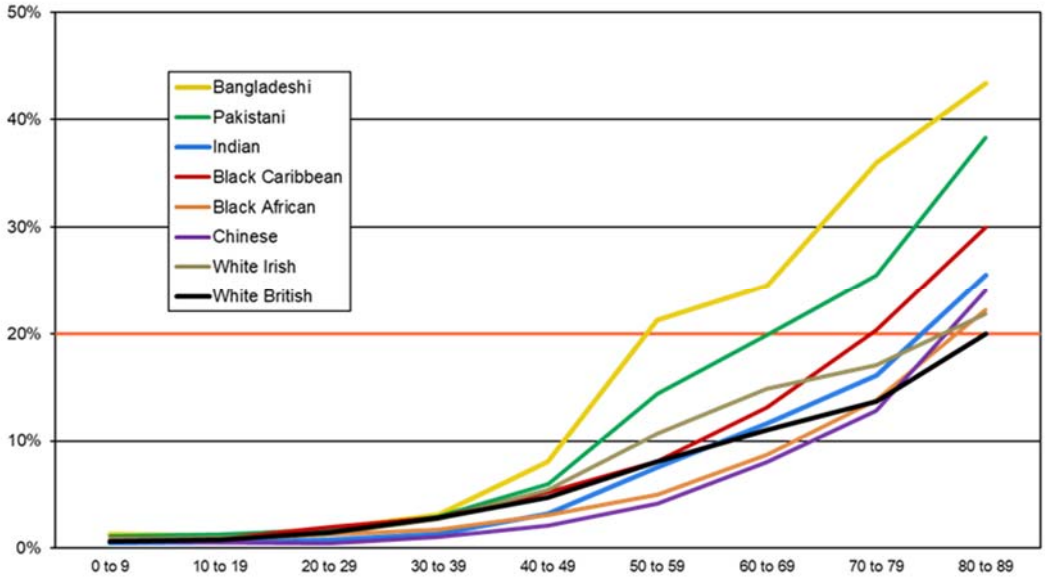
Figure 1. Ethnic and religious inequalities in risk of COVID-19 related mortality



Source: ONS (2020a, b).

Assessments of self-reported general health and limiting long-standing illness have repeatedly demonstrated a clear patterning of ethnic inequalities in health (Rudat, 1994; Nazroo, 2001a; Erens et al., 2001; Sproston and Mindell, 2006). For example, in one analysis, compared with the White English group, Bangladeshi people have a more than three times higher risk of saying that their health is fair or bad rather than good, with a figure of more than two times higher for Pakistani people and almost two times higher for Indian and Black Caribbean people (Nazroo, 2001a). Figure 2 shows the patterning of fair or poor self-reported health by ethnicity and age, using data from the 2011 UK Census (perhaps the most comprehensive assessment) (Stopforth et al., 2023). Inequalities across ethnic groups begin to emerge in middle adulthood and for three groups – Bangledeshi, Pakistani and Black Caribbean people – become large by early old age and continue to widen for older groups. So, for example, just over 20% of Bangladeshi people report having fair or poor health in their 50s, while this is the case for almost 20% of Pakistani people in their 60s, for 20% of Caribbean people in their 70s and almost 20% of White British people in their 80s. The health of Bangladeshi people in their 50s is equivalent to that for White British people in their 80s. Indeed, it has been estimated that Bangladeshi, Pakistani and Black Caribbean people have between six and nine fewer years of disability-free life expectancy than do White British people (Wohland, 2015). For the other groups included in the graph, inequalities are either small (the Indian and White Irish groups), or not present (Black African and Chinese groups).

Figure 2. Ethnic differences in fair or poor self-reported health by age – findings from the 2011 Census



Source: Stopforth et al. (2023).

The picture becomes much more complex, however, when specific disease outcomes are examined, with the extent of the difference in health varying across health conditions as well as across ethnic groups. In more detail, analyses of morbidity and mortality data have focused on, and identified, the following kinds of differences in health across ethnic groups (in comparison to White British groups):

- higher, but variable, rates of diabetes across all non-White groups (Erens et al., 2001; Sproston and Mindell, 2006; Goff, 2019);
- higher rates of heart disease among 'South Asian' people, but particularly among Bangladeshi and Pakistani people (Nazroo, 2001b; Chaturvedi, 2003; Patel et al. 2021);
- higher rates of hypertension and stroke among Caribbean and African people (Stewart et al., 1999; Erens et al., 2001; Chaturvedi, 2003; Sproston and Mindell, 2006);
- higher rates of admission to psychiatric hospitals with a diagnosis of psychotic illness for Black Caribbean and Black African people (McGovern and Cope, 1987; Harrison et al., 1988; King et al., 1994; Van Os et al., 1996; Halvorsrud et al., 2019);
- higher rates of suicide among young women born in South Asia or, more particularly, born in India (Raleigh and Balarajan, 1992; Raleigh, 1996);
- higher rates of sexually transmitted illnesses among Black Caribbean people (Jayakody et al., 2001; Low, Sterne and Barlow, 2001; Wayal et al., 2017);
- higher rates of congenital abnormality and childhood disability among Muslim children (Sheridan et al., 2013; Ajaz, Ali and Randhawa, 2015);
- low rates of cancer diagnosis and cancer-related mortality among all non-White ethnic minority groups (Delon et al., 2022; Martins et al., 2022).

The limitations of existing explanatory frameworks and associated data

Such findings and the analyses that underlie them do little more than provide a description of differences in health. However, their complexity and specificity make it tempting to read explanations from the ethnic categories used to characterise populations and the disease categories used to provide outcomes. Just as we might say that Pakistani men have high rates of unemployment, or Black Caribbean families are more likely to be headed by a single parent, we might say that Bangladeshi people have poor health. It is then straightforward to go from what is just a simple description of correlations in the data to seeking an explanation for poor health in the nature of what it is to be a member of a race/ethnic category (in this example, what it means to be Bangladeshi). There is a strong impulse to resort to explanation based on an understanding of a reified, or essentialised, category, stripped of contextual meaning and stereotyped. Just as we might seek explanations for higher rates of single parenthood in Black Caribbean cultures, we can seek explanations for high rates of a specific disease in the culture or genetic profile of the race/ethnic category associated with the higher rate. As illness and disease are commonly understood to result from biological processes and health behaviours, culture and genetics are favoured as the explanatory variable for differences across race/ethnic minority groups that are diverse across disease outcomes. In such a context, it is unsurprising that research on the relationship between ethnicity/race and health often focuses on the 'exotic' in terms of both outcomes and the search for explanation. For example, it is easy to speculate on what it is to be South Asian that might lead to a greater risk of heart disease (genetics, diet, and other health behaviours). Or what it might be about Caribbean families and cultures that lead to the high risk of psychotic illness or sexually transmitted illness among young people. Or how marriage patterns might lead to high rates of congenital disease and disability in Muslim children. Given the ease with which explanations can be based on such stereotypes of racial difference and cultural practices, it is not surprising that this is the direction that public health policy has moved in – ethnic differences in health are easily understood to be a consequence of supposed biological and cultural differences, which are reified, generalised and personalised across all of those who are seen to be members of a particular ethnic minority group. But such explanations, which are based on racialised identities, have rarely been tested.

For example, among explanations for ethnic differences in risk of COVID-19 related mortality were the increased likelihood to live in multigenerational households, the increased risk of vitamin D deficiency, and genetic vulnerability (alongside the increased risk of exposure to the virus, socio-economic inequalities, and higher rates of pre-existing chronic morbidity), even though the evidence for each of these was either speculative or partial. It is worth examining one of these explanations in more detail, genetic vulnerability, simply because it captured the imagination of scientists, practitioners, the media and the public. A paper published in *Nature Genetics* (Downes et al., 2021) identified a candidate effector gene, LZTFL1, for increased risk of COVID-19 mortality. Embedded within the paper was an important (but surprisingly unreferenced) claim that there is higher prevalence of the harmful variant of this gene in South Asian populations, raising the possibility that it might be an explanation for the high rates of COVID-19 mortality found among South Asian people in the UK. The authors state: '[a]dditionally, the risk variants at this locus are carried by >60% of individuals with South Asian ancestry (SAS), compared to 15% of European ancestry (EUR) groups, partially explaining the ongoing higher death rate in this population in the UK'.[3] Despite their claim, Downes et al. (2021) had no direct evidence that this gene increased risk of COVID-19 mortality disproportionately for South Asian people, not least because the paper reported on an in-vitro study of mechanisms, rather than an in-vivo study of outcomes. So, while the gene might be associated with a plausible mechanism, the gene itself (rather than the genetic locus) has not been directly associated with increased risk of COVID-19 mortality. Indeed, another study that directly examined the association between an SNP (rs10490770) representing the LZTFLI genetic loci and COVID-19 infection rates and case-fatality rates in the Indian population finds that for that population it was not associated with either outcome (Singh et al., 2021). Perhaps the important conclusion from this example is that

[3] In fact, in support of the claim that the risk variant is more common among South Asian people, there is one paper (Zeberg and Pääbo, 2020) that suggests the harmful variant of the gene is more common in South Asian origin populations, and is particularly common among Bangladeshi people, while it does not seem to be present among African origin populations. But the underlying studies that it uses do not indicate how representative the samples that they use are, so do not provide an accurate estimate of the gene's prevalence.

even papers reporting on the highest-quality science often resort to lay conceptualisations of race/ethnicity.

So, approaches that use descriptive categories to provide explanation step away from attempts to place the associations between race/ethnicity and health within a theoretical framework, instead relying on everyday, or common-sense, notions of both race/ethnicity and disease – taking what I have elsewhere called an 'untheorised', rather than atheoretical, approach (Nazroo, 1998). Rather, if we are to develop adequate explanatory models for ethnic differences in health, we have to consider how the categories we use reflect heterogeneous social identities and experiences, how they relate to wider social and economic inequalities, and how these in turn are shaped by more fundamental processes driven by racism. My argument here is that we need to shift our focus on to the drivers of race/ethnic inequalities, rather than try to make sense of diverse outcomes identified through limited and descriptive data.

The central role played by observed social and economic inequalities

To develop an explanatory framework, an important starting point is to consider the social character of ethnicity, and the socially and economically determined nature of health. There is, of course, strong evidence that socio-economic inequalities drive health inequalities in the general population. Historically, this work did not inform investigations of ethnic inequalities in health in the UK, perhaps due to the impact of the study of immigrant mortality rates by Marmot et al. (1984). Published shortly after the Black Report (Townsend and Davidson, 1982) had put socio-economic inequalities in health on the research agenda, this study used the combination of census and death certificate data to explore the relationship between country of birth and mortality rates. A central finding was that there was no relationship between occupational class and mortality for immigrant groups, even though there was a clear relationship for those born in the UK. It was concluded that differences in socio-economic position could not explain the higher mortality rates found in some migrant groups in the UK (Marmot et al., 1984).

From 1984, it took more than a decade for socio-economic position to reappear in published UK data exploring the relationship between ethnicity and health. Conclusions drawn from analysis of immigrant mortality data still did not appear to support a socio-economic explanation for the different rates of mortality across immigrant and non-immigrant groups (Harding and Maxwell, 1997). Therefore, many continued to claim that socio-economic inequalities make a minimal, or non-existent, contribution to ethnic inequalities in health (for example, Wild and McKeigue, 1997). Such denials of the relevance of socio-economic inequalities to ethnic inequalities in health can be interrogated first by considering the limitations of quantitative empirical models. The sociological significance of ethnicity and race cannot be straightforwardly captured in ethnic classifications. The role played by history, contemporary political and social situations, local context, generation and period since migration, and so forth, is difficult to encapsulate in the proxies used, and is easily ignored when using crudely quantified categories that result in ethnicity being operationalised in fixed and reified terms. Furthermore, there is a real lack of good, or often any, data on economic position in health studies, let alone data that can deal with other elements of social disadvantage faced by ethnic minority groups, such as inequalities related to geography and experiences of racial discrimination and harassment (Nazroo, 1998, 2003).

Despite the limitations of the data and the dearth of research until the mid-1990s, there is now considerable evidence that the social and economic inequalities faced by ethnic minority people make a substantial contribution to ethnic inequalities in health. As Mirza and Warwick (2022) demonstrate, inequalities in economic position across ethnic groups are marked and complex, covering economic activity, employment levels, income, educational outcomes, housing, geographical location, area deprivation, racism and discrimination, citizenship and claims to citizenship. In addition, such inequalities accumulate across life courses and across connected generations (Gee, Walsemann and Brondolo, 2012; Bécares, Nazroo and Kelly, 2015; Stopforth et al., 2023). The complexity of these processes is not captured by single, or proxy, measures of economic position, such as measures of education or area deprivation. Instead they require a challenging, multi-faceted and theoretically informed examination. Indeed, the few studies that attempt to address the complexity of the economic inequalities faced by ethnic minority people demonstrate that much, if not all, of ethnic inequalities in health are the product of socio-economic inequalities (Nazroo, 1998, 2001a).

There is also a growing body of evidence that both physical and mental health are adversely affected by experiences of racial harassment, fear of experiencing racial harassment, experiences of discrimination, and the belief that there is general prejudice and discrimination against ethnic minority people (Krieger and Sidney, 1996; Karlsen and Nazroo, 2002a, 2002b, 2004; Williams, Neighbors and Jackson, 2003). These 'indicators' of racism and discrimination reflect general perceptions of society as racist (belief that minority groups are discriminated against, fear of racism), personal threat (fear of racism and experiences of harassment), and experiences of events that undermine status and identity (experiences of harassment and experiences of discrimination). And their effects on health have been found to accumulate across domains of exposure to racism and discrimination, and over time (Wallace, Nazroo and Bécares, 2016).

Related to this, there is also evidence that even though living in deprived areas is harmful for health, the aggregation of ethnic minority people in areas with those of similar ethnicity is beneficial, particularly for mental health, once the effects of area deprivation are controlled (Bécares, Nazroo and Stafford, 2009). This is likely to operate through a combination of feelings of increased security (lower exposure to racial harassment and discrimination) and increased social support. Indeed, there is some evidence demonstrating that ethnic minority people evaluate the areas where they live much more highly than would be implied by official indices of deprivation precisely because these are locations where a sense of inclusive community for people like them has developed (Bajekal et al., 2004; Bécares and Nazroo, 2013).

So, although a concern with the detailed aetiology of specific conditions occurring at higher rates for particular ethnic groups might lead to a focus on the putative proximal causes of biological outcomes (in effect, genetic and behavioural differences), research on distal social and economic causes shows clearly that these are key drivers of ethnic differences in health. But this is not just a simple reflection of class disadvantage, the complex and multidimensional nature of the economic and social inequalities faced by ethnic minority people reflects the processes of racialisation they face. This requires specific policy responses if such inequalities are to be addressed, but effective responses require a fundamental rethink of approaches to race, ethnicity and migration.

The fundamental role of racism

Behind the apparent complexity of the processes that lead to the social and economic inequalities ethnic minority people face is the way in which these inequalities are driven by entrenched structural and institutional racism, and interpersonal experiences of racism and racial discrimination (Nazroo, Bhui and Rhodes, 2020). An explanation of ethnic inequalities that does not acknowledge the underpinning role of racism is limited in its ability to generate a robust understanding of the processes that lead to such inequalities and, very importantly, is limited in developing strategies for addressing them.

Racism draws on an ideology where physical difference is linked to cultural and social difference. This allows race/ethnic groups to be identified, to be given meaning and value, and to be placed on a hierarchal scale – a process described as racialisation (Hughey and Jackson, 2017). This then allows for the subordination, marginalisation and exclusion of those considered to be inferior (Emirbayer and Desmond, 2015; Golash-Boza, 2016). Inequalities that are consequent to these processes, then, do not arise from the inherent properties of race/ethnic groupings, rather they are a result of the historically embedded and culturally and politically shaped meanings ascribed to race/ethnic identities.

According to Omi and Winant (1994), such ideas of – and categorisation by – race are central to the organisation and regulation of modern societies; they are not just historically significant. Indeed, Emirbayer and Desmond (2015) have argued that we need to consider how race/ethnic groups are configured within social spaces and how this reflects access to the economic, cultural, legal, political and symbolic resources that shape how identities are perceived, valued, mobilised and interacted with. They argue that it is additionally important to consider how shared emotions attached to symbolic resources shape the practices of individuals and the rules and

procedures of institutions. Take, for example, the shared emotions around risk, danger, fear and disgust that are attached to different ethnic minority identities and how they provide resources for, and shape the practices of, discrimination and racism. This, then, has direct impacts on economic, social and health outcomes. So, although race and ethnic identities might be social constructions, the meanings they contain do have real impacts on people's lives.

Consequently, to achieve an adequate understanding of race/ethnic inequalities, we need to understand the ways in which identities are racialised and the consequent substantial impacts this has on the lives of race/ethnic minority people. To do this, it is useful to consider three closely related ways in which racism operates in our lives. First, how structural racism leads to disadvantage in accessing key economic, physical, political and social resources. Second, how interpersonal racism (ranging from everyday slights, through to discrimination in a range of settings, to verbal and physical aggression) emphasises the devalued and insecure social status of both those who are directly targeted and those who have similarly racialised identities. Third, how these processes are embedded within institutions and shape their rules, processes and practices and, consequently, encounters within them.

Each of these dimensions of racism, and their consequences, are detailed further below. However, it should be noted that this approach to the classification of racism is designed to provide the analytical tools necessary to understand how racism operates and to inform decision-making, while at the same time acknowledging that these forms of racism are closely related, mutually supportive and operate together. It draws on and develops existing approaches to understanding racism (see, for example, Phillips, 2010; Hughey and Jackson, 2017; Hicken et al., 2018) in order to provide a fundamental explanation for race/ethnic inequalities across a range of economic, social and health outcomes.

Structural racism

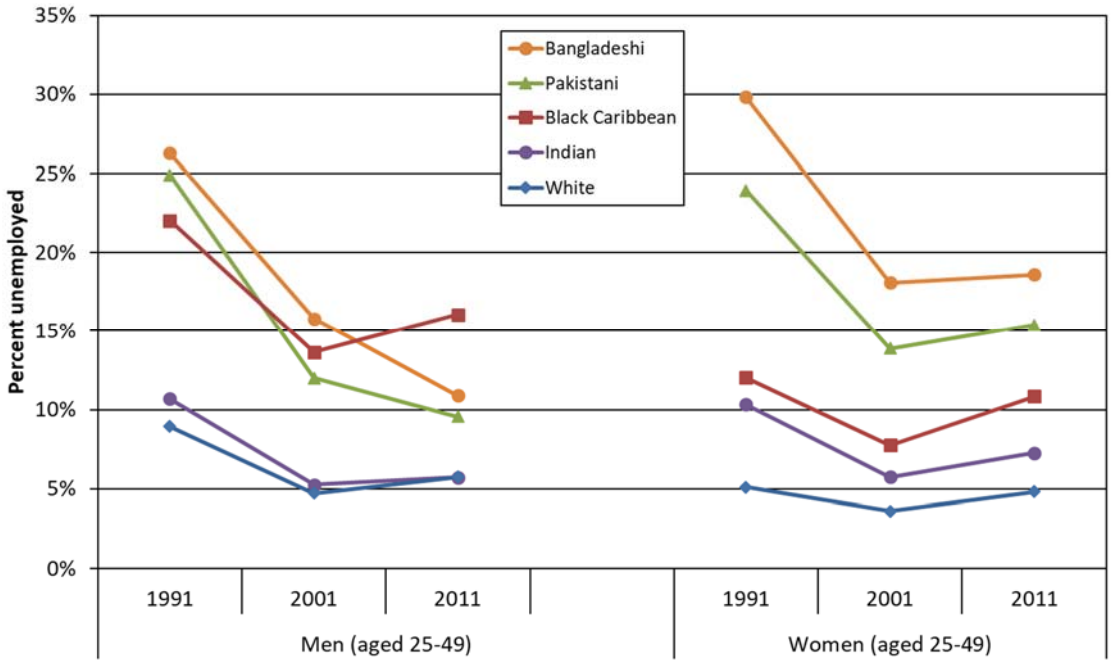
Any consideration of how racism operates must include consideration of overarching, structural, processes. Operating alongside and in interaction with other areas of inequality, such as class and gender (Phillips, 2010; Song, 2014; Byrne, 2015; Golash-Boza, 2016), which will be touched on briefly in the concluding section of this commentary, race/ethnicity remains a key determinant of social location, status and power. Here, the legacies of historical regimes of colonialism, race-based slavery, indentured labour, and apartheid interact with current processes of globalisation, migration and governance to shape inequalities in accessing key economic, physical, political and social resources (Phillips, 2010; Bailey et al., 2017).

Importantly, structural racism not only consists of material outcomes, such as income, job security and housing, but it also has cultural and ideological dimensions (Essed, 1991). The circulation of ideas and representations that produce race and ethnic groups as different, but also as threatening and inferior, serve to inform and rationalise an uneven distribution of resources. So material inequality carries with it associated denigration of the culture/race/ethnic group experiencing it. Although some commentators have argued for a distinction between the structural and cultural domains of racism (see, for example, Hicken et al., 2018), it is crucial to identify the significance of the ideological dimensions of social structures. That is, how 'racial life' is 'suffused with shared passions, imageries and fantasies' that inform modes of 'attachment, defence, solidarity or struggle' within society (Emirbayer and Desmond 2015). Culture, race and associated emotion provide a context for social, economic and political action at the structural level.

What are the material consequences of this? Within the UK, there are deep and persisting ethnic inequalities across almost all economic dimensions – income, employment, residential location, housing and education; see Mirza and Warwick (2022), and also Modood et al. (1997), Jivraj and Simpson (2015) and Byrne et al. (2020). For example, the persistence of race/ethnic inequalities in risk of unemployment is revealed by an examination of UK census data over the periods 1991, 2001 and 2011 (data from the 2021 Census are not available at the time of writing), which provide the most robust and comprehensive assessment of unemployment rates over this 20-year period. As illustrated by Figure 3, census data show that Black Caribbean men and women have had persistently high levels of unemployment, more than twice as high as the White rate (Kapadia, Nazroo and Clark, 2015). And while Pakistani and Bangladeshi men and women have seen large falls in unemployment over the period 1991–2011, they continue to have much higher unemployment rates than White men and women, and the fall is mainly a result of a large rise in

part-time work (Kapadia et al., 2015). For example, for Bangladeshi men, the part-time employment rate has risen from just over 3% in 1991 to 35% in 2011, a figure that is coupled with a fall, rather than a rise, in full-time employment rates. This part-time employment rate is seven times higher than that for White men (Kapadia et al., 2015). Finally, Figure 3 also shows lower (though persistent) levels of inequality in employment rates for Indian women, and no inequalities for Indian men.

Figure 3. Persisting ethnic inequalities in employment in the UK



Source: Kapadia et al. (2015).

The persistence across generations and over time of such employment inequalities within the UK might be unexpected as, for a number of reasons, it should have diminished over time. For example, more recent periods have ethnic minority populations with a large proportion of second- and third-generation people. They would be both fluent in English and would have passed through the UK education system. Indeed, over the same period we have seen improvements in educational attainment that were larger for ethnic minority groups than for the White British group, leading to a narrowing and reversal of ethnic inequalities (Lymperopoulou and Parameshwaran, 2015). Ethnic minority groups should therefore be less disadvantaged in the employment market than they were. As well as this, the introduction of equality legislation, which has been in place in the UK for more than 50 years and has become stronger over time, might be expected to have diminished the negative outcomes of discrimination. The lack of change in the depth and persistence of employment inequalities in relation to race/ethnicity is, therefore, surprising and emphasises the difficulties in changing relevant processes. Improvements in some outcomes (in this case, educational attainment) do not necessarily translate into improvements elsewhere (in this case, employment, but also housing and the probability of living in a deprived area), despite the change across cohorts in human capital and the implementation of a range of legislative and equal opportunities processes.

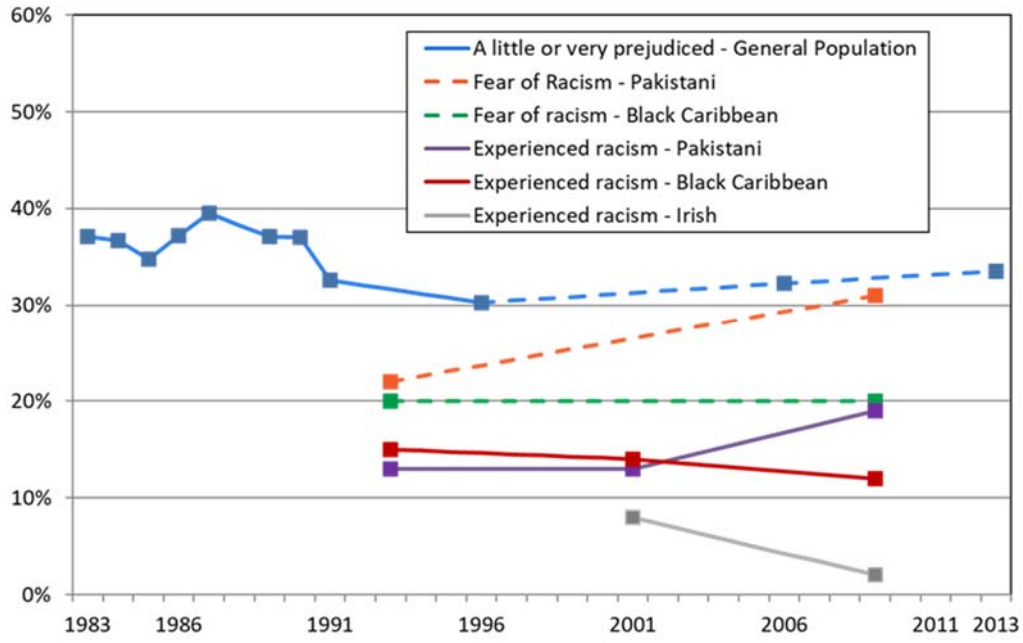
Interpersonal racism

If structural racism accounts for the more abstract workings of culture, economy and society, a focus on interpersonal racism examines the more routine, everyday expressions of racism. Indeed, it is through interpersonal actions that the structural, cultural and denigrated aspects of racialised identities come into being (Emirbayer and Desmond, 2015). As Knowles (2003) argues: 'racial orders are in fact composed of myriad and ordinary everyday social processes and mechanisms with which people interface'. In addition, forms of interpersonal racism operate within collectives, such as families, neighbourhoods and institutions, providing them with a structural character (Phillips, 2010). In this sense, structural racism operates through the interpersonal, not outside of it. Structural racism shapes the context of everyday racist

interactions, but it is itself also an outcome of cumulative patterns of everyday racism. Consequently, structural and interpersonal racism are interdependent.

A range of studies have acutely demonstrated that interpersonal experiences of racism and discrimination are central to the everyday lives of race/ethnic minority people (e.g. Virdee, 1995, 1997; Stevens, Hussein and Manthorpe, 2012; Funnell, 2015). However, given the diverse and often very subtle forms that interpersonal racism takes, it is extremely difficult to quantify the level of risk faced by race/ethnic minority people (Karlsen and Nazroo, 2006). In addition, assessments that quantify risk typically focus on individual experiences at a single point in time and so fail to capture how experiences of racism and discrimination operate across, and impact on, the life courses of connected individuals. Nevertheless, such assessments do show high levels of risk within the UK and levels that have not changed meaningfully over the past 20 years. This lack of meaningful change in exposure to racism over time is illustrated by Figure 4, which uses data from a series of cross-sectional surveys, selected because they have similar approaches to measurement and so can be meaningfully compared. Figure 4 shows that 15% of Black Caribbean people reported experiencing racist abuse, assault or vandalism in 1993–94, compared with 14% in 2000, and 12% in 2008–09 (Virdee, 1997; Karlsen and Nazroo, 2014). In addition, 20% of Black Caribbean people were very, or fairly, worried about being a victim of a racist attack in both 1993–94 and 2008–09 (Virdee, 1997; Karlsen and Nazroo, 2014). Over the same period, Pakistani people have experienced an increased risk of experiencing racism, and increased levels of being worried about being a victim of a racist attack, while over a shorter period Irish people have experienced a reduction in their risk of experiencing racism (Virdee, 1997; Karlsen and Nazroo, 2014). The differences in the changes in experience for Pakistani and Irish people are indicative of changing processes of racialisation, with a rise in Islamophobia (Elahi and Khan, 2017), and a possible decline in anti-Irish sentiment. Similarly, there are many accounts of increased experiences of racism among East Asian people since the onset of the COVID-19 pandemic (as reported by Owen, 2020). Importantly, underlying these experiences is a worrying continuation of prejudice in the majority population within the UK. As Figure 4 shows, this has remained at a consistently high level over the past 30 years with between 30% and 40% of people saying that they are a little or very prejudiced against ethnic minority people (Kelley, Khan and Sharrock, 2017).

Figure 4. Trends in levels of prejudice and racism over time



Source: Virdee (1997), Karlsen and Nazroo (2014) and Kelley et al. (2017).

It is important to note that interpersonal incidents of racism are an attack on communities rather than just on individuals (Virdee, 1997). Racism need not have been experienced personally for it to produce a sense of threat (Karlsen and Nazroo, 2004). As Oakley (1996) points out: 'the

distinguishing feature of racial violence and harassment is not simply that it involves members of different racial groups or ethnic groups; it is that the action is racially motivated … Racially motivated behavior, therefore, is not an attack aimed at a person purely as an individual, but an attack on a member of a category or group.' Indeed, acts of racism are reflections and reinforcements of historical legacies of racial orders and domination, so their psychological impacts are to reinforce the disempowerment and lack of security of those whose identities have been negatively racialised (Funnell, 2015).

Institutional racism

Understanding race/ethnic inequalities also requires attention to be paid to the role of institutional racism. First coined by Carmichael and Hamilton (1967) the term 'institutional racism' was used to highlight how racialised inequalities were not naturally occurring, but a function of actions operating within institutions. Institutions, located as they are at the level between the structural and the interpersonal, providing access to a range of services that shape our lives and employing a large proportion of the workforce, have a particularly important role. Institutional settings provide a context within which the concentration and amplification of structural forms of disadvantage and interpersonal racism can occur (Phillips, 2010; Emirbayer and Desmond, 2015; Bailey et al., 2017).

Conceptually, institutional racism has been beset by the challenge of attributing racism to institutions, rather than to individuals (Bradby, 2010). However, by locating institutional racism within a wider framework involving both structural and interpersonal processes, we can see how institutional practices are produced both via 'agential overt and unwitting practices of individuals' and 'interacting causal structural conditions' (Phillips, 2010). Indeed, the idea that institutional racism is really a problem of conscious, or unconscious, interpersonal racism ignores the ways in which structural and interpersonal racism penetrate institutions (Emirbayer and Desmond, 2015). So, structural conditions of socio-economic disadvantage and interpersonal experiences of racism shape encounters with institutions that have policies and practices that in turn lead to and amplify unequal outcomes – in education, employment, housing, criminal justice, politics, etc., as well as health and social care. So, we need to consider how systems, procedures and practices within institutions relate to and reproduce both structural and interpersonal racism, and how this is reflected in routine activities, local knowledge, and the setting of relationships and institutional cultures. All of this results in discriminatory policies and practices that have an impact on both staff and the users of services.

The outcomes of institutional racism can be seen in the greater likelihood of ethnic minority people to have more negative pathways through care, poorer access to effective services and interventions, and poorer outcomes. This is present in any institution we may care to examine, including education (Alexander and Shankley, 2020), health and social care (Chouhan and Nazroo, 2020; Kapadia et al., 2022), housing (Shankley and Finney, 2020), arts and culture (Malik and Shankley, 2020) and politics (Sobolewska and Shankley, 2020), but it is perhaps most striking in those institutions that have a regulatory, or disciplinary, function, such as criminal justice (Shankley and Williams, 2020) and mental health (Nazroo et al., 2020). Indeed, institutional racism will take different forms, will operate differently, across institutions according to their focus – for example, the functions of institutions dealing with cancer screening, compared with those implementing coercive treatments for severe mental illness.

How might change be achieved?

There has been little development of policy to specifically address race/ethnic inequalities in health, with only occasional, limited and local interventions. Similarly, there has been no real evaluation of the impact of specific or general policy on ethnic inequalities in health. However, there is not a policy 'vacuum'. Rather there is a continuous series of policies around culture, citizenship, community, segregation and migration, which are populist and disregard the evidence base. This policy context further, and fundamentally, undermines the social status of race/ethnic minority people and communities, reinforces processes of racialisation, and is likely to have reinforced and negatively affected the social and economic inequalities that are proximal drivers of race/ethnic inequalities in health. In addition, race/ethnic minority people are disproportionately affected by policies that amplify inequality in general, such as the public sector retrenchment (austerity measures) that has been acute over the last ten years and the 'lockdown'

policies that have been implemented during the COVID-19 pandemic (Benzeval et al., 2020; Hu, 2020; Allen et al., 2021; Platt, 2021). In this context, policy development to address race/ethnic inequalities might focus on these proximal and intermediate factors; for example, addressing inequalities in the provision of health services, or targeting discrimination in employment processes. However, this avoids addressing the fundamental driver of these inequalities, racism, which is an even more difficult target for action. So how might we rethink our approach to addressing racism?

There is, perhaps, a growing social and political climate that is conducive to addressing racism. In the UK, as elsewhere, a series of events have centred the issue of ethnic inequalities and racism in the minds of the public, media, non-governmental organisations, and those involved in shaping and responding to policy. These events include the stark race/ethnic inequalities in the impact of the COVID-19 pandemic, alongside the police killing of George Floyd and the subsequent resurgence of the Black Lives Matter movement. They have raised concerns across the full range of social, public and private institutions in the UK. Questions have been asked about everything from deaths in custody, unequal health outcomes and failures of education systems, to the ways in which histories of colonisation, slavery and empire are embedded in our cultures and celebrated by our monuments and in the commemorations of our history. However, while these events have led to public statements (though little concrete action) from a large proportion of private, public and governmental organisations in support of race equality, it is important to note that those in central government have worked hard to shift the focus away from racism and, indeed, inequality itself.

This is most clearly reflected in the government's establishment of a Commission on Race and Ethnic Disparities in 2020. The Commission contained several members who previously had publicly denied the importance of racism, and they consequently cherry-picked evidence to support an approach of downplaying the significance of racism in the lives of ethnic minority people and reframed the issue as one of social mobility. In relation to health, the Commission suggested that we need to move away from a focus on ethnicity and racism, arguing that, for life expectancy, ethnic minority groups have better outcomes, and instead we should focus on deprivation, geography (levelling up) and differential exposure to risk factors. The evidence on life expectancy had, surprisingly, not been published before its use by the Commission, and when it was it was published sometime later, this was as experimental statistics with implied uncertainty of its robustness (ONS, 2021). The poor quality of these data and the misleading conclusions that result from them are discussed in the Appendix.

While this was happening, there was also a concrete example of the harms done by government policy, the ongoing Windrush scandal, which was named after the ship that in 1948 carried the 'first' group of post-World War II labour migrants from Jamaica to the UK. The scandal itself involved the victimisation and deportation of members of the generation of immigrants who arrived between 1948 and 1971 as children, but whose records of legal immigration were not appropriately retained. They then had their citizenship rights questioned as part of the Home Office's 2012 'hostile environment' initiative for illegal immigrants. This resulted in many of those questioned losing their jobs, housing, access to benefits, and being forcibly removed from the UK. It is worth noting that, in relation to the Windrush scandal, the Commission on Race and Ethnic Disparities (2021, p. 27) claimed that: '[o]utcomes such as these do not come about by design, and are certainly not deliberately targeted. But, when they do occur, every step needs to be taken to ensure that the reasons why they happened are understood fully, and the causes then acted on to ensure that they are not repeated.' It is hard to see how the likely negative impact of such policies on the situation of race/ethnic minority people can be anticipated and understood unless serious consideration is given to how racism shapes the actions of institutions and race/ethnic minority people's access to resources. Indeed, rather than this hostile approach, we need policies that promote equitable life chances and that address the underlying racism and marginalisation faced by ethnic minority people.

Nevertheless, a central challenge when attempting to develop policy is to move beyond simply establishing the existence and/or extent of racism and race/ethnic inequalities and go on to instead 'better understand the structures and processes of racial inequality' and the ways in which they shape people's lives and life chances (Phillips, 2010; Song, 2014; Emirbayer and Desmond, 2015). This led to the pragmatic classification presented here of structural, institutional and interpersonal racism. In fact, much of the theoretical and empirical work investigating race

and ethnicity and racialised inequalities has focused on specific dimensions of racism, and particularly on institutional racism. There has been a tendency to neglect the inter-relations between the different dimensions of racism. However, as argued above, institutional racism is not somehow distinct from structural and interpersonal racism. Crucially, institutions are both situated within and shaped by wider forms of structural racism and inequality, and are spaces within which forms of interpersonal racism operate and can acquire greater salience precisely through their institutionalisation. The central place of institutions in bringing together structural and interpersonal racism, then, leads to the need for a policy agenda focused on disrupting the ways in which particular, and inter-related, institutions produce and reproduce racial/ethnic orders and consequent inequalities. This requires a focus on how such inequalities operate within institutional structures, for example in their employment practices, and on how institutional racism shapes the provision of services and the experiences of clients. There is also a need to focus on the contexts and functions of institutions – how an institution relates to broader social structures and operates in particular contexts. Part of this is to recognise that institutions do not operate in isolation from one another. So, it is crucially important to understand how institutions and their functions relate to one another, how the boundaries between institutions operate, and the consequences of this for race/ethnic inequalities and the opportunities this provides to disrupt these inequalities.

A consideration of public sector organisations – and, in particular, the NHS – illustrates why this focus on institutions is important, and how it might work. So, in 2020, the NHS directly employed 1.3 million people and ethnic minority employees are over-represented in its workforce, with 21% of NHS staff classified as not being a member of a White ethnic group, compared with just 13% of all workers. Alongside this, other 'public' bodies, such as education and higher education, transport, and the civil service employ many more staff, again typically with an over-representation of ethnic minority people. In addition, these public sector bodies subcontract services from a large and diverse range of private employers who they can directly influence. This means that public institutions could play a central leadership role in addressing institutional racism – in developing policies that address racism and the marginalisation of ethnic minority people, and that promote equitable outcomes within both their own service and in related services – and, in doing so, such actions would shift the ideological framing of inequalities, the denigration of ethnic minority groups, and their solutions

As an employer, the public sector has meaningful potential to drive local and national employment policies and to influence employment conditions more generally. This presents an opportunity to implement positive and equitable employment practices, including for subcontractors, around issues such as holidays, sick leave, study leave, maternity leave, job security, job flexibility, guaranteed hours, limits to unpaid overtime, promoting autonomy and control, and, importantly, pension rights. Such changes are likely to mostly benefit those in lower employment grades and more precarious employment conditions, groups that have an over-representation of ethnic minority workers. For example, while 22.4% of NHS staff are members of ethnic minority groups, this is the case for only 9% of those in higher pay bands (8C or higher), when applying for NHS jobs, White applicants are 1.6 times more likely to be appointed from shortlisting than ethnic minority applicants, and 29% of ethnic minority NHS staff reported experiencing harassment, bullying or abuse from the public (NHS Workforce Race Equality Standard, 2022). Indeed, employers such as the NHS should also set about addressing the marked ethnic inequalities within their workforce by rethinking institutional structures and practices and addressing inequalities in them. This could involve developing inclusive recruitment and retention strategies to achieve diverse representation throughout the workforce, understanding and addressing race/ethnic pay gaps and inequalities in career progression, actively embedding inclusive work cultures, and nurturing the next generation of ethnic minority leaders.

In effect, this means addressing the impacts of institutional racism on the workforce. However, institutional approaches to address race/ethnic inequalities can, and should, go beyond this and address how institutional racism negatively impacts on the experiences of users of their services, and those of related institutions. This is fundamentally challenging of the focus and actions of institutions, and extremely difficult to achieve unless the leaders of institutions are willing to rethink what they do, and to do so using the tools provided by the decolonisation agenda (Lokugamage, Ahillan and Pathberiya, 2020; Opara, 2021). This means critically reflecting on how historically informed ideologies around race not only shaped the functions and actions of

institutions in the past, but continue to do so in terms of who is valued, what forms of knowledge and understanding are prioritised, how outcomes are prioritised, and how the history of the institution is commemorated and critiqued. As indicated earlier, this means working across institutions that have complementary functions, as well as within them, and working across a full range of institutions, including politics and government.

Concluding comments

Race/ethnic differences in health have been repeatedly documented in the UK, as well as across the developed world. There are variations across ethnic groups and across specific types of disease in the nature of these differences, which typically results in explanation that is focused around specific disease processes (what causes hypertension, for example) and essentialised notions of race/ethnicity – genetics and culture – neglecting the social, relational and contextual character of race/ethnic identities and consequent inequalities. In fact, there is a diversity of circumstances and experiences within, as well as across, ethnic groups, by class, gender, generation and context. However, stepping away from an individualised, or essentialised, approach shows that inequalities in health across race/ethnic groups are best understood as the product of social and economic inequalities, but these are not just a simple reflection of generalised class processes. The social, economic and health inequalities associated with ethnicity can only be understood as a result of the interplay between structural processes, social relations and racialised identities, and how they operate over time. Racism fundamentally shapes these processes.

Racism has its origins in ongoing historically determined systems of domination that serve to marginalise groups on the base of phenotypic, cultural or symbolic characteristics, thereby generating a racialised social order. In order to understand the processes that flow from this and drive observed race and ethnic inequalities, it is useful to consider three closely related and interdependent dimensions of racism. First, structural racism is reflected in disadvantaged access to economic, physical and social resources. This has not only material implications, but also cultural and ideological dimensions – material inequality is justified through symbolic denigration of race/ethnic minority identities. Second, interpersonal racism (ranging from everyday slights, through discrimination, to verbal and physical aggression) is a form of violence/trauma and emphasises the devalued status of both those who are directly targeted and those who have similarly racialised identities, thereby engendering meaningful psychosocial stress. Third, institutional racism is reflected in routine processes and procedures that translate into actions that negatively shape the experiences of members of racialised groups within these institutions. It has been argued that these disadvantages, accumulating across a life course, are the drivers of race/ethnic inequalities in health outcomes.

This, then, means that to address race/ethnic inequalities in health requires paying attention to racism, the fundamental cause. Here, I suggest that a focus on institutional racism may provide a way forward – arguing that public institutions, as major employers and providers of key services, are sites where inequalities emerging from structural and interpersonal domains are reinforced and amplified, or where they could be mitigated and reversed.

I conclude by suggesting that a similar approach – a focus on fundamental causes operating at macro (structural), meso (institutional) and micro (interpersonal) levels – might be useful when considering other major domains of inequality, such as those related to class and gender. This involves recognising that the observable, empirical, categories of ethnicity, gender and socio-economic position are not explanatory concepts, but rather associated inequalities are something to be explained. To do this, we need to reach to underlying, not directly observable, causal processes and how these shape life chances – the operation of power and resulting oppression enabled by patriarchy, racism and class structures. This also requires attention to be paid to those who have access to power, the capitalist executive, and how they use such power to strategically shape economic, social and health policy in order to disproportionately promote their interests and, consequently, harm the interests of others (Scambler, 2007, 2009, 2012).

Appendix. Estimating mortality rates and life expectancy by ethnic group in the UK[4]

Estimates of both mortality rates and life expectancy require a count of the number of people who have died (within a particular time frame) and the size of the population from which they came. The resulting mortality rate calculation is simple: the number of deaths divided by population size, with some form of age standardisation if different populations are to be compared. As described below, the life expectancy estimate is a little more complicated, but uses the same data with the inclusion of age at death and the age structure of the population for which the life expectancy estimate is made. Sources of error in such calculations, then, come from miscounting the number of deaths (perhaps because some deaths are recorded outside of the administrative district as a result of emigration), or miscounting of the population within which the deaths have occurred.

However, estimating mortality rates and life expectancy for specific ethnic groups in the UK is not that straightforward and requires quite innovative work – recent examples include Platt and Warwick (2020), Nazroo and Becares (2020) and ONS (2020a). This is in part because ethnicity is not recorded on death certificates in the UK, so to count the number of deaths within an ethnic group the death certificate data need to be matched to a source of data on the person's ethnicity, such as a census record or National Health Service records. In addition, the size of the population within each ethnic group is only directly measured at the decennial population census, so data provided by the most recent census must be used to provide an estimate of the population size for the period under study. For the data discussed in this commentary, the most recent census was conducted in 2011, so are many years out of date. To update, it requires an estimate of ethnic specific rates of emigration out of the country over the period between the census and the period for the estimate of mortality and life expectancy. In addition, analysts would typically exclude from the data people who were born after the census, and people who immigrated into England and Wales after the census, in order to avoid the difficulties of estimating their numbers by ethnicity.

Nevertheless, using ambitious approaches to deal with this problem, experimental statistics were produced by the England and Wales Office for National Statistics (ONS) to report on ethnic differences in mortality rates during the COVID-19 pandemic (ONS, 2020a) and to subsequently report on ethnic differences in life expectancy and mortality (ONS, 2021). These estimates suggest that, prior to the COVID-19 pandemic, ethnic minority people had lower mortality rates and longer life expectancies than White people. Although received with some surprise, these findings reflected earlier analysis of mortality rates during the COVID-19 pandemic, which showed the now well-known higher rates of COVID-19 related mortality for ethnic minority people, but also showed lower overall mortality rates (ONS, 2020a). So how should we interpret such findings and their paradoxical relationship with the high risk of COVID-19 related mortality? Although some have taken these findings to indicate that the inequalities experienced by ethnic minority people during the pandemic do not reflect wider and long-standing inequalities in health and their determinants, it is important to note that these were published as experimental statistics – statistics that should be treated with caution and not considered to be robust and conclusive.

Indeed, even beyond their experimental nature, there is good reason to treat them with caution. It is counterintuitive that COVID-19 related mortality would show such greatly increased risks for ethnic minority people, but all-cause mortality would show the opposite, unless there was something peculiarly unique about the way the COVID-19 virus functions – which does not seem to be the case. Or, if we argue that there was a set of factors that greatly increased the risk for all ethnic minority groups to exposure to the COVID-19 virus compared with White British people, which then led to their much higher risk of mortality, and did so uniquely in comparison with other causes of death – again something that is unlikely to be the case. This concern encourages a close look at the analysis published by the ONS.

So, what are the clues that the innovative, but experimental, work done by the ONS to estimate ethnic differences in mortality and life expectancy has used possibly inaccurate assumptions?

[4] Parts of this appendix were published as Nazroo, Bécares and Kapadia (2021).

Why might the approach used to address the problems identified above lead to inaccurate conclusions? First, there is the extensive, and reliable, evidence that ethnic minority people have much poorer health than White people. And we know that mortality is closely related to morbidity. The only way to ignore this concern would be to claim that the connection between morbidity and mortality is weaker for all groups of ethnic minority people than for White people, but this does not seem to be the case (Wallace and Darlington-Pollock, 2020).

Second, some of the findings in the data tables published by the ONS as appendices to the main report are frankly bizarre. For example, they estimate the life expectancy of a Bangladeshi woman aged 80–84 to be 15.5 years, a Bangladeshi woman aged 85–89 to be 13.5 years, and a Bangladeshi woman aged 90 or older to be 11 years. Equivalent figures for Black African women are 15.7 years, 13.3 years and 11.7 years, while equivalent figures for White women are much more sensible: 9.9 years, 7.2 years and 5.3 years. The figures for the Bangladeshi and Black African groups are extraordinary – they suggest that a Bangladeshi or Black African woman who survives to 85 or older will also survive to the age of 100 or older – and they exceed those for countries with the greatest longevity, such as Japan,[5] where in 2014 (the last year of the period covered by the ONS report) life expectancy was 11.7, 8.4 and 5.7 years for a woman aged 80, 85 and 90, respectively. Given this, it is important to look more closely at the assumptions in the models used to estimate life expectancy by ethnic group, and to ask where those assumptions may have gone wrong.

As described above, one possibility is that an overestimate of the size of the population led to an underestimate of mortality rates and, importantly, also an overestimate of the survival rate for a particular age group, which then becomes amplified across age groups leading to an overestimate of life expectancy. Here, two assumptions could have led to such an error. First, to estimate the size of the population within which deaths occurred (and the number of deaths), census data were linked to patient register data and death certification data. Where there was a mismatch between the first two of these data sources, an estimate was made of the undercount of the size of the population for a particular ethnic group (the process is described in an appendix to ONS, 2021). This undercount was greater for ethnic minority groups. An adjustment for the undercount was then made, and the subsequent adjustment inflated the estimate of the size of ethnic minority populations to a greater extent than that of the White population, and to a greater extent than the adjustment of the estimate of the number of deaths. The result is a likely underestimate of death rates in the ethnic minority population. The size of this likely error is not visible in the reports, because neither details nor sensitivity analyses are provided. Nevertheless, an examination of the data that the ONS provide suggest that, once adjusting for all other factors, the ONS estimated that the 2011 Census undercounted the Bangladeshi population by 6% more than the White population, and the Black African population by a massive 47% more. These numbers undoubtedly lead to a greater reduction in the estimate of mortality rates for ethnic minority groups compared with White people.

Second, it is likely that the ONS underestimated the number of ethnic minority emigrants returning to their country of origin when updating the population size from the counts at the 2011 Census to the period over which they estimated mortality and life expectancy. This correction is necessary because those people who emigrated will not be in the death statistics (deaths overseas are not recorded in the death certification process), but otherwise would remain in the population count. The results of this estimation process are surprising. For example, for the period 2011–12 and for Bangladeshi men aged 65 or older compared with White men aged 65 or older, the ONS estimated that there were only 6.3 more emigrants per year per 1,000, while for Black African men the number is only 3.7 additional emigrants.[6] Why might these figures be wrong? First, in order to count the number of emigrants, the ONS use a linkage between a 1% sample of the census (the ONS Longitudinal Study) and administrative data on emigration and deregistration from the NHS patient register. It is likely that both emigration records and deregistration data will underestimate the number of emigrants and therefore inflate population size. So, if ethnic minority people are more likely to emigrate, then the ethnic minority population will be overestimated to a greater extent than the White population. To try and strengthen the

[5] See https://www.mhlw.go.jp/english/database/db-hw/lifetb15/dl/lifetb15-06.pdf.

[6] In fact, these figures were not made directly available by the ONS, but were calculated by the author from their data found at https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/datasets/emigrationweightsbyagesexethnicgroupandyear.

analysis, the ONS also use records from the International Passenger Survey to estimate emigration by ethnicity. But the International Passenger Survey does not record ethnicity, so they use the correlation between citizenship and ethnicity to make their estimates and do not discuss the fact that a large majority of ethnic minority people in the UK are UK citizens, making such estimates of very limited validity.

So, both the approach to census undercount and the approach to address emigration are likely to have led to an overestimate of the ethnic minority population relative to the White population. This then produces a consequent deflation of ethnic minority mortality rates and inflation of their life expectancy relative to White people.

There is also a final major problem. As well as underestimating ethnic minority emigrants relative to White emigrants, as described above, the ONS analyses do not have data on mortality rates for emigrants, so they have statistically removed them from the data. However, mortality rates for emigrants should not be disregarded in analysis of ethnic inequalities; migrants' experiences and circumstances prior to emigration will shape their mortality risk. There are two relevant and very well documented theories in relation to this. First is health selection – those who emigrate to a new country are more likely to be healthy than those who stay (Riosmena, Kuhn and Jochem, 2017). So White migrants to a new country will have a lower mortality rate than White people who remain, leading to the risk of an overestimation of mortality rates for White people – admittedly to a very small extent, given the small proportion of the White population who emigrate. Second is the so-called salmon bias effect – those who return to their country of origin are more likely to have poor health compared with those who stay in the country they originally migrated to (Di Napoli et al., 2021). So ethnic minority people who return to their country of origin are likely to have a higher mortality rate than those who remain. Removing emigrants from the data will, then, underestimate mortality rates for ethnic minority people.

Indeed, unpublished analysis of the ONS Longitudinal Study (a representative study containing linked census and life events data for a 1% sample of the population in England and Wales since 1971) show that, subsequent to being observed at a census, ethnic minority people are more likely than White British people to be missing from future administrative and census data (on average more than twice as likely, although the extent varies by ethnic group). This suggests significant biases in both the estimate of population size and the count of deaths.

With the information supplied by the ONS, it is not possible to estimate the size, or significance, of the problems with these data. An alternative approach is to examine age at death for those people for whom we have an observed mortality record, an approach that avoids problems with estimates of both the denominator (population size and age structure) and numerator (death and age at death). An analysis of ONS Longitudinal Study members with linked mortality records shows very different results to estimates of life expectancy: the age of death for people in ethnic minority groups is, on average, more than five years younger than that for White British people (excluding White Other men, which was the only group to have a higher age at death than White British people; Stopforth et al., 2022[7]).

These concerns also lead us to question the estimates of COVID-19 related mortality by ethnic (and religious) group produced by the ONS and reported in Figure 1 of this commentary. Certainly the issue of denominator bias, the over-count of the population in ethnic minority groups, is likely to be present. Such an over-count would lead to a deflation of mortality rates, suggesting that the figures might have underestimated the extent of ethnic inequality, though probably to only a small extent. What is important, though, is that there is not likely to be an underestimate of deaths, because lockdown meant that there was no emigration over this period and because COVID-19 was a notifiable disease, so all deaths would be recorded as such.

[7] The permission of the Office for National Statistics (ONS) to use the Longitudinal Study is gratefully acknowledged, as is the help provided by staff of the Centre for Longitudinal Study Information and User Support (CeLSIUS). CeLSIUS is funded by the Economic and Social Research Centre (ESRC) under project ES/V003488/1. The authors alone are responsible for the interpretation of the data.

In conclusion, there are important concerns that we should take into account when interpreting the experimental statistics on ethnic differences in life expectancy and mortality rates produced by the ONS (ONS, 2021). It is likely that the key problems discussed above will have led to an underestimate of mortality rates and an overestimate of life expectancy for ethnic minority people compared with White people.

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