At the beginning of July People in Harmony was offered the opportunity to work with two students, Ashwini Ragawan and Tayyibah Rashid , from Queen Mary University of London over the summer holiday period. We asked them to look at the statistics relating to Covid19 and the mixed race community. This is their report.

Tayyibah **Ashwini**

The Mixed Race Community and COVID-19

People in Harmony

August 2020

PEOPLE IN HARMONY
Making Mixed Race Matter

Contents

Introduction

Around late December 2019, cases of a novel viral infection causing clusters of pneumonia cases across Wuhan, China was brought to international attention. By the 11th of February 2020, the causative virus was officially termed coronavirus disease 2019 (COVID-19)[1]. It has since spread beyond China into every continent with confirmed cases in over 188 territories. According to John Hopkin University, the UK has the 9th highest number of confirmed cases of COVID-19 with 303,064 and the 3rd highest number of deaths at 46,046 as of July 2020. However, it should be noted that the UK also accumulated over 59,000 more deaths than normally expected since the lockdown began, implying the direct and indirect implications are more likely to be more profound[2].

Since the introduction of the UK government mandated lockdown, plentiful reports and studies have been demonstrating growing evidence that the Black, Asian and Minority Ethnic (BAME) groups within the UK have increased morbidity and mortality risk from COVID-19, with Black Afro Caribbean, Indians, Pakistani and Bangladeshis with notably high risk. Although there is heavy debate regarding the causative factors, the scientific community acknowledges that the cause is likely to incorporate a combination of cultural and socioeconomic factors, including the higher incidence rates of comorbidities including high blood pressure (>140/80 mmHg), raised BMI (over 25), cardiovascular disease and type 2 diabetes within these communities.

There is an abundance of data which shows that BAME members are disproportionately represented in COVID-19 mortality and morbidity data. This report aims to find out if there are data sets on mixed race individuals. This reports also aims to explore the experiences of mixed race people and find out if they have been impacted in a similar way to BAME groups, bearing in mind that different groups will have inevitably experienced COVID-19 differently.

Importance of COVID-19 Mixed Race Community Research

A reported 14 million cases and deaths nearing to 600,000[3], COVID-19 has impacted every society worldwide and has changed the landscape of public health as a race for vaccine discovery continues.

Although the mixed race community belongs to the now more COVID-19 research-devoted BAME group and the community is contributing a growing 1% to COVID-19 mortality in the UK[4], there is little emphasis specifically on the connection between this group and COVID-19 (Figure A). All communities have been affected by COVID-19, despite being a minority, the mixed raced community requires scientific research on the impact of COVID-19 on mixed individuals.

Ethnic group	Count	Percentage	Percentage (excluding no match and not stated)
Total	**16,272**	**100%**	**100%**
British (White)	11,354	70%	77%
Irish (White)	161	1%	1%
Any other White background	544	3%	4%
	12,059	**74%**	**82%**
White and Black Caribbean (Mixed)	33	0%	0%
White and Black African (Mixed)	12	0%	0%
White and Asian (Mixed)	22	0%	0%
Any other Mixed background	48	0%	0%
	115	**1%**	**1%**
Indian (Asian or Asian British)	492	3%	3%
Pakistani (Asian or Asian British)	332	2%	2%
Bangladeshi (Asian or Asian British)	100	1%	1%
Any other Asian background	245	2%	2%
Caribbean (Black or Black British)	460	3%	3%
African (Black or Black British)	290	2%	2%
Any other Black background	146	1%	1%
Chinese (other ethnic group)	57	0%	0%
Any other ethnic group	439	3%	3%
	2,561	**16%**	**17%**
Not stated	1,256	8%	
No match	281	2%	
	1,537	**9%**	

Figure A: Ethnic breakdown of COVID-19 mortality using all data up to 21 April 2020[4].

Statistics and scientific research highlight that BAME groups are particularly at risk of COVID-19 morbidity and mortality, compared to white racial counterparts. What does this mean for mixed raced groups where there is close to no definitive research on how the virus affects the thousands of people with mixed raced identities? We need insights on COVID-19 mortality and morbidity on the mixed race community, which makes up a growing 2.2% of the England and Wales[5] population. This pandemic epitomises the need for the UK government to increase the "Mixed" identity categories beyond the four that currently exist, which include:

- Black Caribbean and White
- Black African and White
- Asian and White
- Other Mixed

These options have been established since the 2001 census and are representative of the largest mixed identities. We have seen the importance of classification and "ticking the box" in data collection and analysis, to provide the essential statistics that are allowing us to monitor COVID-19 cases and deaths. However, the current identification system that hospitals are using to report COVID-19, is limiting our insights on how specific mixed communities are affected, particularly identities that fall in the "Other Mixed" group. This is therefore restricting public health guidance and support targeted at these groups.

Scientists have uncovered many risk factors associated with the multifaceted COVID-19 disease. The unexhaustive list of high-risk groups includes immunosuppressant, pregnant, diabetic and obese people, as well as those with respiratory and multi-organ diseases[6]. Some of these factors, including diabetes, are heavily prevalent in BAME communities, which helps to explain why BAME individuals are unequally affected by COVID-19 mortality and morbidity. Statistics also recognise that older members and males of all ethnicities are disproportionately affected (Figure B).

	Deaths							
	White	Mixed	Indian	Bangladeshi/ Pakistani	Chinese	Black	Other ethnic group	Total
Males								
0-64	627	9	56	65	7	105	49	918
65+	5,762	51	242	192	34	348	148	6,777
Females								
0-64	409	9	26	35	3	80	16	578
65+	3928	25	159	94	15	233	78	4532
Total	10,726	94	483	386	59	766	291	12,805

Figure B: Breakdown of COVID-19 mortality in age and sex of mixed group since10 April 2020[4].

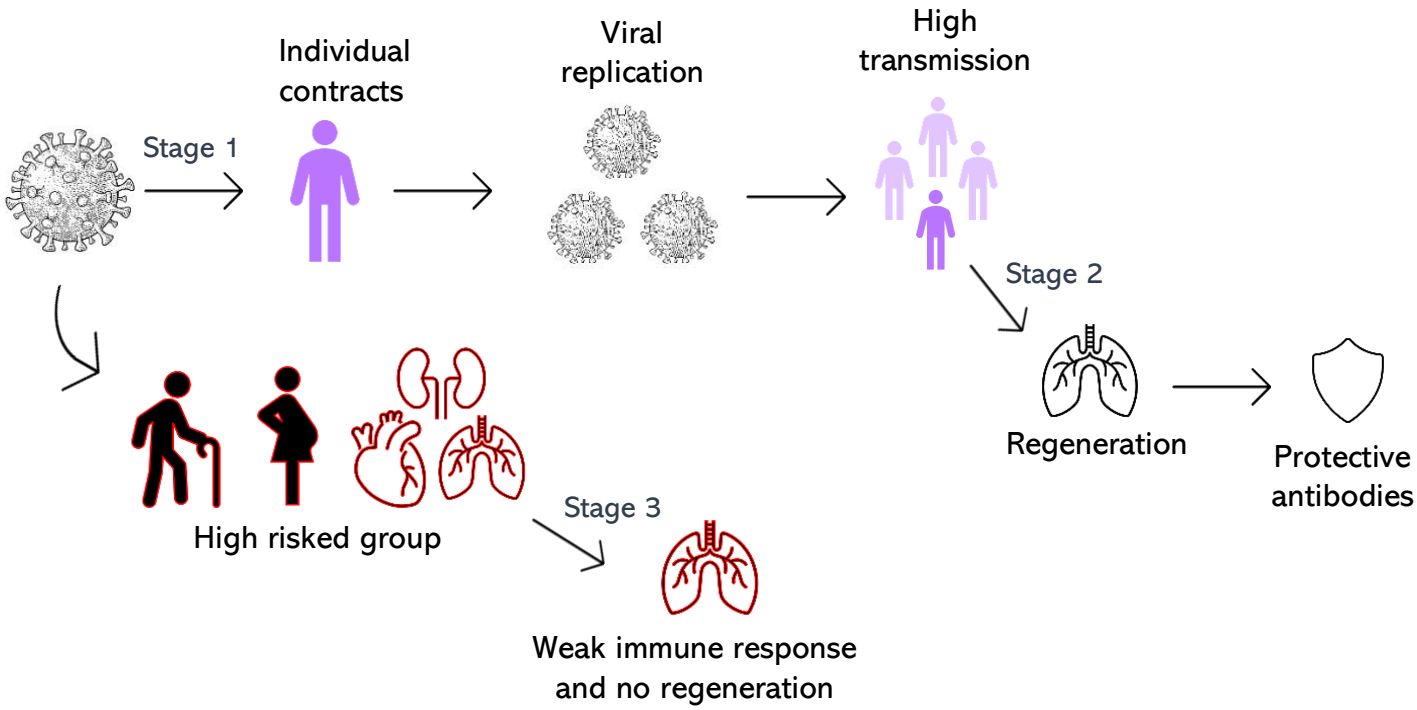
How does this affect the mixed race community? The average age of the mixed race community is 18 years old, where the majority of this group are aged between 0-24 years old[7] (Figure C). There is a miniscule elderly population, which could explain why the mixed race community is not as severely impacted by COVID-19 mortality and morbidity as much as other ethnic groups.

The Science of COVID-19 Explained

Each cell in the human body has its own miniature immune system which allows the cell to recognise a pathogen (like an invading virus or bacteria) and elicit an immune response to combat the pathogen. The cells are able to do this as the innate immune system is designed to recognise its own cells as “self” and every other invading cell as “foreign”. Thus, when a cell

detects the “foreign” cell it can quickly mobilise against it and clear it from the body before symptoms arises. In most patients, the likelihood of developing symptoms and falling ill to the pathogen depends on how quickly the pathogen spreads in your body, and how quickly your body can combat it without inflicting major damage to tissues.

COVID-19 is a virus that was derived possibly from a bat reservoir species[8], causing respiratory problems in infected individuals. The virus carries a gene which once it infects an individual, causes rapid viral reproduction in the nasal cavity; this contributes to its fast transmission across the world population[8]. The virus copies then propagate into the lungs, in stage 2 of infection, where they damage lung tissue, causing difficulty in breathing and coughing[9]. This initiates an immune response, where proteins called interferons disrupt viral replication and destroy the virus[10]. Exposure to the virus creates long-lasting antibodies which provide immunity, resulting in weaker symptoms and faster recovery on a second infection. More severely, in stage 3 of COVID-19 infection, alveoli cells in the lungs, that allow exchange of oxygen for carbon dioxide into the body, become infected and destroyed[9]. Scientists initially predicted 80% of COVID-19 infected individuals will recover, as the immune response will trigger repair and regeneration of damaged lung tissues[9]. However, unfortunately, 20% of infected people, those in the risk groups, will have reduced regenerative ability and a diminished immune response[9].



Scientists are now in a race to find a vaccine as infection rates exponentially increase. However, major breakthroughs, like the discovery of the entire genome of the virus, have contributed to creating and trialling vaccines that target the virus' genome. The National Institute for Health Research (NIHR) has approved two COVID-19 vaccination trials in the UK, facilitated by leading university research institutes. As of yet, there have been no vaccination trials specifically targeting BAME groups, despite this group posing a high risk to the virus. Currently, it is optional to record and consider participants' ethnicities in scientific research[11]. This pandemic fuels the need to orientate participant recruitment around ethnicity, particularly in health research, because different ethnic groups are affected disproportionately, as we have seen with COVID-19, and most certainly with other diseases. This will produce better research outcomes, creating reliable results representative for populations where COVID-19 results apply to all, including the heavily affected BAME community, and not just a certain part of the population[11]. For this reason, it is imperative that future research is inclusive and specific to the BAME community.

University of Leicester

- Research aims to investigate and calculate the risk of COVID-19 morbidity and mortality in ehtnic minority healthcare workers.
- Major organisations including General Medical Council, NHS Employers and BAME Professionals' Associations will provide evidence to policymakers.
- £2.1m funding

University College Hospital

- Research aims investigate the risk of COVID-19 in BAME and migrant groups in community settings.
- Factors like "household transmission, occupation, co-morbidities, healthcare usage, mental health and economic impacts"[12]. will be studied.
- £1.4m funding

Royal Surrey NHS Foundation Trust and Kings College Hospital

- The project will entail co-designing culturally appropriate health messages with and for the BAME community, to reduce COVID-19 morbidity and mortality.
- £371k funding

University of Oxford and University of Southampton

- Most relevant to the mixed race community, this study will determine how different ethnicities are affected by COVID-19 morbidity and mortality, and will provide explaination for differences.
- £327k funding

University of Leicester

- This study will use statistical modelling to establish whether the risk of COVID-19 in BAME communities is due to "differences in underlying health status, lifestyle behaviours such as physical activity, and environmental factors including measures of social inequality"[12].
- £126k funding

University of Aberdeen

- Project aims to develop a clinical trial tool called INCLUDE Ethnic Framework, where factors that will impact BAME individuals from participating in future research projects, will be considered.
- £15k funding

It is important to note that research on BAME and COVID-19 is ongoing, however promising research groups are trying to fully understand how the virus affects minority groups. £4.3 million funding has been invested in six UK research projects that investigate the influence of ethnicity

on COVID-19 morbidity and mortality[12]. The schematic above shows an overview of some of the ongoing research on the BAME community. People in Harmony wish to contribute towards progressing COVID-19 research specifically on the mixed race community.

COVID-19 Data on the Mixed Race Community

Data sets from NHS England and the Office for National Statistics (ONS) offer insight into the COVID-19 fatalities by different ethnic groups in England and Wales, as shown in Figure D. It should be noted that there is a current deficit of demographic data sets available to the public which make an accurate analysis and interpretation of whether any particular ethnic groups have been disproportionately affected by COVID-19. However, using the 2011 census (which is the most up to date data set) we can extrapolate some interesting facts. It should be recognised that not every death will be recorded by ethnicity, although up to 9.3% of hospital deaths are described as "not stated"[4]. According to Figure D (published by the Office for National Statistics in April 2020) around 83% of the deaths belonged to the "white" ethnic group. However, it should be recognised that Black, Bangladeshi and Pakistani, Indian groups are overrepresented in the death figures. With these statistics, we can see that the BAME people, specifically the mentioned heritages, have a higher death rate per capita. The table illustrates that certain BAME ethnic groups are overrepresented in death rates compared to their relatively low population numbers. The mixed race population accounts for 0.73% according to both NHS England and the ONS. There are many reasons as to why different communities have different death rates.

	NHS England (all ages)		ONS (all ages)	
	Deaths	Percent	Deaths	Percent
White	14781	82.73	10726	83.76
Mixed	130	0.73	94	0.73
Indian	560	3.13	483	3.77
Bangladeshi and Pakistani	501	2.80	386	3.01
Chinese	66	0.37	59	0.46
Black	1022	5.72	766	5.98
Other ethnic group	806	4.51	291	2.27

Figure D: The number and percentage of COVID-19 fatalities grouped by ethnic group from 2 different sources: NHS England and the Office for National Statistics[4].

- **Patterns in COVID-19 deaths and the mixed race community**

Comparisons of COVID-19 mortality rates across ethnicities can be made using Figure B. It shows that the mixed race community is the 2nd least affected ethnic group after the Chinese. Mixed race individuals could be more impacted than the Chinese due to the Chinese diaspora tending to be more geographically dispersed across the country, compared to the mixed race community which tends to be more geographically concentrated in cities, as COVID-19 is more prevalent in cites due to overcrowding. Males are more affected across every ethnicity except for the 0-64 group for the mixed race community, where there have been 9 deaths in both mixed females and males. Furthermore, 85% of male deaths and 73.5% of female deaths in the mixed race community occur in patients over 65. These figures are lower than the national average of 88.1% of male deaths and 88.7% of female death in patients over 65. A likely reason for this is that the mixed race community's population is statistically younger compared to the other major ethnic groups.

This data set shows that infected individuals under the age of 65 will generally be low risk as the majority of fatalities occur in patients over 65. This illustrates that age is an important factor in COVID-19 mortality. The primary reason why the pathogen could be more fatal to the elderly is likely due to the changes in the human immune system as we get older. The patients in the "65+" group will have slower immune responses (refer to science behind COVID-19 explained), which will allow the virus to spread further before it is detected by our cells, which could result in the COVID-19 virus more easily overwhelming the cells, causing serious morbidity and mortality.

- ## Comparing COVID-19 deaths across ethnicities when adjusted for age

Many studies have suggested that COVID-19 implications will vary across ethnic groups due to variations between demographics and socio-economic factors as well as individual health profiles. Therefore, differences between these factors across the ethnic groups could reveal links between individuals' likelihood of catching COVID-19 and/or the mortality risk once it has been contracted. The Office for National Statistics has created logistic regression models to show the relative risk of people of different ethnic groups dying from COVID-19 compared the white ethnic population as shown in Figure E.

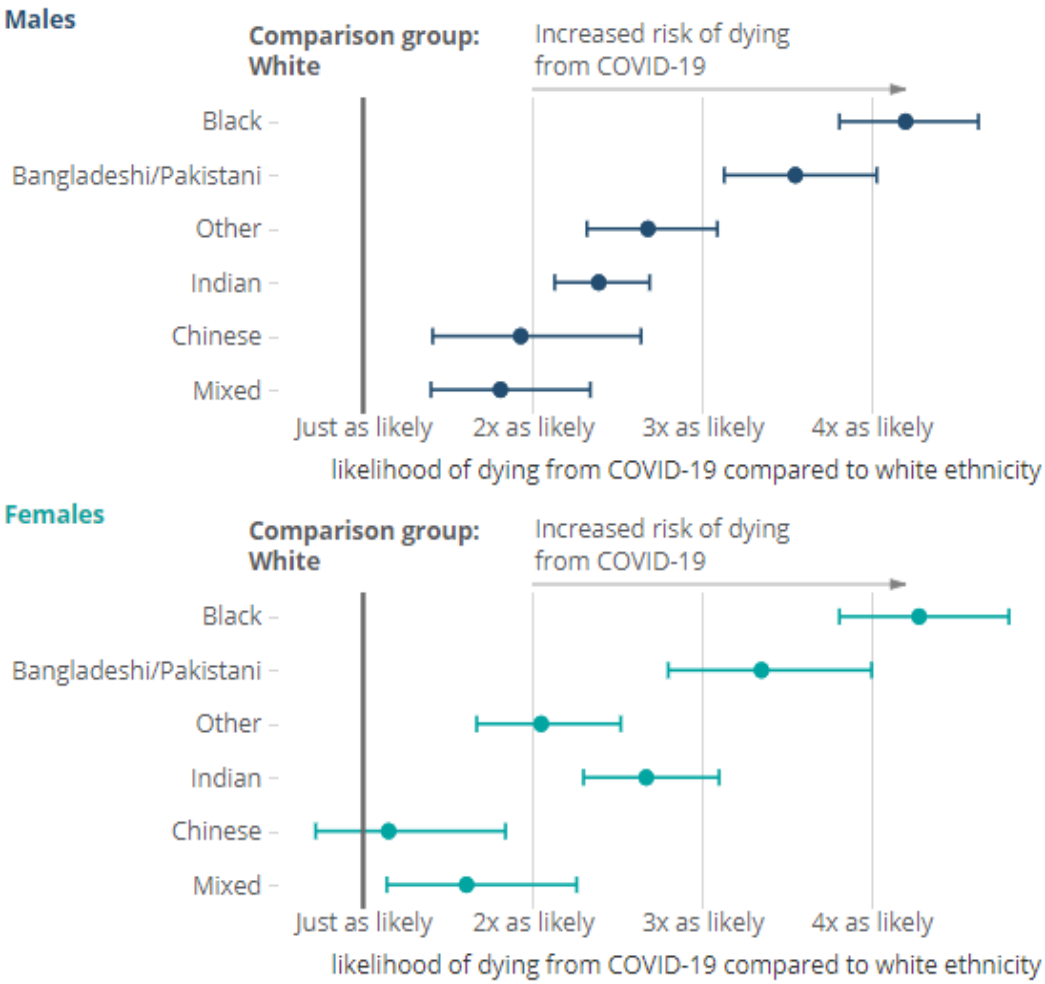


Figure E: Risk of COVID19 mortality of different ethnic groups in England and Wales between 2 March 2020 to10 April 2020 adjusted for age[4].

From earlier data sets, we know that COVID-19 death is strongly related to age. Figure E also shows that for both genders BAME people are more at risk on average compared to the white community when adjusted for age. The most significant difference was that black males and females were over 4 times more likely to die from COVID-19. Whilst not as high as the other ethnic groups, the mixed race community also has a statistically significant higher mortality rate when compared to the white population on average.

A possible reason why the mixed race community is significantly affected could be related to socio-economic inequalities, which make them more susceptible to being infected with COVID-19. Socioeconomic factors such as unemployment and overcrowding are more prevalent in BAME communities which includes mixed race. Most mixed race communities are situated in large cities which have higher incidences of the aforementioned factors and thus can increase susceptibility to ill health. According to the Office for National Statistics, 90% of local authorities with the highest COVID-19 age-standardised mortality rates were London Boroughs such as

Brent (210.9 per 100,00) and Newham (196.8 per 100,000)[13]. Areas such as Brent and Newham are urban and more deprived and thus will disproportionately experience higher COVID-19 rates in their large BAME communities[13]. It should be noted that death rates are generally higher in urbanised deprived areas, but COVID-19 is shown to be exacerbating this.

Household composition may also be a relevant factor for increased mortality risk. BAME communities and the mixed race community are disproportionately accommodated in overcrowded homes. In fact, 20% of mixed households are overcrowded as shown in Figure F; in particular this figure is 8% for mixed black African and white households[14]. This overcrowding presents a problem as it makes self-isolation almost impossible if a member in the household develops symptoms. Furthermore, these households are more likely to contain multiple generations under the same roof, making it difficult for the vulnerable people, like the elderly, to "shield".

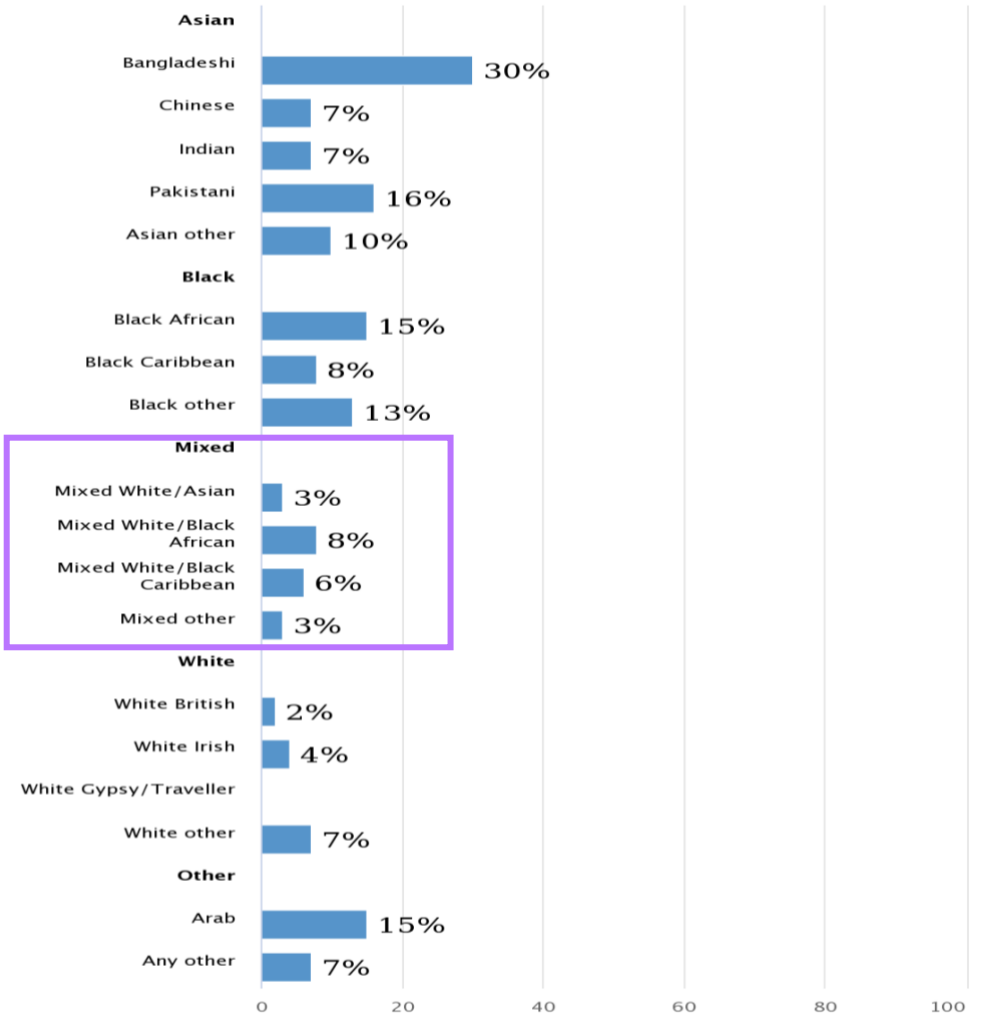


Figure F: Percentage of overcrowded households by ethnicity. Data collected from 2015 to 2017[14].

It is important to note that socioeconomic factors do not just encompass overcrowding within cites and households. An argument could be made that the circumstances of the BAME community and thus the mixed race community are partly responsible for their higher risk of contracting and developing severe COVID-19. This has been suggested as they disproportionately work in "frontline" professions in the healthcare, transport and food services sectors. These sectors are deemed "essential" services and thus continued to operate during the UK mandated lockdown increasing their exposure to the disease. However, it should also be acknowledged that the BAME community and thus the mixed race community workers did not receive the necessary PPE (Personal Protective Equipment) from the government in time in order to work safely. When you also factor in that BAME workers are more likely to live in more deprived densely populated areas, making them particularly vulnerable, they should have been considered a priority for PPE. The British Medical Association has raised concerns about high risk BAME staff having patient contact during the pandemic which needs further examination.

- ## Comparing COVID-19 deaths across ethnicities when fully adjusted

The logistic regression models in Figure G are fully adjusted for "region, rural and urban classification, area deprivation, household composition, socio-economic position, highest qualification held, household tenure, and health or disability" as defined in the 2011 Census[4]. Figure G illustrates the specific risk of death from COVID-19 for different ethnic groups compared to the White population and are not causative of the mentioned risk factors. When fully adjusted, the mortality risk drastically decreases for every group. However, the aforementioned factors, do not fully explain all of the differences, as the mixed race community is still slightly higher risk compared to the white population as shown above (varying up to almost 1.5 times as likely dying from COVID-19 compared to the white ethnicity). It can be suggested that certain psychological, environmental and lifestyle factors may play a part into higher death rates among the mixed race community.

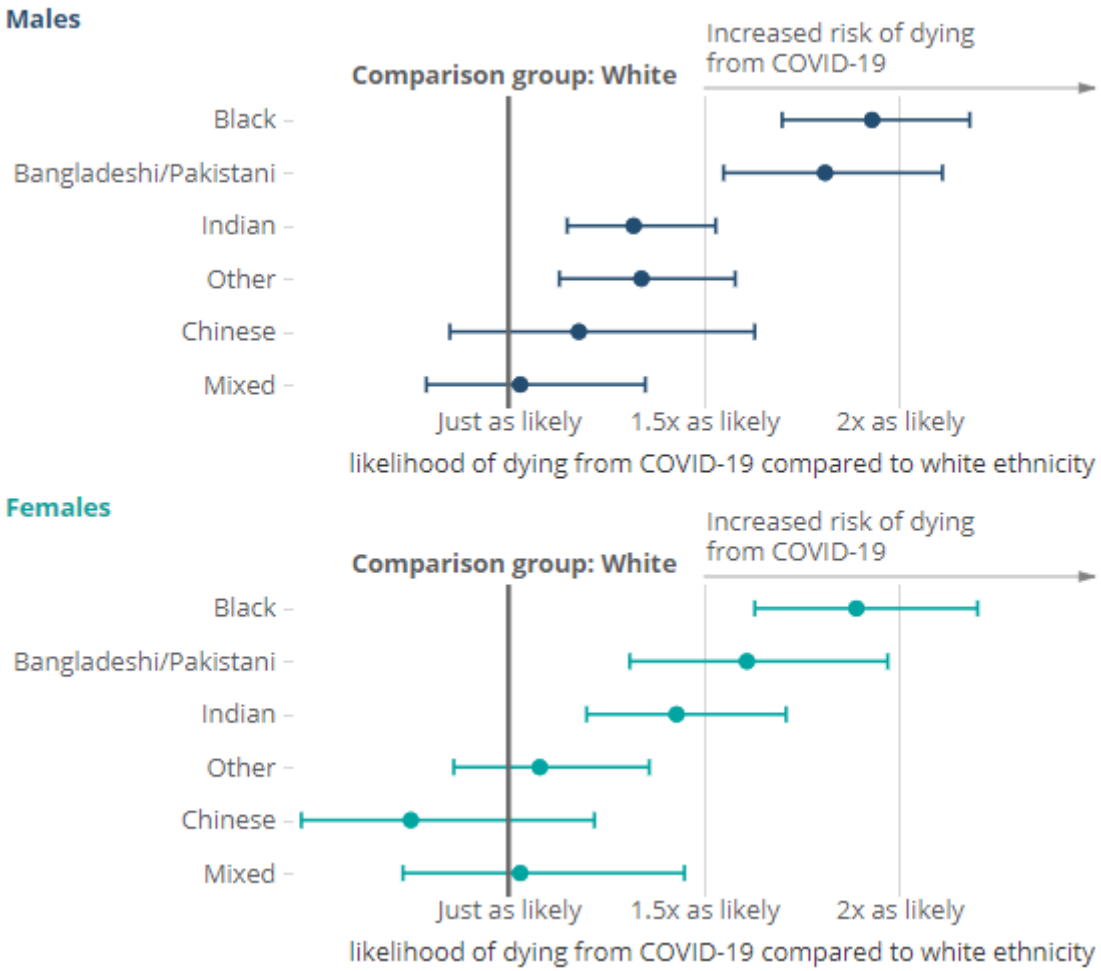


Figure G: Risk of COVID-19 mortality of different ethnic groups in England and Wales between 2 March 2020 to10 April 2020 fully adjusted[4].

Psychological factors

We are aware that whilst everyone's experience with stereotypes is varied, mixed race individuals can face higher levels of stress, either directly or indirectly, compared to the white population due to racial stereotyping. The negative social perceptions which are maybe placed upon them could increase the likelihood of negative health outcomes. The Lancet recently reported racism as a "fundamental cause of ill health"[15] and explained that BAME communities (and thus the mixed race community) disproportionately face poorer health outcomes at every socioeconomic position[14]. This is because the health impacts of racism accumulate over one's lifetime which causes the neural stress pathways and hormonal adaptations to be overactivated[14]. This will over time increase the likelihood of biologically aging faster which in turn can make an individual more likely to contract non-communicable diseases[15].

Stress could be a risk factor for COVID-19 mortality and morbidity. Stress can be acute, temporary or chronic and has devastating impacts on the immune system. Research shows that stress depresses immune responses, making us more susceptible to infections. The Lancet also reports that the trauma of racism can be passed on to future generations to affect the new offspring through biopsychosocial pathways[15]. This is further supported by the WHO Commission in their Social Determinants of Health Report which states social injustice as the biggest factor in ill health because of the way it affects an individual's livelihood, and thus consequently their probability of becoming ill and the ultimate risk of premature death[16].

Another aspect to consider is that the COVID-19 pandemic will have been deeply stressful to many individuals and families. Scientists state that the mental health consequences of COVID-19 are severe. In one study, 96.2% COVID-19 positive patients had high post-traumatic stress symptoms[17]. The fear and anxiety regarding the novel virus can easily be overwhelming for many members of society and is likely to invoke strong emotions in all age groups. The recommended public health requirements such as the shielding and the social distancing would have made many members in the mixed race community feel isolated from their health and emotional support groups as many non-essential health services were closed and families were told to distance themselves. Forcing people to live socially distantly can create or worsen depression and anxiety. The mental health charity, Mind, found in a survey of 16,000 people that the mental health of 1 in 5 adults without any pre-existing issues, was poor or very poor during lockdown[18]. The report found two thirds of adults with existing mental health issues, experienced regression in their condition[18]. Mental illness is not unusual in the mixed race community, more than 19% of mixed race adults in a week during 2014, experienced a common mental health disorder[19]. Whilst mental health conditions cannot cause COVID-19, they can impact factors like diet, sleep patterns and substance abuse which can impact immunity against COVID-19. Furthermore, the government's confusing and often inconsistent guidance and information could have also contributed to negative stress levels. Many people are very confused about the public messages they are receiving, particularly around the easing of the lockdown.

1. **Environmental factors**

Furthermore, as mixed race communities are more concentrated in large cities, they are more likely to have experienced higher levels of routine pollution and thus be exposed to harmful levels of CO_2 and NO_2 before the lockdown. These conditions are triggers for developing asthma and other underlying respiratory health conditions which we know are associated with higher

death rates of COVID-19. For people with comorbidities (particularly COPD, heart failure and asthma), their respiratory systems already have limited capacity, therefore if you add on the additional stress of COVID-19, it will further comprise the lungs' ability to properly function.

Lifestyle factors are not considered in Figure F and may play a big part in the increased rate of BAME and mixed race deaths.

1. **Smoking**

As shown in Figure H, the mixed race community contains the most smokers at 20.4% which is 6% higher than the average of 14.4% of adults[20]. Many studies have shown that smoking is causative of many adverse diseases. In particular, the negative health effects of extensive tobacco use have been established in terms of their impact on the lungs in a range of respiratory infections and cancers. Smoking increases the risk of COVID-19 morbidity and mortality as cigarette smoke damages the bronchial lining and the lungs themselves which are responsible for oxygenating the blood. If the lung tissue undergoes damage, the lungs would work with diminished capacity even when dealing with small amounts of COVID-19. Furthermore, smoking negatively impacts one's immune capabilities and adaptability to invading pathogens. These factors put long-term smokers at higher risk, which could explain why the mixed race population is more statistically disadvantaged compared to the white population.

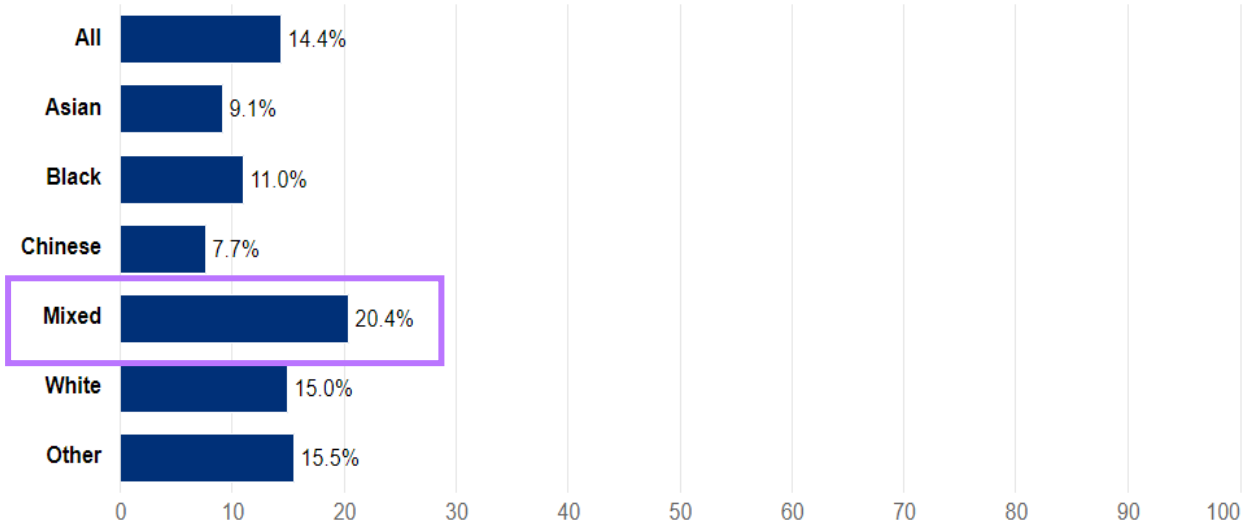


Figure H: Percentage of people who smoke in England in 2018 by ethnicity. Source: Public Health Outcomes Framework[20].

2. Obesity

Some studies have suggested that being overweight or obese can negatively impact an affected individual's lung and heart functions, which increases the probability of severe ill health with COVID-19. The Centre for Disease Control and Prevention (CDC) recently added obesity as a significant risk factor for COVID-19, equivalent to having a comprised immune system or a long-term lung condition. Many of the patients with severe COVID-19 admitted to intensive care units are obese (BMI>30). Some studies have determined that the risk of COVID-19 increases as the degree of obesity increases. One study found that 47.5% of the patients admitted were obese, of which 14.5% had a BMI of over 40[21]. Thus, obesity increases the likelihood of COVID-19 morbidity.

Obesity is a common issue in the mixed race community. Figure I shows that in 2018/19, 57% of mixed race adults in England were classed as overweight or obese[21]. Whilst this is lower than the 62.3% average it is still a cause for concern. Obesity presents chronic low-grade inflammation, which is commonly associated with high abdominal obesity, thus increasing COVID-19 risk[22]. Over time it can cause the immune system to become more vulnerable to the virus and consequently its damaging effects. Whilst the extent of the effects of COVID-19 on obese patients are yet to be defined, we know that obesity is directly proportional to the impairment of lung function[22]. COVID-19 positive obese patients have shown restrictive breathing patterns, combined with reduced lung volumes[22].

	2015/16		2016/17		2017/18		2018/19	
Ethnicity	%	Number of respondents	%	Number of respondents	%	Number of respondents	%	Number of respondents
All	61.3	170,273	61.3	166,213	62.0	151,677	62.3	152,979
Asian	57.9	6,018	56.3	6,142	57.0	4,890	56.2	5,254
Black	72.8	1,998	69.0	1,987	72.8	1,654	73.6	1,634
Chinese	36.0	857	31.5	873	34.5	741	35.3	799
Mixed	54.6	1,529	57.3	1,616	58.5	1,568	57.0	1,654
White British	62.0	146,869	62.3	142,038	62.9	129,957	63.3	131,104
White other	57.0	8,610	57.6	8,678	57.8	8,340	58.1	8,262
Other	58.5	1,191	59.5	1,084	58.3	972	52.6	1,018

Figure I: Percentage of adults who were overweight or obese, by ethnicity over time in England from 2015[21].

It is important to consider that the UK mandated lockdown could have exacerbated this problem. Since its introduction in March, there has been a drastic rise in people spending their time at home, a sharp and sudden downturn in travel journeys resulted in an overall a steep reduction in physical activity due to more people working from home and not taking any unnecessary trips. These factors could have contributed to the increase in BMI, due to the limited exercise opportunities created by the lockdown. The problem could have been exacerbated by the reduced access to support networks. Thus, to counteract this effect more physical exercise and lifestyle alterations should be incorporated alongside social distancing.

In addition, the rise in obesity in BAME and the mixed race community could also be explained by food poverty. Studies on childhood obesity for example have shown that children from lower income households suffer from obesity disproportionately. A probable reason for this could be that families with less money and less time to cook and prepare healthier, more nutritious food are more likely to choose cheap, ready-made packaged food. The increased use of cheap junk foods high in fats and sugars, often advertised directly to children and family households, may impact disadvantaged households more. Furthermore, BAME communities are more likely to live in crowded city areas with minimal access to safe outdoor open areas for physical exercise and play which would affect the child's weight. This was illustrated in the "Breaking Stereotypes with Data" report which stated that only 7.5% of mixed race people live in rural areas compared to 18.5% of the general population[5]. Furthermore, the study reported that 84.0% of the mixed race population lives in London which is significantly higher than the national average of 14.5%[5]. Overall, the data suggest that lower income families have poorer diets on average and live in overcrowded areas with a lack of public spaces. This signifies that social conditions play a big role to physical health problems like obesity.

The Effect of Lockdown on the Mixed Community

- ### Keyworkers

To reduce widespread transmission, governments across the world initiated national lockdowns and social distancing measures. This would be difficult for key workers who rely on direct or close contact to perform their jobs, like hospital and community healthcare staff who provide direct patient care and treatment. Overall BAME workers constitute 14% of the total UK key worker sector, where a minority are mixed race[23]. ONS states that ethnic minority keyworks were most represented in the health and social care sector at 19%[23]. Furthermore, it is reported that 15% of keyworkers had health conditions that put them at greater risk of severe COVID-19 symptoms, many of whom were BAME and mixed race key workers[23].

- ### Home schooling

Another consequence of lockdown which has impacted 87% of parents with dependent children, is the introduction of homeschooling[24]. Access to resources and the ability to home school due to greater demands from work commitments, are just a few perturbations of home schooling parents[24]. Lone-parent and key worker households constitute 6% of all households with dependent children[23]. These factors could have negative consequences on the educational achievement of dependent children at home, due to less collective parental support and time dedicated to studies because of greater parental work demands. As mentioned, BAME and the mixed race community constitute a minority of total key workers, plus only 2.9% of lone parent households with dependent children are mixed[25]. The majority (83.7%) of lone parent households are white[25]. This indicates the mixed race community as a whole is likely to have experienced weaker pressures related to home schooling, compared to other ethnic groups.

Conclusions for Section 1

This report highlights that the BAME community are at disproportionate risk of being infected with COVID-19 and thereafter suffering with ill health. They show statistically higher morbidity and mortality rates compared to their white racial counterparts. A scientific race is underway to better understand the biology and pathogenesis of the disease as well as to develop therapeutic and curative vaccines that are incorporating the BAME community. This will translate into better research outcomes which will provide more accurate and representative results for ethnic populations.

The People in Harmony researchers aimed to focus on the data sets and information regarding the "mixed race" population within BAME. The "mixed race" population is a growing group across the United Kingdom. Its total population has doubled since the 2001 Census when the mixed race categories were introduced. As the community becomes more influential within the social, economic and physical sectors, it is important that health research is inclusive and actively acknowledges the mixed race community.

It is important to note that there has been some research on the link between ethnicity and COVID-19 instigated by charities, research companies and the government organisations. Since it was reported that BAME communities potentially are higher risk, the influence of ethnicity has been an important ongoing research topic. The People in Harmony research sheds further light on this by researching specifically into the mixed race portion of BAME groups.

Data sets showed that the primary mortality figures for the mixed race community are lower than the national average when gender and age are considered. The data sets showed that mortality was higher for males and individuals over 65. However, the mixed race population has a greater risk of COVID-19 mortality compared to some ethnic groups such as the white ethnic group and Chinese females because the community is more geographically concentrated in large metropolitan areas like London where factors like overcrowding increase the spread of infection. While mixed race people are higher risk for COVID-19 mortality, the overall mortality figures of COVID-19 has been noticeably less as the mixed race community's population is statistically younger in comparison to all other major ethnic groups.

As the previous data sets highlighted age to be a major factor in COVID-19 mortality due to reduced and slower immune function after 65, the researchers then looked at regression models to see the relative risk of different ethnic communities dying from COVID-19 compared to the main white ethnic population. When the figures are adjusted to take the factor of age into

account, they revealed that all BAME groups have a potentially higher mortality risk on average (except Chinese females). The most significant difference was present in the black community for both genders. Whilst the mortality risk for the mixed race community was lower than the other ethnic groups, it was still statistically higher compared to the white population on average. The reasons for this are socio-economic inequalities and factors such as household composition. When the figure is fully adjusted to consider factors such as geographical location, poverty, education and socio-economic inequalities, the mortality risk drastically decreases for all ethnic groups. However, even when all these factors are acknowledged, it does not still explain the higher mortality risk for the mixed race community compared some ethnic groups such as the white ethnic group and Chinese females. In this case, psychological, environmental and lifestyle factors may contribute to higher death rates among the mixed race community.

Overall, many factors seem to influence the health of the general population and thus the mixed race community. It is unlikely that only one factor is responsible, is it more likely that a combination of factors is involved both within their control like work and lifestyle factors and outside their control like government incompetence and psychological factors.

Section 2: PIH Research on Mixed Race Experience of COVID-19.

Introduction

There is a worrying disparity in research on COVID-19 morbidity and mortality in the mixed race community. Not much COVID-19 research is tailored specifically to the mixed race community, therefore People in Harmony have conducted a survey to find out the experience of the mixed race community during and post-lockdown. Along with the survey findings from a small sample size of six participants, the methodology and supplementary online statistics, are also included in this section, due to a sparse dataset. A qualitative element of this report was important to truly find out the mixed race experience of COVID-19 and establish more context behind statistics that are available online. We found that mixed race families and couples had an overall negative experience of lockdown, where factors like homeschooling and working from home, contributed massively to this.

Questionnaire Research Methodology

A questionnaire containing 31 questions was divided into three sections, with questions based on background information of the participants and their experience during and after lockdown. The survey was conducted over a short period of four weeks, during July and August 2020. To conclusively understand the experience of COVID-19 on the mixed community, the criteria of the target audience of this research were individuals from a mixed race nuclear family unit or relationship (i.e. parents of mixed race children, mixed raced children and couples of a mixed race relationship). A promotional flyer for this research that targeted the required participants, was previewed on the People in Harmony website and shared with People in Harmony members via email. Other mixed race advocate organisations like ROTA and Intermix were contacted to support and promote the flyer on their platforms. The questionnaire was responded to via email; chosen as the best option at the time for better response rates and reach. Participant response via email would be more detailed and pre-conceived, unlike telephone interviews where participants would give incomplete, scattered and partial responses. Telephone interviews would also be logistically difficult in transcribing and time-consuming, given the constraints of this project. The criteria for participant inclusion was first come basis and that participants were part of the mixed race community. During the time the survey was open over 4 weeks, all participant

responses were included in the findings due to having a small sample size. Then responses were collated and analysed.

Results

- ### Part 1 Questionnaire analysis: Background of Participants.

Of the 6 participants of the survey, half were female, and half were male. A third identified in the 18-24 age bracket, one third in the 35-44 age group, one sixth in the 45-54 group and one sixth in the 65-74 age group. Half of the respondents had a mixed identity. The other half of participants were of Black, Indian and White ethnicity, all in a mixed race relationship. Figure J summarises background information on participants.

Participant #	Ethnicity	Age	Sex	Do they have children?	Do they live in London?
1	Black Caribbean	35-44	Male	Yes	No
2	Indian	18-24	Female	No	Yes
3	Mixed: English, Irish, Portuguese, Indian, Afro Caribbean	35-44	Female	Yes	No
4	Mixed: Black Caribbean and White	45-54	Female	Yes	No
5	White	18-24	Male	No	Yes
6	Mixed: Black Caribbean and White	65-74	Male	No	No

Figure J: Summary of the participants' background.

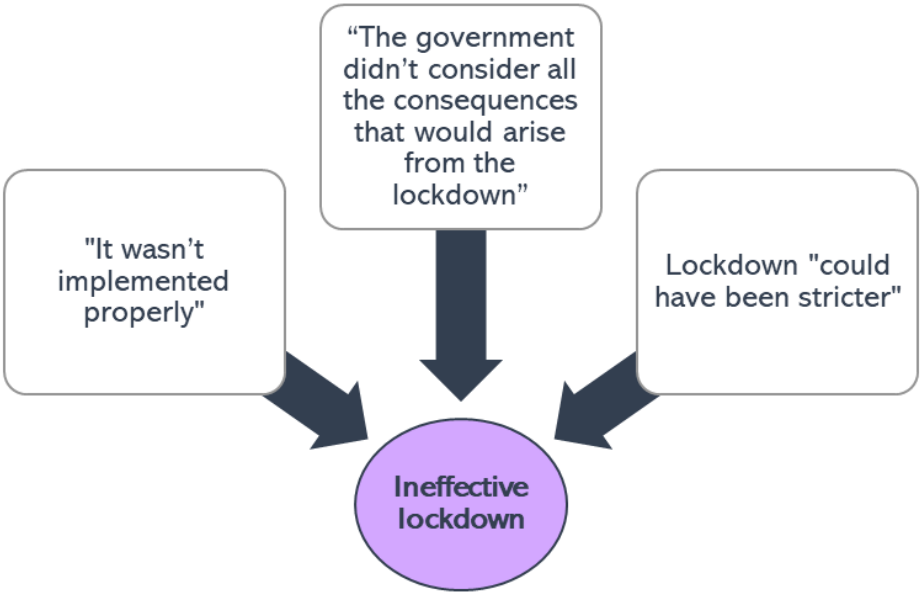
- ## Part 2 Questionnaire analysis: During Lockdown

Q1 To what extent, if at all, have you personally adhered to the UK government's mandated lockdown rules since they were put into effect?

50% of participants adhered to the lockdown rules enforced by the UK government almost all the time, while the other 50% followed lockdown rules most of the time.

Q2 Do you believe the government's decision on a mandatory lockdown was correct and effective?

Most believe that the government's stance on initiating lockdown was correct, but half of the respondents thought that lockdown was ineffective due to its late enactment. One participant of the survey mentioned that lockdown was unsuccessful because of its incorrect and sudden implementation. They felt that this had ramifications on employed individuals who as a result, had termination in work or reduction in working hours, an issue that the government did not respond to quickly. From the 24th of July, mandatory measures were implemented, such as the wearing of face masks on public transport and in shops. One participant suggested that this would have been a practical and effective solution if this was introduced during the peak of the infection, and not post-lockdown. One respondent suggested that the lockdown was an overreaction that has destroyed the economy and created a depression.

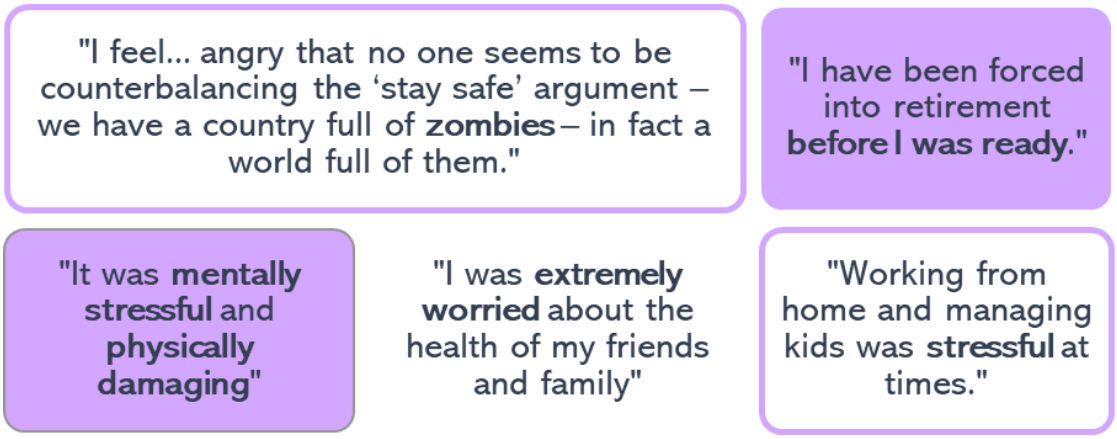


The UK government commenced lockdown on March 23rd 2020, despite the World Health Organisation declaring COVID-19 as a global pandemic nearly two weeks prior to this, and the near 30,000 COVID-19 related hospital and community deaths since 12 May[26]. By this time, countries that had the worst cases of coronavirus mortality and morbidity were already in

lockdown. Timing of the lockdown was crucial; the government considered many factors that would be impacted during lockdown, to mitigate economic, health and social detriment. These factors included overwhelming the NHS, the economy and the academia of the hundreds of thousands of children in compulsory education. However, public health professionals say lockdown was "too little, too late, too flawed"[26]. They suggest that the government did not prepare well for the biggest public health crisis in this generation. Lack of personal protective equipment and testing, mass social confusion over guidelines, discharging older patients from hospitals to community settings without testing and delaying schools closing, contributed to the inefficiency of lockdown[26]. Other research suggests that the economic impact of lockdown was detrimental: it is estimated that 7.5 million workers were furloughed in June 2020, and 300,000 people were away from work and being unpaid[27]. Also, this is evident by the most drastic decrease in GDP seen in April, by 20.4%, since 1997[28].

Q3 How has your mental health and physical wellbeing been affected by the lockdown? Please provide details.

Most respondents said their mental health was negatively affected by lockdown. One third of responses mentioned that anxiety stemmed from worrying about the health of their family and themselves. Pressures from balancing childcare and work duties were a common theme that impacted mental health, as well as being confined inside a house for a long period of time. Being at home all the time except for essential shopping and sedentary work contributed to health problems which made lockdown more difficult. A major factor that impacted 50% of respondents, was the physical detriments which led to deterioration in mental health. These respondents mentioned weight gain, weight loss, sleep worry and negative impacts on fitness. A minority of concerns that affected mental health were related to financial worries, missing family occasions and concern for vulnerable groups like domestic violence victims. Figure K summarises the causes of anxiety of participants during lockdown.



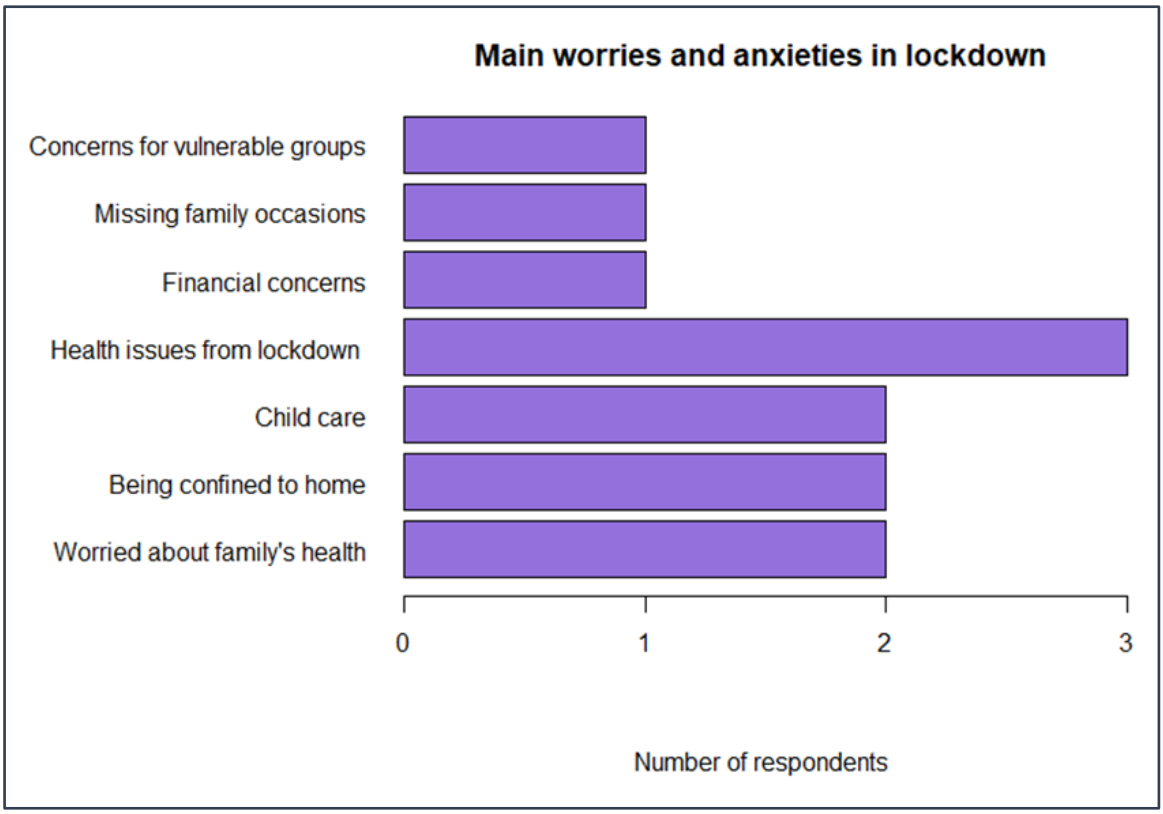


Figure K: The main worries and anxieties of respondents during lockdown.

The findings of anxiety from worrying for family, is similar to that of a large mental health research which suggests that 47% of people were worried about their family members during lockdown[29]. Furthermore, a recent study found that self-isolation during lockdown had negatively affected the physical activity behaviour of most of the UK, with greater screen time, greater sedentary behaviours, poorer sleeping patterns and changes in quality of life[30]. These factors reinforce negative changes in mental health.

Q4 What was your overall experience of lockdown? How did you feel during this time?

The majority of lockdown experiences from participants were negative, mainly due to factors such as working from home and not being able to see family outside of their household. A concern of one participant, was the national and global shortage of foods and health supplies, like vitamins and immunity boosting products. One third of participants were confused and upset about the length of lockdown; the media contributed to this uncertainty as they would often report inconsistently about the lockdown length and did not portray a confident government who would lead society back to normality. One participant felt that their community atmosphere had changed with people becoming more distant and distrustful, probably due to fear of

contracting the virus. One third of participants empathised with people who had been significantly affected by COVID-19. Participants' responses of positive experiences of lockdown included practicing new hobbies like fitness and reading, families being safe and not contracting COVID-19 and, to the surprise of one participant, spending time with their children at home was better than they expected. Figure L summarises the main negative and positive experiences of participants' lockdown.

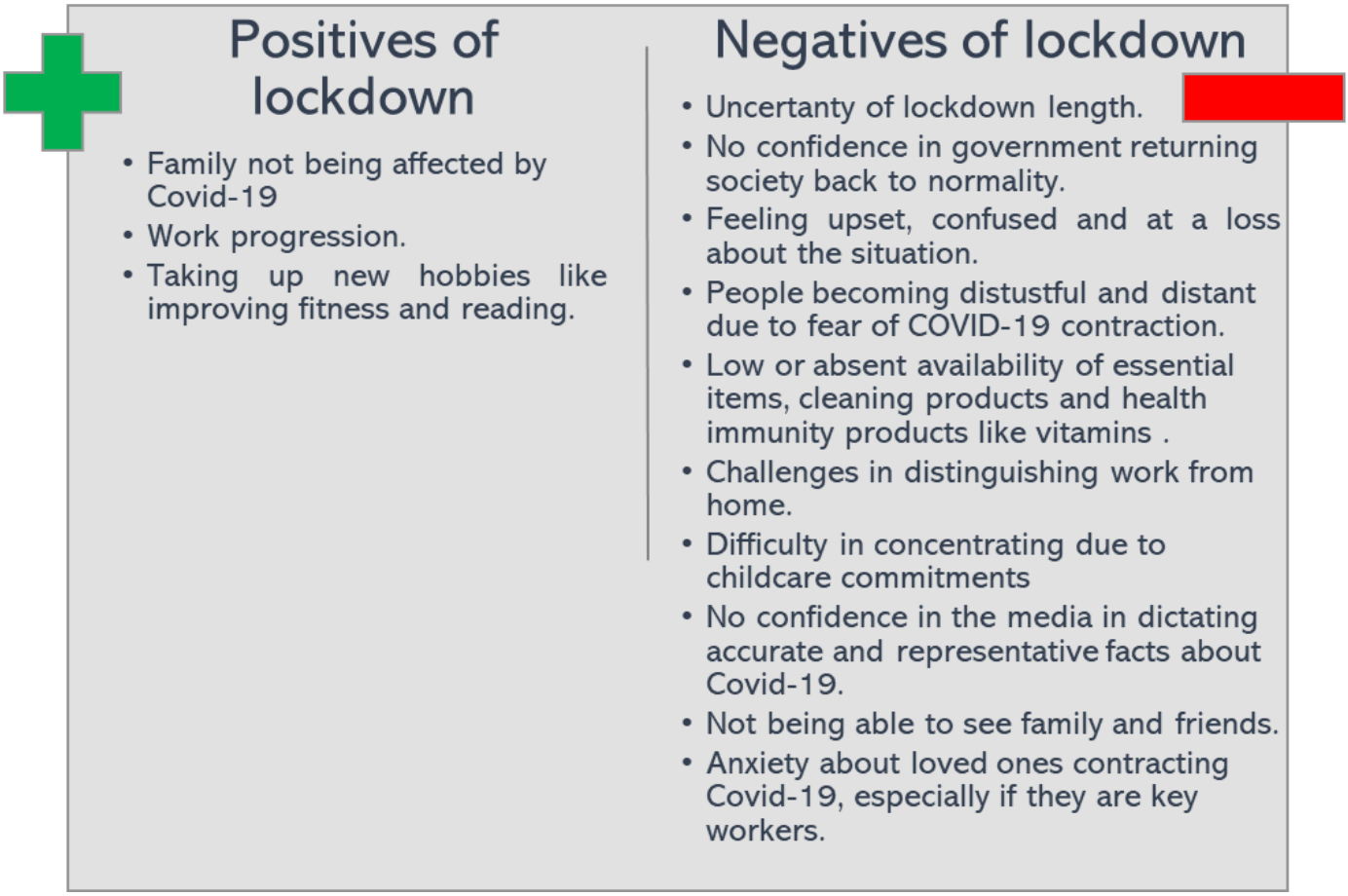


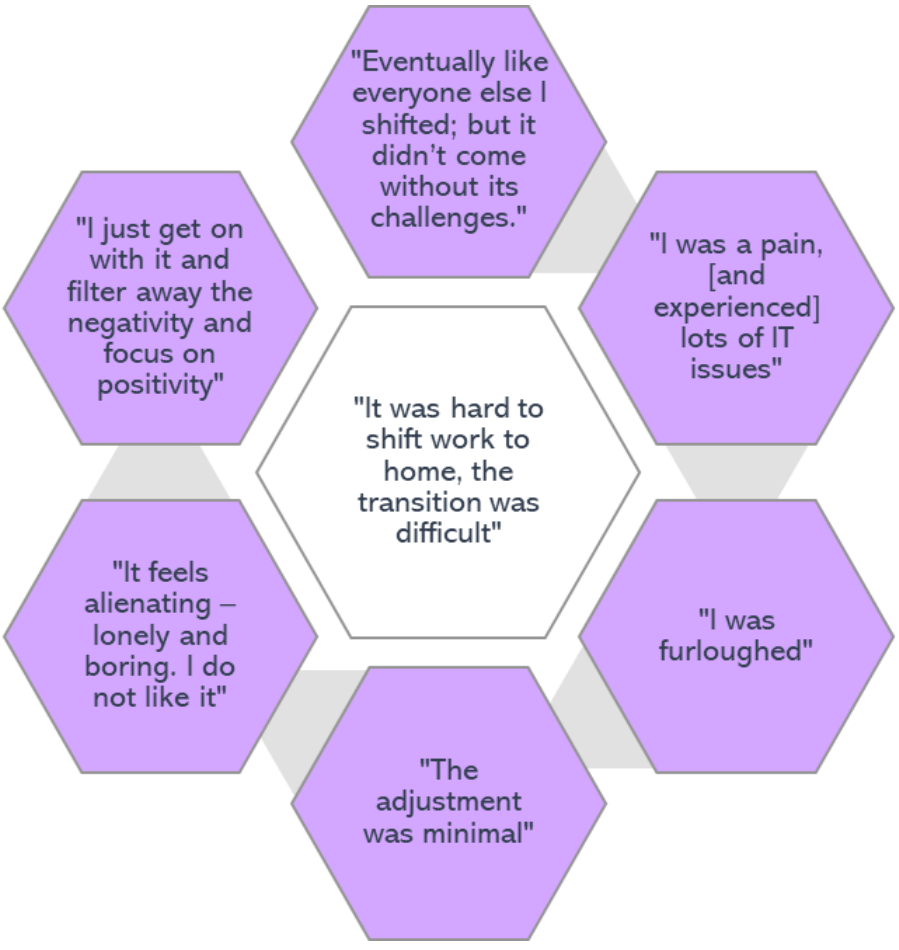
Figure L: Summary of the positive and negative factors of lockdown that participants experienced.

Food insecurity was a major concern during lockdown, To highlight the extent of this crisis, online statistics show that there was a significant increase in the use of foodbanks; a 7% increase in May and 10% in June[31]. This food insecurity was driven by a decline in UK food imports by 12.7%, or £700 million, compared to the first quarter of 2019[32]. The BAME and mixed race community may have been more affected by this factor, as they are a group at higher risk to COVID-19 than their white ethnic group counterparts.

Q5 Working from home became the norm during lockdown. Were you able to work from home? If so, how did you adapt to this? If not, this was probably because of the particular job you do. Please tell us more about this.

Two thirds of respondents worked from home, the majority found separating home life from work life challenging, especially if they had children. One participant responded to this lifestyle change by focussing on the positive outlook of working from home, like spending more time with their children. One out of six respondents mentioned that the adjustment to working from home was minimal, as this was normal for them prior to lockdown. One participant indicated common issues of working from home, such as IT issues, back pains from sitting down for long periods of times, feeling lonely and bored and not being near people. One third of participants were unable to work from home.

A larger study with a theme relevant to this question, reported that parents who worked from home during lockdown, dedicated 193.7 minutes in a working day to all childcare duties to children under 18, this includes developmental (like reading, playing and helping with school work) and non-developmental activities (such as feeding, washing and dressing)[33]. The time worked in a day was reported as 339.5 minutes[33].



Q6 How did your pre-lockdown support network differ during lockdown?

50% of respondents said that their support network during lockdown was not much different from before. A common theme across participants was the use of online communication to maintain support from family, friends and colleagues. One participant mentioned that their support from work declined during lockdown, saying that virtual support from networks was not the same as physical support.

Q7 Do you have children? If so, how was the experience of balancing work, childcare and home-schooling responsibilities? What were the more challenging aspects?

One third of participants had dependent children, who they home schooled. There were two conflicting experiences of homeschooling. One parent found it challenging and exhausting during the beginning of lockdown and adapted after realising, and accepting, that it is "definitively not possible to cover their learning syllabus". The participant preferred to distinguish home life from school life for their children. Another found homeschooling interesting, fun and flexible. The main challenge of homeschooling seemed to be balancing workloads and consistency.

To contextualise the extent of homeschooling during this pandemic, ONS found that 87% of parents home schooled dependent children[24].

Q8 Were you worried about the safety of your family during lockdown? If so, was there anything in particular that contributed to this?

The majority of respondents said they were worried about the safety of their family. One third mentioned some of their family members were key workers and BAME. This made them worry as their risk to COVID-19 was greater. One participant said that the lack of clarity and leadership from the government contributed to this fear of safety of loved ones. Another significant factor was the perceived media scare-mongering; this worsened the mental health of one participant. Lockdown would have been more difficult for those experiencing mental health problems in isolation. One participant highlighted that their worry for their family stemmed from them having existing mental health difficulties and worrying about how their family members would cope alone in lockdown. Furthermore another issue, that has contributed to worrying about the safety of family, was the lack of safety products available, like masks, hand sanitiser and gloves. One participant mentioned that they were not really worried about the safety of their family, but more concerned that they interacted with others during lockdown.

In the USA, there was a 80.7% rise in sales of hand sanitiser during the last week of February 2020, over the year before[34]. This contributed to shortages of health supplies, something that was very common in the UK.

Q9 To what extent did you feel community support was available to you during lockdown?

Two thirds of participants felt they did not receive any community support. One person suggested that lockdown rules made their friends and neighbours more anxious and "socially distant", as evidenced by less communication from them. One participant felt significantly supported by their church and from the school which maintained communication about home schooling. One respondent mentioned that they felt especially supported by their university.

ONS found that 48% of people helped others external to their household during lockdown[35]. 39% of people who offered care were mixed race, where most support was provided in the form of offering assistance with essential shopping[35]. One third of people, in the ONS research, helped someone that they did not help before the pandemic[35]. Other research suggests that during 2017 to 2018, only 11% of adults said that they offered regular care or assistance to old, disabled and sick people[35]. This indicates that overall, community support has seemingly increased during the lockdown, despite fear of COVID-19.

Q10 Have recent political events, particularly the Black Lives Matter (BLM) protests, affected the way you viewed the lockdown? Have you increased/decreased in politicisation?

Two thirds of respondents said they were not political during lockdown. They emphasised that they were worried about the impact of reduced social distancing, during BLM protests, on COVID-19 infection rates.

Global protests around Black inequality sparked after a death of an innocent Black American, George Floyd, on 25th May 2020. There were fears of a second spike of COVID-19 due to protesters not following safety measures intended to decrease the virus transmission.

Q11 How do you feel about the media coverage of COVID-19? Do you feel enough emphasis has been placed on the mixed race community?

50% of respondents felt that there was not enough emphasis on the impact of COVID-19 on the mixed race community. One third mentioned that the COVID-19 mixed race experience was masked under the umbrella of BAME, and that each ethnic minority community was not considered individually. One third mentioned that the media demonised BAME groups by creating fear that BAME individuals are most likely to contract the virus therefore more likely to spread it. These participants also believed that COVID-19 was racially politicised.

"I think it's easier for the media to mask the experience of a specific group under the umbrella of BAME without considering that the experience of the mixed-race community may differ from [the] black community or asian community and other ethnic minority groups."

"I don't think any emphasis has been placed on the mixed race community."

"Any experience apart from the majority "White British" experience has been grouped under the umbrella that is the "BAME" experience."

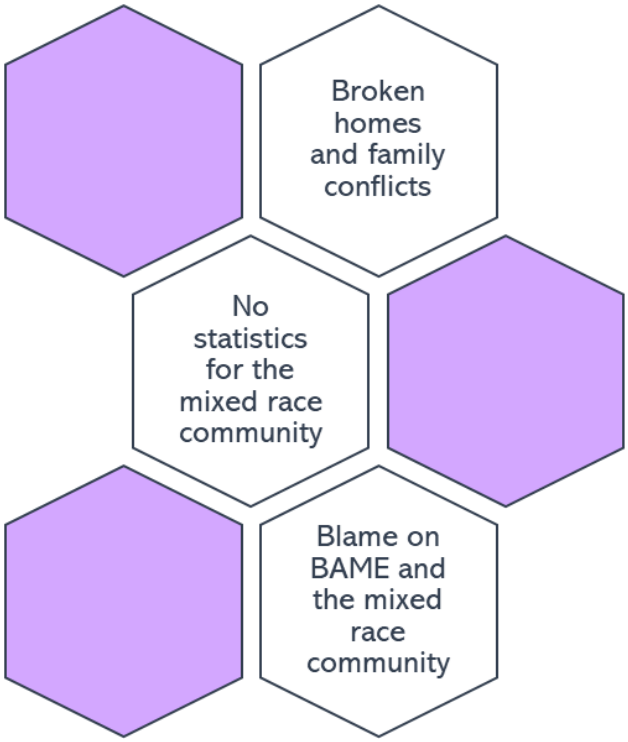
"There is never enough media coverage on mixed race."

The London School of Economics' recent research on television news coverage of BAME groups during this pandemic, suggest that the media has contributed to hostility and stigmatising attitudes towards the BAME community[36]. Press have stereotyped certain nationalities falsely identified as causing the pandemic, they have disinformed targeted ethnic minorities and have

initiated and not addressed conspiracy theories about COVID-19[36]. The research found that only 5% of news coverage, on the five main UK television news bulletins, focussed on ethnic minorities in context of the pandemic, mostly the impact of COVID-19 mortality and morbidity on frontline BAME keyworkers[36]. However, the media did facilitate a climate of increased appreciation towards frontline workers, which could have contributed to less hostile attitudes towards BAME and migrant workers[36]. Human interest news stories about fundraising for the health crisis, were overwhelmingly white and only 1 in 49 bulletins focussed on a BAME individual raising awareness and donations for a COVID-19 supported charity[36].

Q12 Can you identify a difficulty that the mixed race community has experienced disproportionately, during COVID-19? If so, please explain further.

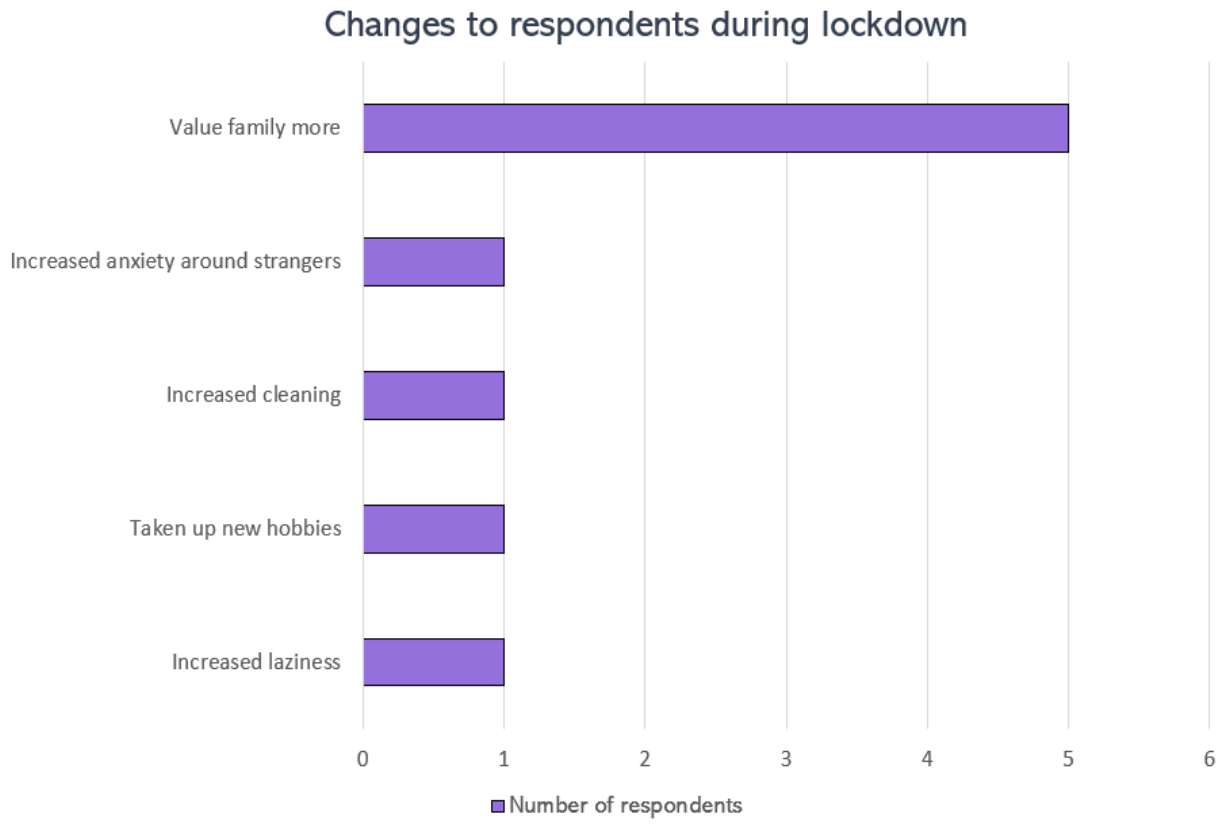
There were numerous responses to this question. Issues the mixed raced community disproportionately experienced during lockdown revolved around family difficulties and conflict. Broken homes for mixed race children was mentioned as a factor that could create instability during COVID-19. One respondent mentioned that the BAME community, including mixed race groups, would be blamed if a second wave of the virus occurs, due to this minority group instigating the Black Lives Matter protests for example. Another response highlighted that, unlike other minority groups, the mixed race community had not been made aware of specific risk factors or statistics relevant to this group. This made it difficult for individuals to accurately assess their risk to COVID-19 mortality and morbidity, which consequently may have had negative impacts on their life.



- ## Part 3 Questionnaire analysis: Post-Lockdown

Q1 How has the lockdown experience changed you or the way you look at things? Has the lockdown changed your priorities and habits?

Overall, the main way lockdown has impacted the mixed race community is the way they view and value their family. It is clear from the responses that the lockdown experience has strengthened the current bonds the respondents have between their children, their partners and their other relatives. It is not surprising that the lockdown has had some positive impacts. The lockdown experience would have allowed some people to inevitably spend more time with loved ones. In addition, the survey findings also show that respondents have stated that the lockdown has made them realise the importance of cleanliness during the pandemic. Also, on another positive note, respondents commented that they have been trying to be more pro-active around the house and by partaking in new hobbies such as gardening and knitting.



Notably, the responses also suggest an increased anxiety around strangers and the easing of lockdown. However, it is important to acknowledge that the United Kingdom and the rest of the world have not experienced a health crisis as big as the COVID-19 pandemic. It is the biggest health crisis in modern history and thus it is difficult to gauge how different communities will adjust as the lockdown gradually eases. It can be argued that it is a perfectly normal response

to have worries about reconnecting with society, particularly as some people were told to isolate and minimise all contact unless it was deemed essential. It made some respondents not sure about going back to work.

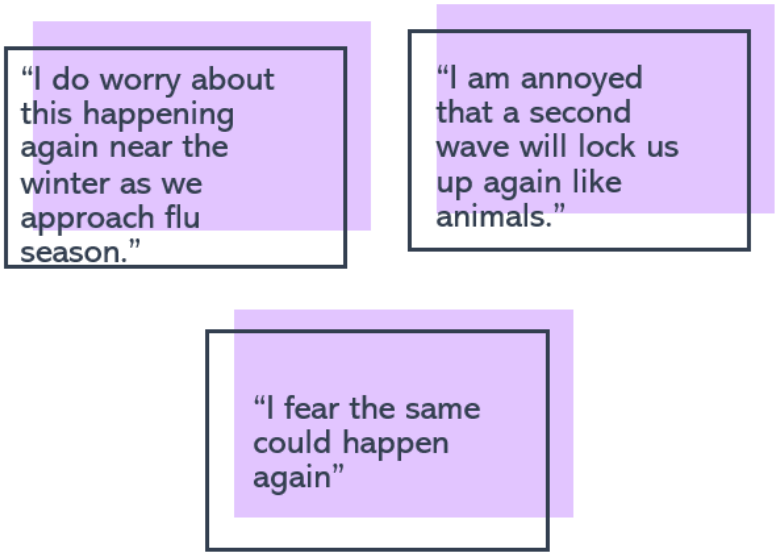
Another survey by Medipress showed that around 2/3 of their respondents reported a minimum of one positive outcome the pandemic has had for them; the main answer was spending more time with family[37]. This suggests that the response from the People in Harmony survey was representative to the rest of the UK. Similarly, according to the Office for National Statistics, many UK residents turned to activities such as cooking, gardening and reading (45%, 42%,44%) to help counter the stresses of lockdown[38].

Q2 Are you worried for a "second wave" of COVID-19 cases? Do you feel that the mixed race population is at greater risk?

All but one respondent feared a "second wave" of COVID-19 cases in the near future. A number of respondents mentioned that they were expecting a second peak immediately after the BLM protests responding to the death of George Floyd. They were surprised that the COVID-19 infection rate did not rise when social distancing rules were neglected by the protestors, as well as the guidelines to wear protective equipment in public such as gloves and face masks. The most probable reason for this is that social distancing did in fact happen during the protesting. It is likely that in most of the cities, during the height of the protests, most people avoided the demonstration sites and stayed home, which worked to offset the behaviours and consequences of the protests. It can be suggested that, for example, individuals who did not want to join the demonstrations, due to fear of catching COVID-19 or getting involved in violent clashes with the police, will have chosen to take extra precautions and avoid unnecessary commuting near these venues. Many respondents from the survey added that they felt that the mixed race community would be at greater risk if a second wave of cases did arise. Some respondents added they have already felt the inequality uncovered by COVID-19. The responses showed that the respondents felt that the government poorly handled the response to the virus the first time, which makes people fear that the same situation could arise again.

Despite the government's slow response to the disproportionate effect of COVID-19 on BAME communities, a recent Public Health England report suggests that the government have acknowledged the increased risk that BAME communities are facing and are implementing recommendations to address this. In response to BAME individuals occupying certain jobs, i.e.

in the healthcare sector, that will increase their risk of exposure to COVID-19, the government say they will increase provisions for adequate personal protective equipment and implement stronger arrangements for workplace risk assessments, with a focus on staff wellbeing[39]. The government acknowledge that BAME individuals are more likely to be in poorer socioeconomic circumstances, a catalyst for poorer health outcomes[39]. To tackle this, they will focus efforts on providing targeted, co-produced and culturally sensitive education to address common health issues prevalent in distinct BAME communities[39]. Another implementation will involve strengthening health promotion programmes as a strategy to improve overall health and to prevent chronic diseases that are classified as high risk for contracting COVID-19[39]. There will be a focus on robust and targeted health checks for the BAME community, to improve identification and management of high risk conditions[39].



Q3 Will you be complying with public health requirements as we ease out of lockdown?

100% of respondents stated that they will be fully complying with the laws and public health requirements as we ease out of lockdown. This response is important to mitigate the prospect of future COVID-19 cases, thus offsetting the chances of a second wave. These measures are necessary for an eventual return to normalcy in the future.

Q4 How do you feel about the restrictions that are being enforced post lockdown (i.e. wearing masks, social distancing, travel and shopping restrictions)?

The majority of respondents are not completely happy with the restrictions that are being enforced but understand that they are necessary even if the situation is not ideal. They add that

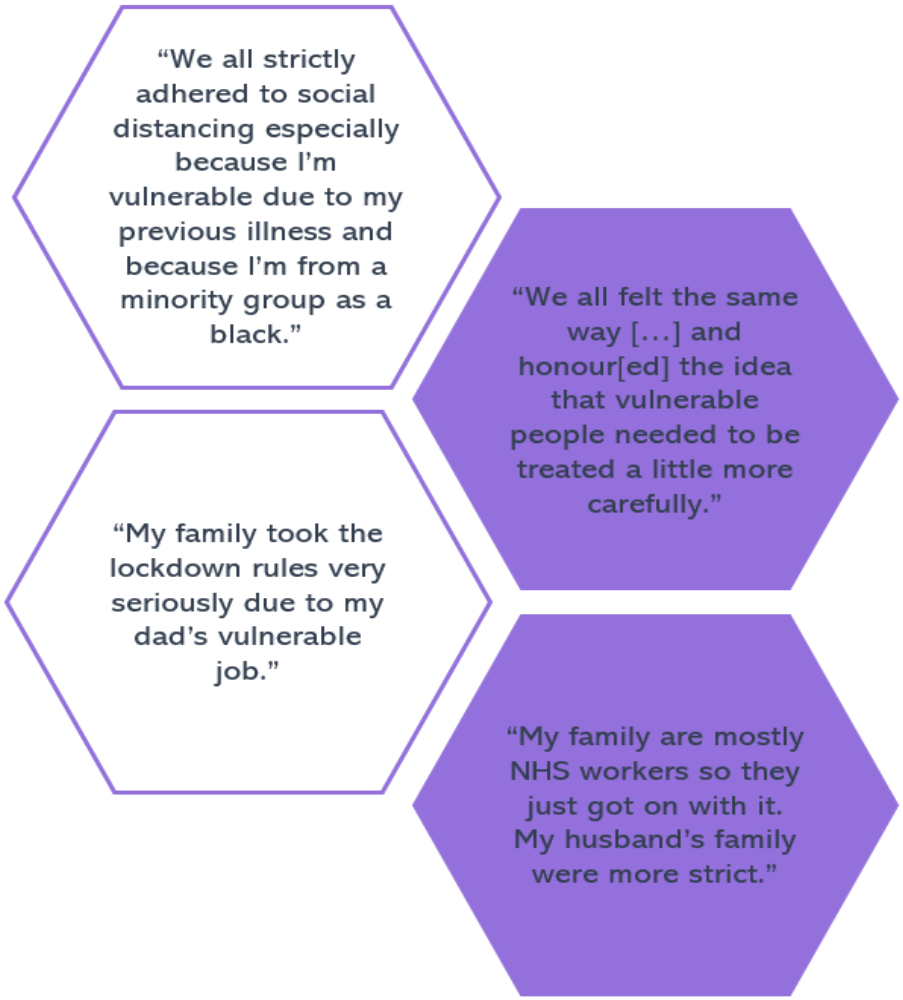
the safety advice is drafted and endorsed by health professionals who work for reputable organisations and so is it worth adhering to their advice. In addition, the respondents suggest that they believe that the restrictions are necessary to reintegrate people back into society, to enable them to return to work and visit other households. Furthermore, allowing lockdown to ease would have a net positive impact on their mental health and wellbeing. Whilst many of restrictions are frustrating, it is important to note the country is undergoing something that has never been done before. Moving the entire population of the UK out of a state of full lockdown in a way that is safe and has the least repercussions is a difficult prospect and will inevitably ask for the public to make some sacrifices in order to not undo the hard work that has been done to minimise the spread of COVID-19 until now.

Other respondents criticised the restrictions for being unnecessarily strict and borderline authoritarian. It is understandable where this opinion stemmed from. When the UK government relaxes lockdown regulations, excellent leadership is critical in order for the general public to feel safe and reassured. The abundance of inconsistent and contradicting information, regarding restrictions, could have made individuals distrustful of government advice.

Q5 What was your family's response to social distancing? Did your partner/partner's family have a different response to social distancing?

All respondents explained that their family's response and their partner's family response to social distancing were one and the same. It was clear that both sides of the families felt the same way and were in agreement that they needed to comply with the enforced rules to minimise risk to themselves and the wider community as many of them commented that they are higher

risk due to being part of the BAME community as well as having many family members in frontline professions including working for the NHS in the health and social care. Some have commented in the survey that their elderly family members underestimated the importance of lockdown rules and have had difficulty complying with them, even though are they are a particularly vulnerable group, as they would have a weaker immune system that would make them more likely to be hospitalised and die from COVID-19, as well as commonly suffer from co-morbidities.



The respondents' worries are understandable as many studies have been showing mounting evidence that the BAME community is at higher risk of COVID-19 morbidity and mortality. Furthermore, the ethnic minority communities are overrepresented in frontline professions that inevitably put them at a higher risk of COVID-19 infection, particularly in the healthcare sector. 2019 data from the NHS illustrates that of its 1.2 million workforces, around 20.7% were from the BAME community[40]. In particular, 45% of all NHS doctors and 24% of all NHS nurses across all grades were part of the BAME groups[40]. Furthermore, a worrying 72% of all NHS and social

care COVID-19 deaths were from the BAME community[41]. These statistics, showing that high numbers of frontline BAME workers are dying from COVID-19, will be particularly worrying and a reason for the strict adherence to rules to support their families.

In another international study of elderly attitudes and adherence to COVID-19 rules, the results showed that elderly were no more eager to self-isolate if they develop symptoms or on the advice from health officials than 50 year olds[42]. The pattern of lower elderly compliance was also seen with regard to preventative measures such as wearing face masks compared to younger age groups[42]. A possible reason for this could be that they feel uncomfortable with the rules as they place major restrictions on their current freedoms and their way of life.

Q6 As lockdown eased, the UK government allowed the formation of exclusive "support bubbles". If you were a part of one, what was the main reason you chose the other household for your support bubble?

When this questionnaire was conducted adult households (defined as "adults who live alone or with dependent children only") were allowed to form an exclusive "support bubble". In accordance with government rules, these support bubbles are allowed to visit and spend time inside each others homes including overnight stays without needing to remain socially distanced. When this survey asked whether respondents had formed a support bubbles with separate households, all but one said that they did create and partake in one to visit others. Our small survey revealed that relationship and companionships were the also the main reason for all the respondents that formed a support bubble. This is not a surprising observation given that the main way respondents stated the lockdown experience changed them was to value and appreciate their friends and family more. Social connection can be argued as an important primal need for human beings and is important for happiness and productivity. This could in turn explain why there was a rise of reported loneliness, anxiety and depression during the lockdown.

A similar pattern was noted in a coronavirus and social impacts study from the Office for National Statistics which showed that 89% of adults in England and Scotland have either visited or been visited by another household since the government allowed the formation of support bubbles[43]. The ONS study also showed that the biggest reason for visiting other households in their study was also for relationships and companionships[43].

Q7 If you answered Q6, was there competition/conflict between different family members to be part of your support bubble?

All respondents reported no competition or conflict between different family members to be part of support bubbles.

Conclusion for Section 2

Overall, the mixed race community respondents strictly adhered to the UK government's mandated lockdown rules since they were put into effect in March. They believe the decision for a lockdown was correct, but the decision was too sudden and it arrived too late, as it had disastrous consequences on the economy. This inevitably created an environment where the respondents experienced worsening mental health and wellbeing due to the additional stressors such as worrying for the safety of family members, self-isolation and balancing childcare and work responsibilities. Therefore, it is not surprising that the respondents felt that their overall experience of lockdown was mostly negative due to such factors and the uncertainty and confusion about the length of lockdown due in part to the mainstream media and the government. Furthermore, they added that the shift to working from home was particularly difficult due to childcare concerns such as homeschooling. In addition, trying to achieve a balance between all the variables was challenging as respondents had not receive extra community support. As people were encouraged to distance themselves, support networks moved online. Many respondents felt there was not enough coverage of COVID-19 and its impacts on the mixed race community as they are always masked under the BAME umbrella. They feel that are some issues that disproportionately affect them such as family issues and conflict, broken homes as well as other overarching problems such as potential blame for a second wave for COVID-19 cases.

Furthermore, it is evident from the responses that the lockdown has created lasting impacts. Fortunately, most individuals in our survey managed to strengthen their bonds with their family members and other loved ones as well as create more net positive habits and new hobbies whilst trying to cope with the stressors created by the pandemic. As most of the country slowly eases out of lockdown and more services are being reopened many have raised a concern for a future second wave of COVID-19 cases, particularly after the Black Lives Matter protests. If a second wave does arise in the near future, it is highly probable that the mixed race community could be higher risk for morbidity and mortality as they are part of the BAME community. The government in the "first wave" was not effective in managing the risks to BAME people which

led to disproportionate deaths within BAME communities. This led respondents to believe that the government would not be any better in future instances as there still is not a clear and concise policy to counteract the high risk the BAME community currently face. Thus, the mixed race families stated that they will be fully complying with post-lockdown regulations to minimise future risks. Although some may be unhappy with the strict restrictions being enforced, many have relatives that are frontline workers. Respondents formed support bubbles without conflict for relationship/companionship purposes. Generally, they were very understanding that the circumstances are unique and required some sacrifice and compliance for the benefit of the vulnerable groups and society as a whole.

Conclusion for the Mixed Race Community and COVID-19 Report

Since the national outbreak of COVID-19 and the introduction of the UK mandated lockdown there has been an abundance of data collected on the virus to study its biology and pathology to suggest novel treatment approaches for it. However, growing research has revealed that the BAME community are disproportionately represented in COVID-19 mortality and morbidity data. However, People in Harmony noticed that there is a worrying lack of official research on COVID-19 mortality and morbidity on the mixed race community. Thus, People in Harmony commissioned research into COVID-19 and the mixed race community in order to produce a report for public health benefit. The aim of the project was to explore the quantitative data sets on COVID-19 and the mixed race community to determine whether mixed race individuals were impacted in a similar way to BAME groups, and provide a qualitative component tailored to the mixed race community describing their lived lockdown experiences.

The research demonstrated that the mixed race community are at disproportionate risk of being infected with COVID-19 and thereafter suffering with ill health. While the official mortality numbers of the mixed race community are low due to their young population, the overall risk of high morbidity and mortality are statistically higher compared to their white racial counterparts even when factors such as age, gender, geographical location and socio-economic inequalities are considered. It is likely that psychological, environmental and lifestyle factors may also contribute to higher death rates among the mixed race community and thus more research should be conducted exploring such factors to determine the extent they influence COVID-19 morbidity and mortality. However, it is important to note that many factors will influence the health of the general population and thus the mixed race community. Thus, it is unlikely that only one factor is responsible for the increased relative risk the mixed race community faces. It is more likely that a combination of factors are involved, both that is within their control like

work and lifestyle factors and outside their control like government incompetence and psychological factors.

A qualitative section of the report was conducted to reveal the mixed race experience of COVID-19 and establish more context behind statistics that are available online. Although it is a small project, the responses suggest an overall negative experience of lockdown due to the negative implications it has on the physical health and mental wellbeing of the respondents due to the additional stressors such as balancing work and homeschooling responsibilities as well as worrying for BAME family members in frontline professions. The indecisive decision making by the government to address the higher BAME risks exacerbated the stressors. However, an overwhelming positive noted by the respondents was a strengthen bond between their family members during the lockdown.

As most of the country slowly eases out of lockdown and more services are being reopened many have raised a concern for a future second wave of COVID-19 cases, particularly after the Black Lives Matter protests, which could place the mixed race community at higher risk for morbidity and mortality as they are part of the BAME community. Thus, the respondents have empathised that they will be fully complying with post-lockdown regulations and following official health advice during these unique circumstances to protect vulnerable people and to regain a sense of normality.

This small research project has contributed to the current literature on the mixed race community and COVID-19. The mixed race population is of the fastest growing populations in the United Kingdom and People in Harmony acknowledge that it is important to be inclusive and include them in COVID-19 research. The current oversight in research into different minority ethnic groups could contribute to the spread of COVID-19, especially in impoverished communities. Amid the COVID-19 crisis, the oversight of the BAME community until they were overrepresented in mortality figures illustrates the importance of being inclusive in research. Inclusivity is an important factor take should be considered in research when considering that often, research is commissioned “for” the benefit of affected communities, rather than conducting the research “with” them. This creates the idea that the individuals in the communities do not have unique ideas and experiences to share. To mitigate this incorrect assumption, People in Harmony actively included the voices of the mixed race community to accurately present the lived mixed race experiences of lockdown.

References

1. He F, Deng Y, Li W. Coronavirus disease 2019: What we know?. Journal of Medical Virology. 2020;92(7):719-725.
2. Trivedy C, Mills I, Dhanoya O. The impact of the risk of COVID-19 on Black, Asian and Minority Ethnic (BAME) members of the UK dental profession. British Dental Journal. 2020;228(12):919-922.
3. WHO Coronavirus Disease (COVID-19) Dashboard [Internet]. 2020 [16 July 2020]. Available from: https://covid19.who.int/?gclid=CjwKCAjwmf_4BRABEiwAGhDfSWP4Ed9dYaMMLelG40DXVPD9mnNW0HEv7HcH-CinPDMMiJBMTd4rRhoCKC4QAvD_BwE
4. ONS. Coronavirus (COVID-19) related deaths by ethnic group, England and Wales - Office for National Statistics [Internet]. 2020 [17 July 2020]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/coronavirusrelateddeathsbyethnicgroupenglandandwales/2march2020to10april2020
5. Guy S. Breaking Stereotypes with data: a report on mixed race children and families in the UK. 1st ed. London: People in Harmony; 2018.
6. Who's at higher risk from coronavirus [Internet]. 2020 [18 July 2020]. Available from: https://www.nhs.uk/conditions/coronavirus-COVID-19/people-at-higher-risk/whos-at-higher-risk-from-coronavirus/
7. ONS. Age groups [Internet]. 2018 [19 July 2020]. Available from: https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/demographics/age-groups/latest
8. Shereen M, Khan S, Kazmi A, Bashir N, Siddique R. COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. Journal of Advanced Research. 2020 Jul; 24 : 91-98.
9. Mason R. Pathogenesis of COVID-19 from a cell biology perspective. European Respiratory Journal. 2020; 55 (4): 2000607.
10. Ireland D, Stohlman S, Hinton D, Atkinson R, Bergmann C. Type I Interferons Are Essential in Controlling Neurotropic Coronavirus Infection Irrespective of Functional CD8 T Cells. Journal of Virology. 2007; 82 (1): 300-310.
11. Treweek S, Forouhi NG, Narayan KMV, Khunti K. COVID-19 and ethnicity: who will research results apply to?. Lancet. 2020; 395 (10242): 1955-1957. doi:10.1016/S0140-6736(20)31380-5

12. Multimillion investment in six new research projects to investigate COVID-19 and ethnicity - UK Research and Innovation [Internet]. Ukri.org. 2020 [11 August 2020]. Available from: https://www.ukri.org/news/multimillion-investment-to-investigate-covid-19-and-ethnicity/
13. Deaths involving COVID-19 by local area and socioeconomic deprivation - Office for National Statistics [Internet]. Ons.gov.uk. 2020 [30 July 2020]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/
14. ONS. Overcrowded households [Internet]. 2018 [29 July 2020]. Available from: https://www.ethnicity-facts-figures.service.gov.uk/housing/housing-conditions/overcrowded-households/latest
15. Devakumar D, Selvarajah S, Shannon G, Muraya K, Lasoye S, Corona S. Racism, the public health crisis we can no longer ignore. The Lancet. 2020;395(10242):112-113.
16. WHO Commission on the Social Determinants of Health. Closing the gap in a generation: Health equity through action on the social determinants of health. World Health Organization, 2008
17. Vindegaard N, Benros ME. COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. Brain Behav Immun. 2020 May. 30; S0889-1591 (20): 30954-5. doi:10.1016/j.bbi.2020.05.048
18. Mental health after coronavirus: Five tests for the UK Government [Internet]. London: Mind; 2020 p. 1-14. Available from: https://www.mind.org.uk/media-a/6039/minds-five-tests-for-mental-health-final-090720.pdf
19. GOV.UK. Common mental disorders [Internet]. 2017 [30 July 2020]. Available from: https://www.ethnicity-facts-figures.service.gov.uk/health/mental-health/adults-experiencing-common-mental-disorders/latest
20. Cigarette smoking among adults [Internet]. Ethnicity-facts-figures.service.gov.uk. 2019 [cited 30 July 2020]. Available from: https://www.ethnicity-facts-figures.service.gov.uk/health/alcohol-smoking-and-drug-use/adult-smokers/latest
21. Overweight adults [Internet]. Ethnicity-facts-figures.service.gov.uk. 2020 [cited 30 July 2020]. Available from: https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/overweight-adults/latest
22. Simonnet A, Chetboun M, Poissy J, Raverdy V, Noulette J, Duhamel A et al. High Prevalence of Obesity in Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) Requiring Invasive Mechanical Ventilation. Obesity. 2020;28(7):1195-1199.

23. ONS. Coronavirus and key workers in the UK [Internet]. 2020 [19 July 2020]. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/articles/coronavirusandkeyworkersintheuk/2020-05-15
24. ONS. Coronavirus and homeschooling in Great Britain: April to June 2020 [Internet]. 2020 [30 July 2020]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/educationandchildcare/articles/coronavirusandhomeschoolingingreatbritain/apriltojune2020#toc
25. ONS. Families and households [Internet]. 2019 [30 July 2020]. Available from: https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/demographics/families-and-households/latest#mixed-ethnic-group-by-household-type
26. Scally G, Jacobson B, Abbasi K. The UK's public health response to covid-19. BMJ. 2020 May; 369 (8246).
27. ONS. Labour market overview, UK: August 2020 [Internet]. 2020 [16 August 2020]. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/august2020
28. ONS. Coronavirus and the impact on output in the UK economy: April 2020 [Internet]. 2020 [16 August 2020]. Available from: https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/coronavirusandtheimpactonoutputintheukeconomy/april2020
29. Mentalhealth,org. Wave 2: early April, a week into lockdown [Internet]. 2020 [16 August 2020]. Available from: https://www.mentalhealth.org.uk/our-work/research/coronavirus-mental-health-pandemic/key-statistics-wave-2
30. Hammami A, Harrabi B, Mohr M & Krustrup P. Physical activity and coronavirus disease 2019 (COVID-19): specific recommendations for home-based physical training, Managing Sport and Leisure. Managing Sport and Leisure. 2020 Apr; 25 (4)
31. The COVID-19 consumer research [Internet]. London: The Food Standards Agency; 2020 p. 1-3. Available from: https://www.food.gov.uk/research/research-projects/the-covid-19-consumer-research
32. FarmingUK. Coronavirus: UK food exports decline by over £700m. 2020 [Internet]. [15 August 2020]. Available from: https://www.farminguk.com/news/coronavirus-uk-food-exports-decline-by-over-700m_55739.html

33. ONS. Parenting in lockdown: Coronavirus and the effects on work-life balance [Internet]. 2020 [16 August 2020]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/parentinginlockdowncoronavirusandtheeffectsonworklifebalance
34. Statista. Coronavirus (COVID-19): dollar sales growth of hand sanitizers in the United States as of February 2020, by retail channel [Internet]. 2020 [17 August 2020]. Available from: https://www.statista.com/statistics/1104484/impact-of-coronavirus-on-sales-values-of-hand-sanitizer-in-the-us/
35. ONS. Coronavirus and the impact on caring [Internet]. 2020 [17 August 2020]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/morepeoplehavebeenhelpingothersoutsidetheirhouseholdthroughthecoronaviruscovid19lockdown/2020-07-09
36. Morani M, Willmington L. 'A bit more human'?: trends in TV news coverage of BAME people during the pandemic [Internet]. 2020 [31 August 2020]. Available from: https://blogs.lse.ac.uk/covid19/2020/06/26/a-bit-more-human-trends-in-tv-news-coverage-of-bame-people-during-the-pandemic/
37. Coronavirus lockdown made many of us anxious. But for some people, returning to 'normal' might be scarier [Internet]. Medicalxpress.com. 2020 [cited 17 August 2020]. Available from: https://medicalxpress.com/news/2020-05-coronavirus-lockdown-anxious-people-scarier.html
38. Eight things that have kept us going in lockdown [Internet]. BBC News. 2020 [cited 17 August 2020]. Available from: https://www.bbc.co.uk/news/uk-52578358
39. Beyond the data: Understanding the impact of COVID-19 on BAME groups [Internet]. London: Public Health England; 2020 p. 1-69. Available from: https://www.gov.uk/government/publications/covid-19-understanding-the-impact-on-bame-communities
40. Trivedy C, Mills I, Dhanoya O. The impact of the risk of COVID-19 on Black, Asian and Minority Ethnic (BAME) members of the UK dental profession. British Dental Journal. 2020;228(12):919-922.
41. Coronavirus: BAME people make up 72% of all NHS and carer deaths with COVID-19 [Internet]. Sky News. 2020 [cited 17 August 2020]. Available from: https://news.sky.com/story/coronavirus-bame-people-make-up-72-off-all-nhs-and-carer-deaths-with-covid-19-11977263

42. Sarma J. COVID-19: Older people need to follow precautions to avoid disease [Internet]. Thehealthsite.com. 2020 [cited 17 August 2020]. Available from: https://www.thehealthsite.com/news/elderly-people-not-willing-to-isolate-at-higher-risk-of-covid-19-infection-756364/

43. Coronavirus and the social impacts on Great Britain - Office for National Statistics [Internet]. Ons.gov.uk. 2020 [cited 17 August 2020]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/coronavirusandthesocialimpactsongreatbritain/10july2020