CARIBBEAN COMMUNITY HEALTH PROFILE 2022

A BOLDER HEALTHIER BIRMINGHAM

Foreword

The Caribbean Commonwealth Community Health Profile was commissioned by Birmingham City Council to review the evidence on the Caribbean Commonwealth community in Birmingham and nationally. The report synthesises evidence on the experiences, needs and outcomes of the Caribbean Commonwealth community across a range of health and well-being indicators, including education, employment, housing, mental health, disabilities, substance (mis)use and physical activity. It illustrates the multi-layered barriers and inequalities faced by people with Caribbean Commonwealth in relation to their health and everyday lives and highlights gaps in the existing evidence base. The report demonstrates the public health need for comprehensive monitoring, research, and engagement with Caribbean Commonwealth communities at a local and national level.

The Caribbean Commonwealth Community Health Profile is part of a wider series of evidence summaries produced by Birmingham City Council which focus on specific communities of interest.

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Community Evidence Summary

As The Caribbean Commonwealth Community Health Profile identifies and summarises the national and local evidence concerning the health, lifestyle behaviours and wider determinants of health that affect Commonwealth Caribbean communities in Birmingham. It covers the health topics from maternity to aging and dying well; includes health status risk factors such as diabetes, CVD (cardiovascular disease); protect and detect topics such screening and vaccinations; and other themes such as knowledge and understanding around health issues affecting from Commonwealth Caribbean communities.

The Caribbean Commonwealth comprises 15 English-speaking island countries and the mainland nations of Belize and Guyana. In the England and Wales decennial census this Caribbean descent population is captured by two categories. 'Black Caribbean' which comprises both migrants from the Caribbean (the 'first generation') and also many of the second generation; and many in the 'Any other Black/African/Caribbean background' category (especially those describing themselves as 'Black British', the children of Black Caribbean migrants. Within this report, to ensure information is collected for all Commonwealth members, the terms 'Black British,' 'Other Black,' and 'Black Caribbean' will be explored.

There were 47,641 Black Caribbean residents in Birmingham in the 2011 Census, the largest Black Caribbean population in England and Wales, with 8% of all Black Caribbean people. 61.7% (n=29,399) who were born in the United Kingdom. There were 18,728 'Other Black' residents in Birmingham, 70.5% of whom were born in the United Kingdom.

Black Caribbeans in Birmingham had an age structure typical of an ageing population, one of the oldest age structures across census ethnic groups, with relatively large numbers in adult age groups, especially the 20 to 54 age range and relatively low numbers in the under 20 population. There were significantly higher numbers of females than males in the 20 to 54 age groups.

The Black Other population in Birmingham in 2011 had a different, more youthful age structure, with very small numbers in the over 55 age groups and a significant young population aged 0-14. There are significantly more males than females in the 10-14 age group and in the 30-44 age groups.

In their dealings or interactions with officialdom, this community appears to be content to accept 'Black Caribbean' as an ethnic identifier rather than specific island communities. The children of Caribbean migrants prefer the term 'Black British', with around half of the Other Black group writing in this term.

The Black Caribbean population in Birmingham is overwhelmingly Christian and this religion is also the largest amongst the Black Other group. Nearly all Black Caribbeans (98.5%) reported English as their main language. In the 2011 Census 51.2% of Black Caribbeans selected a British identity only, while 30.3% chose an English identity only. 11.4% wrote in an Other identity only (not including any UK identities

The evidence and understanding of health inequalities faced by Commonwealth Caribbeans in Birmingham has been identified through this summary report through a variety of information sources. The thematic area present key findings, before exploring the evidence in further detail throughout each section.

The key health inequalities identified within the profile are:

- Compared to White counterparts, maternal mortality rates are substantially raised amongst people of Black ethnicity, though lower amongst Black Caribbeans (3%) than Black Africans (11%)
- Black Caribbean and any Other Black children aged 4-5 and 10-11 have amongst the highest prevalence of obesity of any ethnic groups
- In 2019-20 9.1% of Black Caribbean students got at least 3 A grades at A level, the lowest of all ethnic groups apart from Irish Traveller
- Black Caribbean females are more likely to be overweight/obese than the general population of females. Rates between Black Caribbean males and the general population of males are similar to each other
- With respect to full-time employment, rates in Black Caribbean men aged 25-49 were consistently below those of the White British in 1991, 2001, and 2011; in the case of Black Caribbean women, rates were persistently higher than for White British women
- Compared with the White group, the incidence of dementia was 25% higher in Black Caribbean women and men, respectively. Mortality rates for dementia and Alzheimer's disease were amongst the highest for these groups.
- In the 2004 HSE the prevalence of doctor-diagnosed diabetes was second highest in Black Caribbean men and women, rates reflected in 2017-19 mortality data.
- Research studies indicate that men and women of all minority ethnic groups are significantly less likely to take up bowel cancer screening, lack of awareness of the service being one barrier. Black Caribbean men were also disproportionately less likely to attend for Abdominal aortic aneurysm (AAA) screening.
- In the first COVID-19 wave fully adjusted mortality rates for Black Caribbean men were amongst the highest and in the middle of the range for Black Caribbean women. In the second wave fully adjusted mortality rates were in the middle of the range for both Black Caribbean men and women. Males and females of Black Caribbean background were also at elevated risk in the third wave in fully adjusted rates.

Methodology

The Community Health Profile for the Caribbean Commonwealth Community in Birmingham has been conducted as a narrative or rapid review of the scientific and grey literature. The methodology chapter will describe the target population, the literature search strategy, and the analysis or synthesis of findings.

The target population

People of Caribbean Commonwealth descent (subsequently referred to as the Caribbean Commonwealth community of descent) may be difficulty to capture for a number of reasons. Clearly, it is a highly heterogeneous community with respect to country origins, of which there are 17 islands and 2 mainland countries. There is also likely to be diversity with respect to cultural factors and when the main flows of migration took place. For some countries these flows were small with respect to the numbers migrating, limiting the likelihood that there will be a health and healthcare literature on the migrants from them. With respect to some of the larger islands, such as Jamaica, that contributed a significant proportion of Black Caribbean migrants, there may be a few studies at a national or regional scale but a sparsity of health and healthcare literature specific to Birmingham. Some data may be available for Black Caribbeans by country of birth, such as that for infectious diseases and questions on limiting long-term illness.

The main sources of evidence are likely to be for relevant census ethnic group categories, of which there are two. Firstly, the 'Black Caribbean' group mainly comprises migrants from the Caribbean Commonwealth, and much smaller numbers from other countries in the Caribbean. Secondly, the Caribbean Commonwealth community of descent includes the so-called second (and subsequent) generation. Analysis of Census data reveals that the children born in Britain of Caribbean parents tend to identify themselves as 'Black British' and to write-in that description or something similar in the 'Any Other Black Background' ('Black Other') category. These two categories will be available for routine data collected by such bodies as the Office for National Statistics and NHS Digital. Moreover, such data is often released at a number of different area levels of output. While tabular data is frequently for England or England and Wales, there may be some data for Government regions or local authorities. However, even datasets designed to serve the needs of local areas, such as the Local Authority Profiles in the NHS fingertips database, may lack data on migrant and minority ethnic groups when inequalities are the focus.

However, a problem with some analyses using census categorisations by bodies such as NHS Digital and ONS, is that they are for the five broad ethnic groups or pan-ethnicities ('White', 'Mixed', 'Asian', 'Black', and 'Other'). This is a major drawback as there is substantial concealed heterogeneity in the 'Black' collectively, comprising the Black Caribbean, Black Other, and Black African groups. Data may be released for even broader collectivities, notably, all those groups who are not White (frequently referred to by Public Health England and other official bodies by the acronyms 'BAME' and 'BME'). This aggregating of 14 Census Categories substantially diminishes the validity and utility of such data[1]. A range of factors may shape decisions about the level of aggregation of categories at which data is released, including the numbers in the study population or the subgroups needed for analysis. Where the 'small numbers problem' ('sparse data bias) is encountered, the data is often released at the five-group (sometimes called pan-ethnicities) or higher level. However, these algorithms may sometimes be used for convenience or easier analysis as much of the variability is removed. Where the numbers in the study population are large, data providers generally make use of the

full census ethnic group classification (16 categories in the England and Wales 2001 Census and 18 categories in 2011), following ONS guidance. There is no data that disaggregates the 'Black Caribbean' and 'Black Other' categories further.

More granular data than Census ethnic group categories is sparse. The write-in responses under the 'the Black/African/Caribbean/Black British' open response option in the 2011 Census were too diverse to yield data on discrete communities that could be released as 'Small Population' tables. Although more granular ethnic group classifications are available for birth notifications, these fine-grained categories are aggregated to the Census ethnic categories for reporting. Similarly, some general practices collect ethnic group data for the fine-grained classifications available in the READ and SNOMED-CT codes though, again, they are frequently aggregated to census ethnicity classifications when reported. A recent trend has been to pool and anonymise this data for particular types of GP practice computer software, which is then released as data platforms for analytical purposes, e.g. QResearch and The Health Improvement Network (THIN). The patient numbers in these consolidated databases are generally large enough to release data for the full census categories, for example, QResearch contains the records of over 35 million patients. Fine-grained ethnic data (more granular than the census) is available in the Department for Education (DfE)'s 'Extended Category' codes but only 'Black European' and 'Black North American'.

Inclusion and Exclusion Criteria:

Studies are included that have been published since 2000 (with a few notable exceptions). No use was made of literature on Caribbean-origin populations in international settings outside the UK (such as the United States, Canada, Australasia, and European countries) as these populations have different migration trajectories and have been subjected to different processes of racialisation and discrimination. Countries tend to have their own highly specific histories and processes of ethnogenesis. In Britain, the country's colonial past provides a unique context for processes of racialisation of the country's Black Caribbean population. However, limited use is made of the literature on the health and healthcare of Black Caribbeans in their country of origin. Some studies, for example, focus on this population as a comparator group for Black Caribbeans in Britain. Experiences in country of origin are less likely to be relevant for a descent group whose main migration took place in the 1960s and have gone through a process of acculturation than a community (such as Black Africans) that is at an early stage in their process of acculturation.

Information sources:

Extensive use is made of relevant datasets released by the Office for National Statistics, NHS Digital, Public Health England, and other government datasets hosted on the Race Disparity Audit's Ethnicity Facts and Figures website. The other main source of data is the peer-reviewed journal literature and published books, and grey literature reports produced by voluntary and community groups.

Search Strategy:

Use was made of a wide range of online electronic resources available at the University of Kent's Templeman Library. These include full-text access to all the main medical and health services research journals, social care journals, and journals covering the fields of ethnic and racial studies, migration, diversity, and equality, as well as Academic Search Complete and the full-text journals published by Cambridge University Press, Oxford Journals, Sage Journals Online, Taylor and Francis Journals, and Wiley Online Journals. The specific literature databases searched were: two citation databases (SCOPUS and Web of Knowledge) and literature databases (notably, BioMed Central /MEDLINE, CINAHL, Cochrane Library, International Bibliography of the Social Sciences, Science Direct, SocINDEX, and ZETOC). Google Scholar and Google were the main databases used to capture grey literature. Searches were also undertaken on a number of organizational websites, including the Office for National Statistics, NHS Digital, NHS England, and Public Health England (the latter accessed via GOV.UK).

An extensive range of keywords and other search terms were used. Structured searches were undertaken on these terms in combination with those to capture the target population ('Caribbean Commonwealth' 'Caribbean', 'Caribbean islands', 'Black Caribbean', 'Black Other', 'Other Black', and 'Black') through the use of Boolean search algebra and lemmatised terms. Some of the databases, such as MEDLINE, have their own structured search syntax. The literature searches were designed to capture both epidemiological/quantitative and qualitative studies, and systematic and narrative reviews published since 2000.

The keywords selected for the searches reflect the coverage of the specified topics list for the chapters. In some cases, additional topics have been added to those listed: e.g. school absences (as well as school exclusions); children looked after and children in need (as well as children in care). Several conditions relevant to the Black Caribbean population have also been included, notably, sickle cell disease. The concluding chapter focuses on patient experiences and access to services.

Data extraction and synthesis

All the results of literature and database searches were scrutinized, and abstracts read. The full text of relevant papers was retrieved, and relevant information extracted, notably, details of the study population and data source, the results or outcome measures, and any limitations of the study.

The findings of the analysis were presented as a research synthesis under each of the designated topic sections. In reporting data from ONS, NHS Digital, and other official datasets and individual research studies, some account is given of the study population and the source of the data. Outcome measures (such as age-specific rates, age standardised rates and ratios, relative risks, etc.) are reported with 95% confidence intervals where available, to provide a measure of whether the findings are robust or statistically significant (the confidence interval describes the uncertainty inherent in an estimate, and describes a range of values within which we can be reasonably sure that the true value actually lies). Where there are multiple research findings for a particular outcome measure, these are reported individually because of the likely heterogeneity in research design, study population, etc. A range of comparators are used, including the 'White' or 'White British' groups, the 'Black Caribbean' and 'Black Other' groups in the 'Black' set, and the groups representing the highest and lowest values in the range. The 'White' comparators are useful in that they provide a measure of White advantage or privilege.

IN THE 2011 CENSUS, BIRMINGHAM WAS HOME TO

47,641 Black Caribbean residents, the largest Black Caribbean population in England and Wales, with

8% OF ALL BLACK CARIBBEAN PEOPLE LIVING WITHIN BIRMINGHAM

THE BLACK CARIBBEAN POPULATION IS ONE OF THE OLDEST ACROSS ETHNIC GROUPS IN ENGLAND AND WALES, WITH

14% AGED 65 AND OVER

Only the White British and White Irish ethnic groups had older populations

BLACK CARIBBEANS IN BIRMINGHAM HAD AN AGE STRUCTURE TYPICAL OF AN AGEING POPULATION, WITH RELATIVELY LARGE NUMBERS IN ADULT AGE GROUPS, ESPECIALLY IN THE 20 TO 54 AGE RANGE

THE BLACK OTHER POPULATION IN BIRMINGHAM IN 2011 HAD A DIFFERENT, MORE YOUTHFUL AGE STRUCTURE (THAN THE BLACK CARIBBEAN POPULATION). THERE WERE VERY SMALL NUMBERS IN THE OVER 55 AGE GROUPS

THE ISLANDS OF THE COMMONWEALTH CARIBBEAN ARE

Jamaica, Trinidad and Tobago, the Windward Islands (Dominica, St. Lucia, St. Vincent and the Grenadines, and Grenada), Barbados, the Leeward Islands (Antigua and Barbuda, St. Kitts and Nevis, the British Virgin Islands, Anguilla, and Montserrat), and the so-called Northern Islands (the Bahamas, the Cayman Islands, and the Turks and Caicos Islands).

A BOLDER HEALTHIER BIRMINGHAM

1. Introduction

1.1 Caribbean Commonwealth Community

1.1.1 Community Demographics and Overview

The Caribbean Commonwealth Community Profile concerns the population resident in Birmingham that had its origins in the English-speaking area of the Caribbean (fig. 1).

Figure 1: The Caribbean Commonwealth:

The Caribbean Commonwealth is the geographical term that applies to the English-speaking islands in the Caribbean and the mainland nations of Belize (formerly British Honduras) and Guyana (formerly British Guiana). The islands of the Commonwealth Caribbean are Jamaica, Trinidad and Tobago, the Windward Islands (Dominica, St. Lucia, St. Vincent and the Grenadines, and Grenada), Barbados, the Leeward Islands (Antigua and Barbuda, St. Kitts and Nevis, the British Virgin Islands, Anguilla, and Montserrat), and the so-called Northern Islands (the Bahamas, the Cayman Islands, and the Turks and Caicos Islands). These independent island

nations, British Overseas Territories, and the two mainland nations once constituted the Caribbean portion of the British Empire and are now part of the Commonwealth of Nations. This area is also known as the English-speaking Caribbean, Anglophone Caribbean, Anglo-Caribbean, and British Commonwealth Caribbean, while the term British West Indies has fallen out of use. While the 'Caribbean Island Commonwealth' excludes Belize and Guyana, this community health profile includes the two mainland nations as well as the islands as there were significant migrant flows from both to Britain in the years following the end of the Second World War.

The independent island countries within the Caribbean Commonwealth are Antigua and Barbuda, the Bahamas, Barbados, Dominica, Jamaica, Grenada, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, and Trinidad and Tobago. The two independent mainland countries within the Caribbean Commonwealth are Belize and Guyana. The term British Overseas Territories or British Caribbean Territories encompass Anguilla, British Virgin Islands, Cayman Islands, Montserrat, and Turks and Caicos Islands.

1.1.2 Diet

The Caribbean six food groups are staples, legumes, animal foods, fruits, vegetables, and fats and oils. The first of these, the staples group, includes rice, ground provisions (tubers), wheat, oats, corn, and starchy fruits, is always represented at each meal, and forms the foundation of the Caribbean diet.

1.1.3 Other cultural characteristics: Carnival

The annual celebration of carnival is an important part of Caribbean culture. Traditionally, most Caribbean islands celebrate carnival on Ash Wednesday or the days leading up to Lent. Barbados celebrates the delivery of the last Sugar Canes - called 'Crop Over' but better known as the 'Sweetest Summer Festival' - in August.

1.2 National Context

1.2.1 Demographics

The number of Black Caribbeans and Black Other people resident in England and Wales in 2011 who were born in Commonwealth Caribbean countries (shown by †) (as well as selected other Caribbean countries) and migrated here over four periods (before 1981, 1981-2000, 2001-2006, and 2007-11) is shown in Table 1, below. Several characteristics of this migration can be identified. It relates mainly to those who identified as 'Black Caribbean' with relatively small numbers of 'Other Black' ethnic group (see Appendix 3 for data). The numbers migrating generally decline across the four periods, with the largest number migrating before 1981. This is because the main migration from the Caribbean took place decades ago. For example, 82,287 Black Caribbeans migrated from Jamaica before 1981. For 2007-11 the number was just 5,175. However, as the data relates to migrants who were still living in Birmingham in 2011, it does not count all those who migrated: some may have died, and others may have migrated out of the area or even out of the country. Further, these countries of birth were skewed in terms of size, with the flows from Jamaica being by far the largest, and a second set being much smaller (including Barbados, Grenada, Guyana, Trinidad and Tobago, and St Lucia). There are no estimates from the Census of the 'full' size (migrants and those born in the UK) of the population with ethnic origins in the 17 Caribbean Commonwealth countries and territories as there were just the two census ethnic group options. Table 1: Black Caribbean Ethnic

Table 1: Black Caribbean Ethnic Group: Country of birth by year of arrival. Geographical level: England and Wales. All usual residents born outside the UK, 2011 Census.

Country of Birth	All usual Residents born in the UK	Arrived before 1981	Arrived 1981-2000	Arrived 2001-2006	Arrived 2007-2011
Total: Country of birth	7,505,010	143,773	48,032	32,012	13,318
Antigua and Barbuda	3,697	2,431	310	289	116
The Bahamas	1,812	25	85	81	151
Barbados	18,672	13,082	1,069	752	460
Bermuda	3,875	35	59	113	305
Belize	1,252	112	115	23	35
British Virgin Islands	262	9	18	41	58
Cayman Islands	784	5	18	48	87
Cuba	2,355	93	121	149	129
Dominica	6,359	4,321	593	471	188
Grenada	9,274	6,558	820	430	289
Guadeloupe	558	71	179	79	67
Guyana	21,417	5,389	1,726	1,421	510
Jamaica	160,095	82,287	29,506	19,428	5,175
Martinique	411	17	119	77	53
Montserrat	7,270	2,212	3,271	669	261
Netherlands Antilles	933	214	55	105	90
Aruba	596	332	17	10	8
St Kitts and Nevis	5,629	4,440	272	152	102
St Lucia	9,096	5,135	1,167	1,002	480
St Martin (French part)	126	6	19	27	25
St Vincent and the Grenadines	7,390	4,223	586	773	430
Trinidad and Tobago	22,872	5,629	3,696	1,949	893
Turks and Caicos Islands	100	2	6	20	34
United States	177,185	158	486	377	435
Caribbean (Not otherwise specified)	4,150	2,914	252	107	54

Source: 2011 Census, England and Wales. Table CT0263 - Country of birth by year of arrival by ethnic group.

Key:† Countries in the Caribbean Commonwealth.

1.2.2 Components of population change

With respect to population change, the Black Caribbean group grew through natural increase by only 4.6% between 2001 and 2011. However, immigration minus emigration (net migration) fell by 0.6%. The annual number of births to women born in the Caribbean has steadily declined from 2008 (3,403) to 2020 (2,162). There has also been a fall in births to mothers born in the UK over the same period, from 537,854 to 434,024. The total fertility rates for mothers born in the Caribbean declined from 2.8 in 2001 to 2.3 in 2011, compared with 1.6 and 1.8 to mothers born in the UK. Using the census-based fertility from the child/women ratios, Simpson and Jivra[2]j have calculated fertility rates for Black Caribbeans as 1.67 (1991), 1.21 (2001), and 1.35 (2011), compared with 1.70 (2001) and 1.83

(2011) for the White British group (across 8 groups only the Chinese had a lower fertility rate). For comparison, from the Labour Force Survey own-child method, Coleman and Dubuc[3] calculated the total fertility for Black Caribbean women to be 1.88 for the years 1996-2000 (compared with 1.72 and 1.87 for White British and other Black, respectively) and 1.94 for the years 2001-2005 (compared with 1.71 and 2.23 for White British and other Black, respectively).

1.2.3 Languages

Nearly all Black Caribbeans had English as their main language. Of 577,826 Black Caribbeans in England and Wales, 569,304 (98.5%) selected English. Of Other Black persons, 82.3% of the total of 257,560 in England and Wales selected English.

1.2.4 National identities and passports held

In the England and Wales decennial census this Caribbean descent population is captured by two categories. The 'Black Caribbean' population comprises both migrants from the Caribbean, the so-called 'first generation', and also many of the second generation. The children of these migrants mainly self-identify using the write-in 'Any other Black/African/Caribbean background' and describe themselves as 'Black British'; however, some in this Other Black group are also migrants. The census also has a 'Mixed: White and Black Caribbean' option that is selected by children of Black Caribbean and White parentage or other recent ancestry. This mixed group is not included in the profile.

In the 2011 Census around a half (51.2%, n=24,376) of Black Caribbeans selected a British identity only, while 30.3% (n=14,430) chose an English identity only. 5,431 (11.4%) wrote in an Other identity only (not including any UK identities). Fewer Other Black (n=7,406, 39.5%) selected a British identity only but around the same proportion (n=5,788, 30.9%) an English identity. Almost double the proportion (n=4,191, 22.4%) wrote in an Other identity only (not including any UK identities).

1.2.5 Ethnicity and ethnic subgroups

Island identities, such as Jamaican, Trinidadian, and Barbadian, and those of the two mainland countries (such as Guyanese), may have some saliency as personal identifiers amongst Black Caribbeans in Britain. However, in their dealings or interactions with officialdom, such as filling in the census and official forms, this community appears to be content to accept 'Black Caribbean' as an ethnic identifier. The Census gave respondents an opportunity to write in their own island identifier (in the 'Any other Black/African/Caribbean background') but none did. The exception was Cuba, outside the Caribbean Commonwealth, and then just a small number of cases nationally). Of the 18,728 Birmingham respondents who ticked the 'Other Black' category, 8,929 (47.7%) wrote in 'Black British' in the free-text option.

1.3 Birmingham Context

In the 2011 Census Birmingham was home to 47,641 Black Caribbean residents, the largest Black Caribbean population in England and Wales, with 8% of all Black Caribbean people living within Birmingham, followed by Croydon (5.3%) and Lewisham (5.2%), both in London. Of this population of 47,641, 61.7% (n=29,399) were born in the United Kingdom. There were 18,728 'Other Black' residents in Birmingham, 70.5% of whom were born in the United Kingdom.

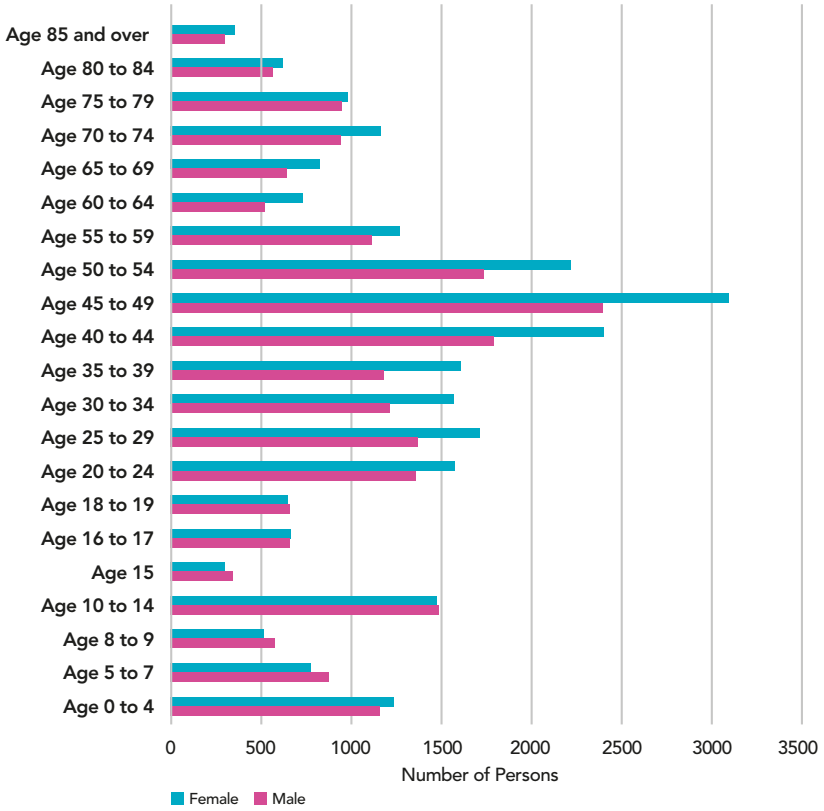
The age and sex of the Black Caribbean and Black Other populations in Birmingham in 2011 are consistent with national populations for these groups (figures 2 and 3 below). The Black Caribbean population is one of

the eldest across ethnic groups in England and Wales, with 14% aged 65 and over. Only the White British and White Irish ethnic groups had older populations. Moreover, 37% of the Black Caribbean population were aged 40-64, the second highest after the Irish group. Only 27% of the Black Other group were aged 40 and over. Conversely, only 16% of the Black Caribbean population was under 15, compared with 36% of the Black Other population.

Black Caribbeans

Black Caribbeans in Birmingham had an age structure typical of an ageing population, with relatively large numbers in adult age groups, especially in the 20 to 54 age range, as seen by figure 2 below (see appendix 4 for data table). By comparison numbers in the under 20 population were relatively low. There was a significant female excess in the 20 to 54 age groups that diminished in size in the older age groups. The relatively high proportion of Black Caribbeans in the elderly age group has clear implications for the provision of health care. Bécares *et al.*[4] note: 'The UK has not collected any survey data specifically on older ethnic minority populations, but data from 2004, the last year when the Health Survey for England oversampled ethnic minority people (over 15 years ago), found that the proportion of people aged 61-70 reporting fair or bad health was 34% for White English people but 86% for Bangladeshi people, 69% for Pakistani people, 63% for Indian people, and 67% for Black Caribbean people. These data show that the health of White English people aged 61-70 is that for Caribbean people in their late 40s or early 50s…'.

Figure 2: Age and sex structure of Black Caribbean residents in Birmingham, 2011.



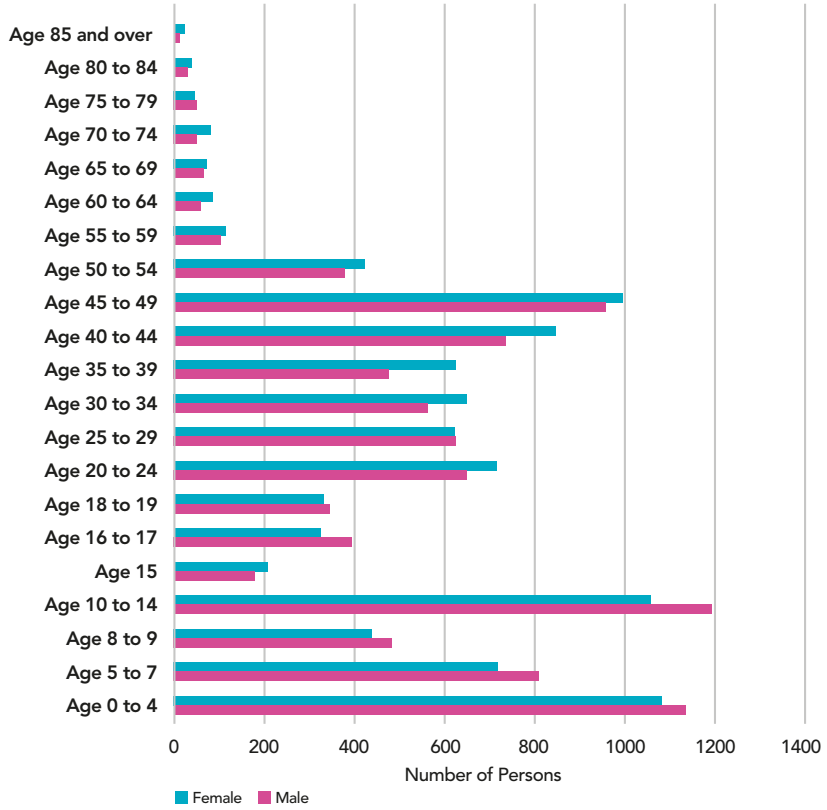
Source: England and Wales 2011 Census. Table DC2101W – ethnic group by sex by age.

Black Other

The Black Other population in Birmingham in 2011 had a different, more youthful age structure, as seen by figure 3 below (see Appendix 4 for data table) than the Black Caribbean population. There were very small numbers in the Over 55 age groups, the size of the age bands in the range 20-54 is

consistent with a second generation of people of Black Caribbean descent, the children of Black Caribbean migrants who mainly identified as 'Black British'. The Black Other group contains a significant young population aged 0-14. There are as few notable differences in the sex balance: an excess of males in the 10-14 age group and of females in the 30-44 age groups.

Figure 3: Age and sex structure of Black Other residents in Birmingham, 2011.



Source: England and Wales 2011 Census. Table DC2101W – ethnic group by sex by age.

1.3.2 Where Black Caribbeans and Black Other live in Birmingham

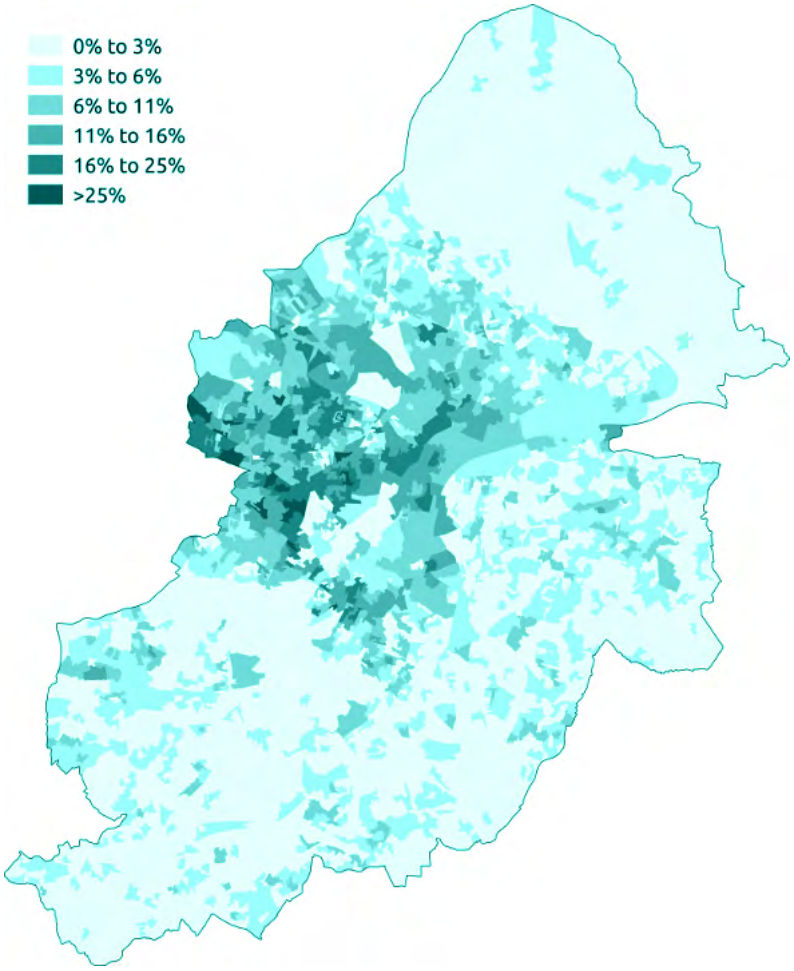
Table 2 shows the top six wards by populational numbers for Black Caribbean or Black British residents. The size wards with the highest number of Black Caribbean and Black Other in Birmingham are Soho and Jewellery Quarter, Handsworth Wood, Stockland Green, Perry Barr, and Ladywood. Furthermore, the highest proportion of Black Caribbean in regard to the percentage of the total population within the wards were Birchfield (15.58%), Holyhead (15.02%) Newtown (14.24%) Soho and Jewellery Quarter (13.86%), and Handsworth (11.18%). For Black Other, the highest proportions were in Newtown (8.8%), Nechells (7.26%), Soho and Jewellery Quarter (4.75%), Birchfield (4.02%), and Holyhead (3.80%). Figure 4 expands upon this and provides a visual heat map of the populational placement in Birmingham.

Table 2: Highest proportion of Birmingham Wards with a Black Caribbean or Black Other population.

		Black Caribbean or Black Other	
Top 6 Wards	**All people**	**Caribbean**	**Black Other**
Birchfield	11,465	1,787 (15.58%)	460 (4.02%)
Handsworth	11,733	1,312 (11.18%)	405 (3.45%)
Holyhead	11,133	1,673 (15.02%)	424 (3.80%)
Nechells	13,980	1,310 (9.37%)	1,016 (7.26%)
Newtown	12,485	1,778 (14.24%)	1,099 (8.8%)
Soho & Jewellery Quarter	22,606	3,134 (13.86%)	1,077 (4.76%)

Source: Office of National Statistics, 2011 Ethnic ward group by age, all people.

Figure 4: Black Caribbean population in Birmingham (2011 Census)



Source: 2011 Population Census in Birmingham City Council wards

1.3.3 Religion

The Black Caribbean population in Birmingham is overwhelmingly Christian. Of the 47,641 residents, 35,167 (73.8%) were Christian. Just 773 residents (1.6%) were Muslim. 6,028 residents (12.7%) had no religion. The Other Black population had a somewhat different profile. Of the 18,728 Birmingham residents, 46.1% were Christian, 30.2% were Muslim, and 12.1% had no religion.

Maternal mortality rates are substantially raised in the Black group, though lower amongst

BLACK CARIBBEANS 3% & BLACK AFRICANS 11%

There is some evidence that Black Caribbean women are less likely to be referred to secondary care for

POST-NATAL DEPRESSION

STILL-BIRTHS AND INFANT MORTALITY RATES

are amongst the highest in babies from the Black Caribbean and Other Black groups

22% of children living in Black households were living in low income and material deprivation, compared to **10% IN WHITE HOUSEHOLDS**

Black Caribbeans have amongst the highest prevalence of obesity of any ethnic groups in

AGED 4-5 16.5% **AGED 11-12 14.9%**

Amongst a cohort study of 2.4 million children, Black Caribbean children had the poorest uptake for influenza and rotavirus vaccinations, intermediate uptake for MMR, and next to the best uptake for meningitis vaccinations

2. Community Health Profiles

2.1 Getting the Best Start in Life

Getting the best start in life key findings:

- Maternal mortality rates are substantially raised in the Black group, though lower amongst Black Caribbeans (3%) than Black Africans (11%).
- Severe maternal morbidity is 80% higher amongst Black Caribbean women compared with White women.
- Being Black Caribbean or Black African is reported as being a risk factor for late antenatal booking.
- There is some evidence that Black Caribbean women are less likely to be referred to secondary care for post-natal depression.
- Still-births and infant mortality rates are amongst the highest in babies from the Black Caribbean and Other Black groups.
- These groups also have higher proportions of low-birthweight babies compared with the White group.
- Black Caribbeans were amongst several groups who self-reported significantly poorer post-natal care.

- Amongst a cohort study of 2.4 million children, Black Caribbean children had the poorest uptake for influenza and rotavirus vaccinations, intermediate uptake for measles, mumps and rubella (MMR), and next to the best uptake for meningitis vaccinations.
- Black Caribbean and any Other Black children aged 4-5 and 10-11 have amongst the highest prevalence of obesity.
- 22% of children living in Black households were living in low income and material deprivation, compared to 10% in White households.

This chapter includes the following topics: maternal health, live births, infant mortality, childhood vaccinations, childhood obesity, childhood poverty, children in care, school readiness, and school exclusions

2.1.1 Maternal health

Maternal morbidity, mortality, and initiation of antenatal care

In 2015-17, 209 women died (87 directly and 122 indirectly) during or up to six weeks after pregnancy, from causes associated with their pregnancy, among 2,280,451 women giving birth in the UK[5]. For Black Caribbean women the total number of deaths was 7, a frequency of 3% and substantially lower than for Black Africans (22, 11%). Of these 7 deaths, 3 were direct and 4 indirect deaths. With respect to region of birth of all women who died, 2% were born in Central and South America and Caribbean, although data was missing for 13%. Of women whose critical care was assessed, this was 15% for Black Africans/Caribbeans but 76% for White Europeans. Raleigh and Holmes[6] report that for the years 2016-18 the rate of women dying in the UK up to one year after pregnancy was 4 times higher in the Black groups. Nair *et al.*[7] report a similar picture for severe maternal morbidity in a national cohort of data collected by the UK Obstetric Surveillance System (UKOSS). Compared with White European women, the odds of severe maternal morbidity were 83% higher among Black African women and 80% higher amongst Black Caribbean women. These odds of severe maternal mortality did not differ by socio-economic status, between smokers and non-smokers, or by body mass index.

Being Black Caribbean or Black African is reported by a number of studies as being a risk factor for late antenatal booking. Amongst women attending a hospital NHS trust in London, Black Caribbean ethnicity (n=591) carried an unadjusted odds ratio compared with the White British group (=1.0) of 1.44 (CI 1.20-1.73) and adjusted OR of 1.33 (CI 1.09-1.61), lower than for the Black African group[8]. Among women who both spoke English and were born in the UK, the only ethnic group at increased risk of late booking were women who identified as African/Caribbean (adjusted OR: 1.40: 95% CI: 1.11, 1.76) relative to White British. Infants born to these African and Caribbean women identified as groups at risk of late booking are at particular risk of haemoglobin disorders, such as sickle cell anaemia.

2.1.2 The mental health of mothers

Although the number of Black Caribbean women was too small to be reported in the study of the mental health of mothers participating in the Millennium Cohort Study, there is a small literature on perinatal depression amongst Black Caribbean women. Edge *et al.*[9] investigated perinatal depression among Black Caribbean women (n=101) and White British women (n=200) accessing maternity services in Manchester in the last trimester of pregnancy and 6 weeks following delivery. Despite higher levels of self-reported risk, Black Caribbean women were less likely than White British women to score above threshold (on the Edinburgh Postnatal Depression Scale) during pregnancy (chi^2 = 4.16, d.f. = 1, P = 0.041). Further,

although equally likely to score above the threshold postnatally, they were less likely to receive treatment (chi2 = 4.20, d.f. = 1, P = 0.040) and more likely to be referred to secondary care (Fisher's Exact Test, P = 0.049). The study found important differences with respect to Black Caribbean women's beliefs about perinatal depression and their attitudes to help-seeking, including mistrust of the mental health services.

2.1.3 Live births, stillbirths, infant deaths

In 2019 the stillbirth rate (stillbirths per 1,000 live births and stillbirths) in England and Wales was 9.7 for 'Any other Black background' (ethnicity of birth). This was the highest of any ethnic group. Rates for this group had been high (around 7 to 8) from 2007 but increased markedly in 2019[10]. The stillbirth rate for Black Caribbean births in 2019 was 5.8. These rates had been high (around 7 or 8) since 2007 but fell to 5.7 in 2018. By contrast the White British rate in 2019 was 3.3 and had fallen from 4.3 in 2007. For the individual years 2007-19 the stillbirth rate in the West Midlands is only reported for the 'Black' group (6.6). In 2019 11.2% of Black Caribbean births were under 2,500 grams compared with 9.0% in the Any other Black group and 6.3% in the White British group.

A research study investigated inequalities in stillbirth rates by ethnicity using population-based perinatal mortality surveillance linked to national birth and death registration[11]. The UK population-based cohort comprised 4,391,569 singleton births at ≥24+0 weeks gestation between 2014 and 2019. Adjusted absolute differences in stillbirth rates (per 1000 total births) were higher for babies of Black African (3.83, 95% CI 3.35 to 4.32), Black Caribbean (3.60, 95% CI 2.65 to 4.55) and Pakistani (2.99, 95% CI 2.58 to 3.40) ethnicities compared with White ethnicities. Higher proportions of babies of Bangladeshi (42%), Black African (39%), other Black (39%) and Black Caribbean (37%) ethnicities were from most deprived areas, which were associated with an additional risk of 1.50 stillbirths per 1000 births (95% CI 1.32 to 1.67). More placental causes for stillbirth rates were found in Black ethnicities (range 1.97 to 2.24 per 1000 births). Improved strategies for investigation of stillbirth causes are needed to reduce unexplained deaths (which amount to over 40% in the population) so that interventions can be targeted to reduce stillbirths.

In 2019 the infant mortality rate (deaths per 1,000 live births) was 7.8 for Black Caribbean infants, the highest of all reported ethnic groups. This is a substantial rise from 4.9 in 2017. The second highest rate in 2019 was for the Other Black group, with an infant mortality rate of 6.9, substantially higher than 3.0 for White British. The rate in the West Midlands in 2019, only reported for the 'Black' group, was 7.4. In England there was little variability by IMD decile for the 'Black' group. The main cause of infant deaths in the Black Caribbean and Any other Black group was immaturity related conditions (the same as in the White group). The neonatal mortality rate in 2019 was 5.5 in the Black Caribbean group, the highest across all ethnic groups and just above that for the Any other Black background group (5.3). This compares with 2.3 in the White British group. There is little evidence of a sustained decline in the neonatal mortality rate over the period 2007-2019.

2.1.4 Birth and child-rearing practices

Henderson *et al.* (2013) use the findings of an NHS survey (n=24,319 women) to investigate Black Caribbean (amongst other groups') experiences of maternity care[12]. Black Caribbeans had less engagement with the health services, tending to start antenatal care later in pregnancy and have fewer antenatal checks and ultrasound scans. An upright position for labour is thought to facilitate delivery but this was less common in all minority ethnic groups, especially Black Caribbean and Black African women. Although almost all women felt that they were always spoken to in a way they could understand and sufficiently involved in decisions, communication was poorer for all minority ethnic groups, especially Pakistani, Bangladeshi and Black Caribbean women. Postnatal checks of their own health in the weeks after birth were also less likely for Bangladeshi, Pakistani and Black Caribbean women. Overall, ratings of postnatal care were not as positive as for antenatal or intrapartum care, and were significantly poorer among Bangladeshi, Pakistani, Indian, Black Caribbean and women of Other ethnicity. In some aspects of care (more likely to book late, have fewer ultrasound scans, an unplanned caesarean, be left alone and worried in labour and after the birth) Black Africans had a worse experience.

2.1.5 Child vaccinations

A cohort study undertaken using the QResearch database of individual level primary care data to assess disparities in vaccination uptake across ethnic groups among children aged below 18 years (n=2,447,875) reported the uptake of influenza, meningitis C and rotavirus, and measles, mumps and rubella (MMR) using maximally adjusted odds ratios (95% CI)[13]. Logistic regression models were used to estimate the odds ratios for 8 ethnic groups compared to those of White ethnicity. Variations in vaccination uptake were observed across the different ethnicities. For influenza (n=1,617,686), Black Caribbean children had the poorest uptake, OR: 0.49 (0.46- 0.51), the best uptake being the Chinese group (OR 1.27, 1.19- 1.35). For Rotavirus (n=497,524) Black Caribbean children again had the poorest uptake (OR 0.51, 0.45- 0.59). For MMR (n=1,679,356), the results were somewhat different. The OR for Black Caribbean children was 0.88 (0.79- 0.98), better than for Black African, Chinese and Other but worse than for the four South Asian groups. For Meningitis C (n=1,679,356), the uptake for Black Caribbean children was close to the best (OR 1.17,1.09- 1.26), only Bangladeshi children having a better uptake.

A systematic review of qualitative research addressing ethnicity-specific factors influencing childhood immunisation decisions among Black and Asian minority ethnic groups found that: factors that are related to ethnicity itself (namely religion, upbringing and migration, and language) affected parents' perceived importance of immunisations, whether immunisations were permitted or culturally acceptable and their understanding of immunisation/the immunisation schedule; and secondly, that perceived biological differences affected decision-making and demand for information.

2.1.6 Childhood obesity

In school year 2020-21 Black Caribbean pupils aged 4-5 years had the highest proportion overweight (16.4%) across all census ethnic groups[14]. The proportion was second highest in the 'Any other Black background' group. These rates compared with 14.0% in the White British group but 9.5% in the 'Asian' broad ethnic group. The prevalence of obesity (including severely obese) was second highest (across all ethnic groups) in the Any other Black background group (22.7%) and 17.5% in the Black Caribbean group, substantially higher than in the White British group (13.6%). The prevalence of severe obesity was highest across all ethnic groups in the Any other Black background group (9.2%), compared with 6.8% in the Black Caribbean group and 4.1% in the White British group. When overweight and obesity are combined, the second highest prevalence rate was in the Any other Black group (37.1%) and the third highest, Black Caribbean (33.9%), compared with 27.6% in the White British group.

For year 6 (aged 10-11 years) pupils, the highest proportion overweight across all census ethnic groups was Any other Black background (17.0%), with the percentage in the Black Caribbean group 14.9% (lower than in the White British group, 14.9%). The prevalence of obesity (including severely obese) was highest in the Any other Black background group, compared with 34.6% in the Black Caribbean group and 23.2% in the White British group. In the severely obese category, the highest proportion was in the Black Caribbean group, with Any other Black background second (10.6%). The proportion in the White British group was 5.5%. Finally, when overweight and obesity are combined, the Any other Black group had the highest proportion (54.8%) while the proportion for Black Caribbeans was 49.4%. The proportion for White British was 38.4%.

2.1.7 Childhood poverty

Statistics for childhood poverty are not available for Black Caribbeans as they are only reported for the 'Black' pan-ethnicity. There is a substantial body of evidence for childhood poverty in Asian and Black households. A report by ONS found that the Black (30%) high-level ethnic group had a higher percentage of children living in low-income households than the national average[15]. This may be partly explained by the fact that the Black group has an unemployment rate of 9%, higher than the national average (4%). In addition, amongst the high-level ethnic groups, the Black and Mixed ethnic groups were the most likely to have gross household income (the income that a household has available for spending after taxes and benefits are taken into account) of less than £400 per week. The percentage of children in Black households living in persistent low income (2013-17) was six percentage points higher than the percentage of children in White households living in persistent low income. 22% of children living in Black households were living in low income and material deprivation, compared to 10% in White households.

These inequalities have been long-lasting. Platt[16] investigated child poverty between 2002/03-04/05 to 2016/17 -18/19 (3-year rolling averages) using the AHC Poverty Rate (<60% of median equivalised household income after housing costs). Over the first decade of the new century, Black Caribbean rates were stable at around 40%, then fell, before steeply rising again.

Eligibility for free school meals (FSM) provides another indicator of childhood poverty. In January 2020 Black pupils were the most overrepresented group (in absolute terms) in the FSM population (that is, a higher proportion of Black pupils were eligible for FSM compared to their proportion of the general pupil population). Black pupils made up 9% of FSM pupils but only 6% of pupils overall[17]. This compares with White pupils who made up only 68% of pupils eligible for FSM but 73% of pupils overall. Data released by the London Assembly showed that 9% of Black, Asian, and minority ethnic Londoners used food banks in July 2020 compared with just 1% of White Londoners[18]. According to 2019 data on FSM, 24% of the Any other Black background pupil population was eligible compared with 15% of White British children[19].

One factor which may contribute to the Black groups having a higher percentage of children living in low-income households than the national average is the proportion of children in lone-parent families. This clearly impacts on the number of earners in the family. In 2019 in England and Wales 63% of Black Caribbean dependent children (aged 0-15) were in lone parent families. This was just above the 62% in the Other Black/African/Caribbean group. These rates were substantially the highest across the 16 census categories and well above the White British group (19%).

2.1.8 Children looked after and children in care

In 2021, 7 in 10 children in need were White and 3 in 10 were from all other ethnic groups combined. The proportion of children in need from all other ethnic groups combined has increased since 2015. In 2021 the number of children in need (defined as a child who is unlikely to reach or maintain a satisfactory level of health or development, or their health or development will be significantly impaired without the provision of children's social care services, or the child is disabled) in England for the reporting year 2021 was 29,530 Asian or Asian British, 32,640 Black or Black British, 33,750 Other ethnic group, and 264,900 White. Those with known ethnicity numbered 373,810. Data is available for detailed ethnic groups. 7,120 (1.9%) were Black Caribbean, 18,750 (5%) Black African, and 6770 (1.8%) Any other Black background[20]. The total number of 'Black African' children who were looked after varied from 2,980 (2018) to 2,880 (2021), 4% of all children looked after and higher than the Black Caribbean (2%) and Any other Black background groups (2%)[21]. Amongst unaccompanied asylum-seeking children, Black Africans numbered 1,080 in 2018 (24%), 1,470 in 2019 (29%), 1330 in 2020 (26%), and 960 in 2021 (24%). These proportions were all similar to the 'Any other Asian background' group, but lower than the proportions for Any other ethnic group.

2.1.9 School readiness

Readiness for school is one of Public Health England's Public Health outcomes Framework health equity indicators. It is defined as the number of children not achieving a good level of development at the end of reception (Early Years Foundation Stage) as a percentage of all eligible children (it is the inverse of the readiness for school indicator in the Public Health Outcomes Framework). Children from poorer backgrounds are more at risk of poorer development and the evidence shows that differences by social background emerge early in life. In 2015/16 there were wide inequalities between ethnic groups. However, the percentage not ready for school amongst 'Black Caribbeans', around 32%, was close to that for England as a whole and also the Any Other Black Background and Mixed: White and Black Caribbean groups[22].

Public Health England's 'fingertips' Public Health Profiles for 2018/19 provide more recent data[23]. With respect to 'percentage of children achieving a good level of development at the end of reception', the rate for Black children in England was 69.3%, compared with 72.7% for White children (figures were not released for local authorities).

2.1.10 School absences and exclusions

Data is available from the Ethnicity Facts and Figures website. In 2017/18 in England pupils from the Black Caribbean group had one of the highest rates of overall absence (5.0%) but close to the White British rate (4.9%). Black Caribbeans' rate of persistent absence was, again, one of the highest (13.3%), above the White British group (11.3%). Rates of overall absence and persistent absence for the 'Black' group in Birmingham were 4.0% and 9.4%, respectively.

Rates of temporary exclusions in England for the school year 2018 to 2019 were 10.37% for the Black Caribbean group, compared with 6.01% for the White British group. The rate for the 'Black' group in Birmingham was 6.35%. The rate of permanent exclusions for the Black African group was 0.25%, one of the highest, compared with 0.10% for the White British group. The rate for the 'Black' group in Birmingham was 0.19%.

RESEARCH STUDIES INDICATE THAT BLACK CARIBBEANS WERE MORE LIKELY TO BE REFERRED TO IAPT THROUGH SECONDARY CARE THAN THEIR GP

DETENTIONS UNDER THE MENTAL HEALTH ACT PER 100,000 PEOPLE WERE SIGNIFICANTLY RAISED FOR

275.8 BLACK CARIBBEAN & 810.5 BLACK OTHER compared with the White group (70.5)

SUBSTANTIALLY LOWER DRINKING LEVELS

AMONGST BLACK CARIBBEAN MEN AND WOMEN THAN IN THE GENERAL POPULATION WAS REPORTED IN THE 2004 HEALTH SURVEY FOR ENGLAND (AND ALSO LOWER FOR THE 'BLACK' GROUP IN THE 2014 HSE)

According to the 2013/14 British Crime Survey Black Caribbean men compared to Black Caribbean women had around

5x THE LAST YEAR DRUG USE RATE 16.5% 3.4%

SMOKING The most recent data (2012) indicates that around

28% BLACK CARIBBEAN MEN 15% BLACK CARIBBEAN WOMEN

ARE SMOKERS, ALTHOUGH RATES ARE LOWER IN THE NON-UK BORN

2.2 Mental Wellness and Balance

Mental Wellness and Balance Key Findings:

- The Black Caribbean and especially Black Other groups have high contract rate with mental health services and high hospitalisation rates
- Detentions under the Mental Health Act per 100,000 people were significantly raised for Black Caribbean (275.8) and Black Other (810.5) groups, compared with the White group (70.5).
- Rates of access (unadjusted) to psychological therapies (IAPT) were around 300 per 100,000 population for White British people but with higher rates for White & Black Caribbean group, Black Caribbean and Any other Black background (all around 1,700/100,000).
- Research studies indicate that Black Caribbeans were more likely to be referred to IAPT through secondary care than their GP.
- There is some indication that Black Caribbeans and other Black and minority ethnic groups having poorer recovery rates in talking therapy services than the White British group.
- Some research studies report that Black Caribbeans and other Black groups are less likely to have access to cognitive behavioural therapy (CBT).
- There is substantial evidence that Black Caribbean and Black African people have an increased risk of being treated for serious mental illness such as schizophrenia and mania. This is

of the order of 5-12 times greater than for White people and is said to be getting worse.

- In a the age-standardised incidence rate of psychosis (AESOP) in the UK was highest in the Black Caribbean group (140.8 per 100,000 persons/year), substantially above the White British rate (20.2).
- In a study (the CRIS-FEP study) undertaken a decade later, there was evidence that rates had fallen in the Black Caribbean group.
- A number of studies do seem to implicate migration as a factor contributing to increased risk for psychosis in the 'Black' group and other minority ethnic groups.
- Several studies have reported the views of the Black Caribbean and Black Other community of mental health services, including a lack of trust in healthcare professionals, consequent failure to seek help from mental health services, and recovery frameworks that failed to account for their distressing experiences of racism and discrimination.

Behavioural risk factors

- The most recent data (2012) indicates that around 28% of Black Caribbean men and 15% of Black Caribbean women are smokers, although rates are lower in the non-UK born.
- Smoking amongst women in early pregnancy is low in the 'Black' group and this group also has amongst the lowest rates of smokers amongst young people.
- The percentage of adults on the NHS stop smoking service who stopped smoking after four weeks was amongst the lowest in the Black Caribbean and Black Other groups and study findings also indicate the Black groups had the lowest access to stop smoking services.
- The 2004 Health Survey for England reported substantially lower drinking levels amongst Black Caribbean men and women than in the general population (and also lower for the 'Black' group in the 2014 HSE).
- In 2018 the proportion of pupils who drank alcohol in the last week was substantially lower amongst boys and girls than their White counterparts.
- In 2014 the percentage of men taking any illicit drug in the past year was highest for the 'Black/Black British' group (the main drug was cannabis) and this was also the case for women.
- According to the 2013/14 British Crime Survey Black Caribbean men had around five-times the last year drug use rate as Black Caribbean women (16.5% men, 3.4% women).

2.2.1 Mental health: contact with services, hospitalisation rates, and hospital stays subject to the Mental Health Act

The Mental Health Minimum Dataset provides comprehensive information on the number of people in contact with adult and older adult mental health services[24]. The Black Caribbean group had a relatively high contact rate with services[25]. In 2013-14 Black Caribbeans had a population-based contact rate of 4,535.7 per 100,000, compared with 9,914.7 in the Black Other group. The Black Caribbean rate was higher than that for Black Africans (3005.0 per 100,000) and for the White British group (3,514.4).

86.1% of the Black Caribbean group and 93.7% of the White British group in contact with services were not admitted to hospital, that is, people who were only in contact with community mental health services. This compares with 81.8% of Black African patients. Conversely, the Black Caribbean group had 13.9% spend time in hospital in that year, higher than for all people (6%), but not as high as for Other Black patients (16.2%) and Black Africans (18.2%). Similar findings were reported for the One Day Census, Count Me In, a survey carried out on March 31st each year for all Britain's psychiatric patients. The census for 2006 showed that of the 32,000 people in hospital, those who described themselves as Black Caribbean and Black African were over-represented by three- or fourfold, while Black British (mainly young, British-born Black people) were 18 times more likely to be in hospital than the general population.

47.1% of hospital stays in the year in the Black Caribbean group were subject to the Mental Health Act, 48.8% in the Other Black group, and 32.5% in the White British group. In 2019/20, according to the Mental Health Services Data Set, detentions under the Mental Health Act per 100,000 people (standardised rates) were the third highest for Black Africans (232.3), Black Caribbeans (275.8) and the Black Other group (810.5) having higher rates. These rates compare with 70.5 in the White British group. Also, all the Asian groups had lower rates than the Black African group.

2.2.2 Prevalence of different mental disorders in 'Black' men and women

There are few comprehensive sources of data on the prevalence of different mental disorders. Most wide-ranging is the Adult Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2014[26] which is a household survey and now 8 years out of date. Moreover, it only reports for the Asian, Black, Mixed/Other, White British, and White Other ethnic groups. The percentage of people aged 16 years and over screening positive for bipolar disorder was the second highest for men (2.9%) and highest for women (4.0%) in the Black group, compared with 2.3% and 1.8%, respectively, in the White group. In 2014, there were no meaningful differences between ethnic groups in the percentage of men who had experienced a common mental disorder (like anxiety, depression or obsessive-compulsive disorder) in the week before they were surveyed. The percentage for Black men was 13.5%, the same as for White British men. 29.3% of Black women had experienced a common mental disorder in the past week, a higher rate than for women from White British (20.9%) and White Other (15.6%) ethnic groups.

The percentage of people aged 16 years and over who screened positive for attention deficit hyperactivity disorder (ADHD) in the past 6 months was 4.8% for Black men (only the White Other group had a lower rate), the proportion for White British men being 11.0%. For Black women, the proportion was 19.3%, the highest and substantially above the White British rate of 9.4%. The percentage of Black men aged 16 years and over who screened positive for personality disorder was 16.1% in Black men, higher than the White British group (13.0%) but lower than for the Asian group (22.7%). The proportion for Black women was 17.7%, the second highest and above the White British group (14.9%). The percentage of Black men aged 16 years and over who screened positive for a psychotic disorder in the past year was 3.2%, higher than for White men (0.3%). The proportion for Black African women was 0.0%, compared with 0.7% in

White women. The percentage of Black men aged 16 years and over who screened positive for attention deficit hyperactivity disorder (ADHD in the month prior to the survey was 5.1%, above the White British group (3.5%). The proportion for Black women, 10.9%, was the highest of the five ethnic groups, and above that for White British (4.9%). The percentage of Black people aged 16 years and over who had suicidal thoughts, attempted suicide or self-harmed was 20.7%, 6.1%, and 4.8%, were all lower than for White British people.

2.2.3 Treatment types and outcomes

There is only limited data on the use of the Improving Access to Psychological Therapies (IAPT) service by ethnic group. The report from the Health and Social Care Information Centre[27] showed that rates of access to IAPT in England were around 300 per 100,000 population for White British people but with higher rates for White & Black Caribbean group, Black Caribbean and Any other Black background (all around 1,700/100,000), and any other Mixed background and any other background (over 2,500/100K). However, the rates were unadjusted for need, not broken down by age and sex, and ethnicity was missing for 30% of the people in the dataset.

A study by Harwood *et al.*[28] large study focusing on IAPT users in South London (n=85,800, using data collected 2013-2016) found that compared to the White British group, Black African (OR=0.67, CI=0.63–0.71), Asian (OR=0.65, CI=0.61–0.69) and Mixed ethnic groups (OR=0.80, CI=0.76–0.84) were less likely to self-refer to IAPT than be referred through their GP. The study also found that compared to the White British group, Asian (OR=1.24, CI=1.08–1.41) and Black Caribbean (OR=1.16, CI=1.01–1.33) groups were more likely to be referred to IAPT via secondary care than their GP. Black Caribbean (OR=1.92, CI=1.65– 2.24), Black African (OR=1.77, CI=1.43–2.19), Asian (OR=1.64, CI=1.38– 1.94), Black Other (OR=2.62, CI=2.03–3.38) and White Other (OR=1.85, CI=1.52–2.24) groups were more likely to be referred through community services (e.g., statutory services like Job Centre Plus, voluntary organisations, education providers and prison and probation services). Finally, following referral 'almost all racial and minority ethnic groups were less likely to receive an assessment compared to the White British group, and of those who were assessed, all racial and ethnic minority groups were less likely to be treated'.

Outcomes for treatment for anxiety and depression, derived from the Improving Access to Psychological Therapies (IAPT) dataset, for the financial year 2018-19 for England (Ethnicity Facts and Figures website) , provides data on the percentage of patients showing improvement, deterioration or no change following therapy across the 16 ethnic categories. The proportion of Black Caribbean patients 'reliably improved' was 66.4%, similar to the Black Other proportion (65.7%), but lower than for the White British group (68.1%). The proportion reliably deteriorated was 7.0%, higher than for Black Other (6.9%) and White British (5.5%). However, for Black Caribbeans the 'reliably improved' percentage had increased across the 4 years 2015/16 to 2018/19 from 60.8% to 66.4%, the proportion for women being 2% points higher than for men.

These findings raise issues of inequalities in access and referral to psychological (IAPT) and other therapies for Black and other minority ethnic groups, including method of referral (e.g., GP, self-referral), how Black and minority ethnic people experience IAPT pathways, and in treatment outcomes for those who use these services. The IAPT programme, launched in 2008, has resulted in a significant increase in access to psychological therapies, though with some Black and minority ethnic groups having poorer recovery rates in talking therapy services than White British groups. While some tools have been developed to help improve service design and delivery to improve access and outcomes for Black and minority ethnic service users, notably, The IAPT Black, Asian and Minority Ethnic Positive Practice Guide (2019)[29], the effectiveness in service delivery and impact have yet to be assessed.

There is also evidence of unequal access to cognitive behavioural therapy (CBT). Das-Munshi *et al.*'s[30] large UK-wide quantitative study of ethnic differences in access to pharmacological treatments, psychological interventions and shared decision making and care planning in people with a clinical diagnosis of schizophrenia or schizoaffective disorders, found that relative to the White British group, the Black (OR=0.74, 95% CI=0.63, 0.88) group was less likely to have ever been offered CBT. Morris RM, Sellwood W, Edge D, *et al.*[31] study of over 20,000 patients with bipolar disorder or psychosis in South London, found that relative to White British people, Black Caribbean people were less likely to receive a minimum of 16 sessions of CBT (OR 0.83, 95% CI 0.71 to 0.98, p=0.03) and both Black African and Black Caribbean people were significantly less likely to receive CBT whilst inpatients (respectively, OR 0.76, 95% CI 0.65 to 0.89, p=0.001; OR 0.83, 95% CI 0.73 to 0.94, p=0.003). Byrne *et al.*'s[32] study of people at ultra-high risk (UHR) of psychosis (aged 14 to 35) in London found some evidence that White British people attended more CBT sessions than Black people (Mann-Whitney U post hoc test, z=−2.20, p=0.03). Mercer *et al.*'[33]s study of South London and Maudsley NHS Trust patients receiving psychological therapy between 2010 and 2015 found that of those accessing psychological therapy, there were significantly fewer Black/ Black British patients ($p < .05$). For schizophrenia diagnoses, there were significantly fewer Black/ Black British and 'other ethnic group' patients accessing psychological therapy ($p < .05$), though the statistical analyses did not adjust for age, gender or diagnoses. Mind's[34] mixed methods study investigating access to talking therapies found that people from ethnic minority groups talked about therapists not taking account of how therapy interacted with their religion and spirituality and raised issues with language barriers due to lack of interpreters. A further study that reported on ethnic inequalities in outcomes of psychological treatment, Crawford *et al.*'s[35] large quantitative study (n=14,004) of England and Wales patient data, found that most ethnic minority groups were more likely to report negative effects of receiving psychological therapy (experiencing lasting bad effects of treatment), compared with the White group, e.g. Black OR=2.16, CI=1.27– 3.67.

With respect to outcomes more generally, the percentage of people aged 16 years and over receiving any treatment for mental or emotional problems, based on the Adult Psychiatric Morbidity Survey, 2014, was lowest in the Black group (6.5%), and substantially below that for the White-British group (14.5%). Thus, the Black group had the highest percentage (93.5%) across the ethnic groups who were receiving no treatment. With respect to treatment type, 5% of Black persons were receiving medication only, compared with 11.4% in the White British group. For counselling or therapy only, no proportion was reported for the Black group. For both medication and counselling, the proportion for the Black group was 1.5%, below the 1.7% for the White British group. Finally (from the Mental Health Services Dataset for the 2019/20 in England), the number of people per 100,000 using NHS mental health, learning disability and autism services was 5,098 in the Black group); this was lower than in the Mixed and Other groups but higher than for the White and Asian groups. Within the Black group, Black Africans (3,485 per 100,000) had a substantially lower rate than for Black Caribbeans, 5,099, and the Black Other group, 12,440.

2.2.4 Increased risks for psychosis

One of the most consistent findings for the mental health of Black groups is the elevated risks for psychosis. This was revealed in the MHMDS and affirmed by many research studies and other mental health datasets. McKenzie[36] has spoken of 'an epidemic of psychotic illness in those of African and Caribbean origin'. This has been reported with striking consistency, in over 20 studies over the last thirty years, showing that people of Caribbean and African origin have an increased risk of being treated for serious mental illness such as schizophrenia and mania. The increased risk is of the order of five to twelve times greater than for White

people and is said to be getting worse. Several sources have enabled researchers to assess the risks.

A longitudinal study undertaken amongst the general population in SE London, Nottingham, and Bristol during 1997-1999 - the AESOP (Aetiology and Ethnicity of Schizophrenia and Other Psychoses) - provides some of the most robust evidence[37]. This was then the largest population-based incidence study of psychosis at the time of reporting and incorporated a number of methodological improvements over previous studies. Amongst a study population of 1,029,802 people aged 16-64 years living in the three study areas (all with well-established, heterogeneous minority populations) 568 people were diagnosed with psychotic illness during the 1.6 million person-years of follow-up. The incidence of psychosis was higher in all British ethnic minority groups than in the White British group.

The age-standardised incidence rate of psychosis in the UK was highest in the African-Caribbean group (140.8 per 100,000 persons/year), followed by Black Africans (80.6). These rates were substantially above the White British rate (20.2). Moreover, incidence rates were markedly raised for all psychoses in both men and women amongst African-Caribbeans and Black Africans and across all three study sites. Schizophrenia and mania were highest in African-Caribbeans (schizophrenia incidence per 100,000 persons per year: 70.7 in African-Caribbeans vs 7.2 in White British; incidence rate ratio (IRR) 9.1, 95% CI 6.6 to 12.6; mania incidence per 100,000 persons per year: 15.5 in African-Caribbeans vs 2.2 in White British; IRR 8.0, 95% CI 4.3 to 14.8), and second highest in Black Africans (schizophrenia incidence per 100,000 persons per year: 40.3; IRR vs White British: 5.8, 95% CI 3.9 to 8.4; mania incidence per 100,000 persons per year: 12.3; IRR vs White British: 6.2, 95% CI 3.1 to 12.1). These rates were amongst the highest ever reported for migrant groups.

These variations by ethnicity have persisted in some groups. Oduola *et al.*[38] investigated changes in incidence rates of psychosis in different ethnic groups in south London using findings from the Clinical Record Interactive Search-First Episode Psychosis (CRIS-FEP). They then compared these findings with those they reported in the AESOP study that they carried out in the same catchment area a decade earlier. From 9,109 clinical records they identified 558 patients with first episode psychosis. Compared with the AESOP study, the overall incidence rates of psychotic disorder in SE London had increased from 49.4 (95% confidence interval (CI) 43.6–55.3) to 63.1 (95% CI 57.3–69.0) per 100 000 person-years at risk. The increase in incidence rate ratios (IRR) was not seen across all groups. For example, the IRR (95% CI) for the Black Caribbean group reduced from 6.7 (5.4–8.3) to 2.8 (2.1–3.6) and the 'mixed' group from 2.7 (1.8–4.2) to 1.4 (0.9–2.1). In the Black African group, there was a negligible difference from 4.1 (3.2–5.3) to 3.5 (2.8–4.5).

In a longitudinal record linkage study in Scotland (Scottish Health and Ethnicity Linkage Study (SHELS)[39], 'African origin' women had higher risk of any psychiatric disorder (139.4, 95% CI: 119.0-163.2). 'African origin' men and women had the highest risk for psychotic disorders (230.8, 95% CI: 177.8-299.5 and 240.7, 95% CI: 163.8-353.9) and were also overrepresented in Short-Term Detentions (214.3, 95% CI: 122.4-375.0) and Compulsory Treatment Orders (486.6, 95% CI: 231.9-1021.1). However, due to small numbers, the investigators amalgamated the ethnic categories of African, Caribbean and Black Scottish and Other Black groups as an 'African Origin' group, referred to as 'African' for short. Thus, the specific experiences of Black Africans are subsumed in the experiences of a collective 'Black' group.

While the causes for the increased amount of serious mental illness remain largely unexplained and are widely contested, migrants appear more likely to develop mental illness, especially Black migrants to White countries, and in the children of such migrants. By comparison the rate of mental illness

in the Caribbean and African countries is not high. Cantor-Graae[40, 41] has noted that studies from the European continent have reported similar findings for other migrant groups but concludes that 'the extent to which the migrant "effect" in African-Caribbeans may be extended to all ethnic minority groups in the UK and to other types of psychoses remains unclear'. However, findings of more modestly raised incidence rates for all psychoses in the other minority ethnic groups does seem to implicate migration as a factor contributing to increased risk for psychosis. These findings indicate an urgent need for adequate prevention and treatment services that target these high-risk groups, especially Black Caribbeans and Black Africans.

2.2.5 Suicide rates

There were differences in suicide rates by gender in the Black Caribbean group (ONS 2021). ONS has published data on age-standardised suicide rates (ASMR) per 100,000 by ethnic group, by age (10 years and above) and sex, for deaths registered in England and Wales between 2017-2019 (ONS 2021). These rates for suicide were 3rd highest (ASMR 10.0, 7.7-12.7) for Black Caribbean males, after White, mixed/multiple ethnic groups, and Black Other. Black Caribbean females had an ASMR of 3.3 (2.2-4.7), in the range 7.1 (Mixed) - 1.3 (Pakistani), and 4.7 for all females.

2.2.6 The views of the Black Caribbean and Black Other community of mental health services

Several studies reported by the NHS Race and Health Observatory[42] report a lack of trust in healthcare professionals and consequent failure to seek help from mental health services. Using qualitative interviews Bailey and Tribe[43] found this to be the case for older (aged 65 to 79 years) Black Caribbean people living in the UK (though with a sample size of only n=8). Many participants in Kalathil *et al.*[44] qualitative study with women (n=27) of Black British, Black African, Black Caribbean, and Asian ethnicities felt that mental health services and recovery frameworks failed to account for their distressing experiences of racism and discrimination. Shefer, Rose *et al.*'s 2013[45] study of Black African, Black Caribbean, Indian, people (n=103) living in London found participants were critical of the psychiatric system and psychiatric staff, patients feeling that psychiatrists disregarded their concerns about the side effects of psychiatric medications.

Sisley *et al.*'s[46] study of Black Caribbean women living in London reported that GP help for mental health problems was thought to be limited, lacking knowledge of a local non-NHS Black Caribbean and African service to lack of knowledge about these services. These women also found that mental health professionals could be patronising and judgemental, discouraging help-seeking. Islam *et al.*'s[47] study of Black African, Black Caribbean, and South Asian people (n=22) (current or past Early Intervention Service (EIS) users), found a failure by GPs to listen to and address their participants' mental health concerns. Finally, Kapadia *et al.*'s[48] quantitative analysis of survey data (n=2,260) of ethnic inequality in women's usage of mental health services in England (defined as seeing a GP for mental health problems or seeing a counsellor or psychologist), showed that Pakistani (Odds Ratio (OR)=0.23 (Confidence Interval (CI)=0.08–0.65) and Bangladeshi (OR= 0.25 (CI=0.07–0.86)) women were less likely to use mental health services compared with White women. There was no evidence of differences in usage between White women and White Irish, Black Caribbean or Indian women.

2.2.7 Smoking

Smoking is a risk factor for several diseases including chronic obstructive pulmonary disease (COPD), heart disease and many cancers and a major cause of preventable morbidity and premature mortality.

Prevalence rates for self-reported cigarette smoking in Black Caribbean men (Any other Black background was not reported) have been moderately high across ethnicities but have been declining over the last two decades. According to the 2004 Health Survey for England 25% of Black Caribbean men were current cigarette smokers, similar to the general population (24%). Amongst Black Caribbean women, 24% were current cigarette smokers, compared with 23% of women in the general population. These rates are in broad accord with those estimated from the General Household Survey pooled data for 2001-2005 for Great Britain, in which rates for Black Caribbean men and women were reported as 31% and 19%, respectively. Rates for Other Black men were 19% and for Black Other women 16%. Similarly, Karlsen *et al.*[49] calculated rates for pooled Health Survey for England data for the years 2006-8. 37% of Black Caribbean were current cigarette smokers and 22% of Black Caribbean women (no data was reported for the Any other Black group). Bangladeshi and Black Caribbean men report higher current smoking rates than other men, while White and Black Caribbean women smoke more frequently than other women. Deprivation explains differences in current smoking rates between Bangladeshi and Black Caribbean, and White English men. The smoking rates of Black Caribbean women were significantly lower than those of White English people after adjusting for socio-economic status. The smoking rates of Black Caribbean men and women were reported to be particularly stable.

A more recent analysis[50] used the GP Patient Survey and Integrated Household Survey to provide estimates. According to the GP Patient Survey for 2012, 28% of Black Caribbean men were regular or occasional smokers compared with 15% of Black Caribbean women. Analysis of the Integrated Household Survey for England and Wales, pooled for the years 2009/10-2011/12, showed that Black Caribbean men born outside the UK had lower smoking rates than the UK-born (21.0% vs 29.6%), a prevalence ratio (UK born: non-UK born) of 1.41 (95% CI 1.24-1.60). The difference was even larger for Black Caribbean females: 7.2% of the non-UK born were current cigarette smokers compared with 23.7% of the UK-born, a prevalence ratio of 3.28 (27.3-3.94). There is some evidence of a social class (NS-SEC) gradient in smoking prevalence for Black Caribbean men but none for Black Caribbean women.

One of the drawbacks of routinely reported data for cigarette smoking by ethnic group is that such reporting uses the five pan-ethnicities (White, Mixed, Asian, Black, Other) rather than the granular census categories. The Race Disparity Audit reports such data for all adults by the 5 pan-ethnicities (plus Chinese) for England, 2019. Given the marked differences by gender and granular ethnic group, such data has little value for policy makers. Similarly, ONS's report and reference data for 2019 for the UK is for the pan-ethnicities (plus Chinese), but at least these data are broken down by gender (ONS 2020).

A few population groups merit particular attention, notably, pregnant women and children. Smoking amongst women in early pregnancy in England in 2019 varied from 15.2% in the White group to 12.7% (Mixed), 4.1% (Black), and 1.7% (Asian). Experimental analysis of smoking data from the Maternity Services Data Set (MSDS) for 2018-19 confirms these findings. 2.8% (CI 2.6-3.1) of the Black group were smokers at booking, second lowest across the five pan-ethnicities, while White mothers had the highest rate (11.5%, 11.4-11.6).

There are several sources of data on smoking prevalence by ethnic group for children. The 2004 Health Survey for England reported that in the general population 18% of boys and 19% of girls aged between 8 and 15

had ever smoked. The proportions in the Black Caribbean group were lower (16% and 17%, respectively). Data on smoking and other tobacco use are reported for broad ethnic groups from the What about YOUth (WAY) 2014 survey of 15-year olds[51]. 17% among the Black group were found to have ever smoked, substantially fewer than young people reporting a Mixed ethnic background (29%) and a White ethnic background (26%). Regular smokers made up 5% of the Mixed group and 6% of the White group, compared to just 1% among the Asian and Black groups. The Survey of Smoking, Drinking and Drug Use among Young People in England reports the proportions of pupils who have ever smoked by ethnicity and sex: in 2018 the 'Black' group had amongst the lowest rates, 10% for boys and 8% for girls, across the five pan-ethnicities[52].

There is limited data on interventions to address smoking and their outcomes by ethnic group. The Nuffield Trust[53] published data on the variation in quit rates by ethnicity and gender. The percentage of adults on the NHS stop smoking service who quit smoking after 4 weeks was 46% in Black Caribbean adults and 43.4% in Any other Black background group adults: only two of 16 census ethnic groups were lower. The percentage of males was 45.5% for both Black Caribbeans and Any other Black background and 46.5% for Black Caribbean females and 40.3% for Any other Black background, amongst the lowest across all ethnic groups.

A robust analysis for London, based on pooled individual records (n=124,122) from PCT-level stop smoking services for 2005-6 and 2006-7, found that the Black groups had the lowest access to the stop smoking services. The ethnic group significantly less likely to quit smoking at 4 weeks was the Black ethnic groups (African, Caribbean, Mixed White and Black African) along with the Pakistani ethnic group[54, 55]. The quit rate analysis showed they have significantly lower quit rates (44.5%) compared to other groups (50.1%) (c2 233.1 df2 p<0.001). Pregnant women in the Mixed ethnic group were the only ethnic group significantly more likely (62%) to quit at 4 weeks than all other ethnic groups (48%) (c2 8.4 df2 p<0.05) and pregnant women in the Other ethnic group are the only ethnic group significantly less likely to quit (32%) compared to all other ethnic groups (49%) (c2 7.8 df2 p<0.05). The proportion for the Black group was 50%. All broad ethnic groups are more likely to quit if they have received NRT and/or Bupropion/Zyban according to the data for London. The use of NRT and Bupropion/Zyban had the highest quit success and the younger age groups, in particular the under 18-year olds, with the lowest access and lowest quit success were also the group with the highest proportion of clients using no treatment.

2.2.8 Alcohol use

Apart from the Irish, the consumption of alcohol is low amongst minority ethnic groups, especially the South Asian groups. The 2004 Health Survey for England asked about usual drinking frequency amongst respondents aged 16 and over, reporting data for fine-grained categories including Black Caribbean'. 28% of Black Caribbean men reported drinking alcohol on 3 or more days a week, substantially lower than the general population (41%). 15% of Black Caribbean men were non-drinkers, compared with 8% in the general population. 11% of Black Caribbean women reported drinking alcohol on 3 or more days a week, compared with 26% in the general population. 21% of Black Caribbean women were non-drinkers, compared with 14% in the general population.

Male past week drinkers in all minority ethnic groups except the Irish were less likely than those in the general population to exceed 4 (then the government recommendation on daily drinking amounts) and 8 units (then, those who had been binge drinking) on their heaviest drinking day in the past week.

Black Caribbean men on their heaviest drinking day consumed 4 or more units (28%) and 8 or more units (12%), less than the general population (45% and 25%, respectively). Among past week drinkers, Irish women were the most likely to drink more than 3 units (53%), the government recommended limit, or 6 (23%) units, that is, binge drinking, on their heaviest drinking day, and were the only group more likely than the general population to exceed these levels. The respective percentages for Black Caribbean women (18% and 6%) were lower than for the general population (30% and 14%).

The 2014 Health Survey for England (using pooled data for the 2012, 2013, and 2014 HSE)[56] reported - but only for pan-ethnic groups - that the proportion of adults who did not drink alcohol varied across these pan-ethnicities. 55% of Asian men and 41% of Black men did not drink alcohol, compared with 9% of White men. Similarly, 74% of Asian women and 38% of Black women did not drink alcohol, compared with 15% of White women. The proportion of White men who drank more than 21 units a week was higher than the proportions of men in other groups: 25%, compared with 6% of Black men and 6% of Asian men. This was also true for women who drank more than 14 units a week: 18% of White women, compared with 6% of Black women and 2% of Asian women.

Sources on the use of alcohol by children/young people of different ethnicities is limited. In the 2004 Health Survey for England, in the general population, 45% of boys and 40% of girls aged between 8 and 15 said that they had ever had a whole proper alcohol drink. The proportions were lower in the Black Caribbean group (38% and 35%, respectively). In NHS Digital's data on the proportion of pupils who drank alcohol in the last week by ethnicity and sex, in England, 2018, the 4% for Black boys was less than the 12% for White and 6% for Mixed boys but higher than the 1% for Asian and Other boys[57]. Similarly, the 3% for Black girls was lower than the 13% for White, 7% for Mixed, and 7% for Other girls, but higher than the 1% for Asian girls.

2.2.9 Illicit drug use

The 2014 Adult Psychiatric Morbidity Survey reported illicit drug use in the past year (age-standardised) by ethnic group and sex for 2014[58], but only at pan-ethnicity level. The percentage of men taking any illicit drug in the past year was highest for the 'Black/Black British' group (14.3%) (the main drug for this pan-ethnicity was cannabis). This compared with 5.9% in the Asian/Asian British group to 11.8% in the White British group and 11.7% in the White Other group. The percentage of women taking any illicit drug in the past year was highest for the 'Black/Black British' group (9.7%) (again, cannabis was the main drug). By comparison, the proportion was 0.4% in the Asian/Asian British group and 6.2% and 6.9% in the White British and White Other groups, respectively.

According to findings from the 2013/14 Crime Survey for England and Wales[59], within Black or Black British backgrounds, adults from a Black-Caribbean background had higher levels of cannabis and any drug use in the last year (8.0% and 8.9% respectively) than adults with a Black African background (2.8% and 3.9% respectively). 'Black or Black British' men had around three times the level of last year drug use as women from the same ethnic background (9.0% men, 3.2% women) and in particular Black Caribbean men had around five-times the last year drug use as Black Caribbean women (16.5% men, 3.4% women).

Pupils who have taken drugs in the last year, by broad ethnic group[60] showed that Asian pupils were less likely than other ethnic groups to have taken drugs (13%), compared to 23% of mixed ethnicity pupils, 18% of Black pupils, and 17% of White pupils.

Several research studies have focused on illicit drug use in pupils from minority ethnic groups, including those of Caribbean descent. A cross-sectional questionnaire survey was used to assess 2789 male and female pupils aged 11–14 years old, from a representative sample of 28 secondary schools in East London[61]. Compared with White British adolescents,

cannabis use in the previous month was significantly higher amongst Black Caribbean adolescents. Lifetime cannabis use was significantly higher amongst Black Caribbean and mixed ethnicity young people, but was lower amongst Bangladeshi, Indian and Pakistani adolescents. Living in UK for 5 years or less markedly reduced the risk of lifetime and recent cannabis use when controlled for ethnicity and social class. According to another research study Black-British born individuals are particularly at risk with respect to cannabis use. Afuwape *et al.*[62] found in a community cohort of dually diagnosed (psychosis and co-occurring substance misuse) individuals Black British-born individuals were more likely to misuse cannabis than the White group and to have been compulsorily hospitalized or reportedly involved in violence over an 18-month period.

2.2.10 Blood pressure and hypertension

In the 2004 Health Survey for England mean systolic blood pressure (SBP) was higher among men (131.4 mmHg) than women (125.9) in the general population and in each minority ethnic group. Amongst men, mean SBP was highest among Black Caribbean (133.3) and Irish (131.5) respondents and men in the general population and lowest in Bangladeshi men (121.0). SBP in Black African men (128.0) was lower than for Black Caribbeans. Women in the general population had the highest mean SBP (125.9 mmHg), Black Caribbean (123.0) and Irish women (124.6) having the highest SBP amongst minority ethnic groups. Black African women (118.1) had lower SBP, along with South Asian (116.4-119.2) and Chinese women (115.1).

Mean diastolic blood pressure (DBP) was higher in Black Caribbean informants (74.7 mmHg in men and 73.7 mmHg in women) than the other minority ethnic groups and the general population (74.3 and 73.2 in men and women, respectively). Black African men had a mean DBP (73.5) below that of the general population and the lowest amongst minority ethnic groups. Among women, Black Africans had a mean DBP of 72.8, only the Chinese having a lower mean DBP (70.0).

With respect to detection and treatment of high blood pressure (hypertension), hypertension is defined as having raised blood pressure (SBP≥140mmHg or DBP≥90mmHg) or on medication to treat hypertension. Participants were considered hypertensive if their systolic blood pressure was 140 mmHg or over, their diastolic blood pressure was 90 mmHg or over, or they were taking medicine prescribed for high blood pressure. Four levels were used in the HSE 2004 report: Normotensive-untreated (SBP <140mmHg and DBP <90mmHg and not taking medicine prescribed for high blood pressure; and 3 hypertension levels (Hypertensive-controlled: SBP <140mmHg and DBP <90mmHg and taking medicine prescribed for high blood pressure; Hypertensive-uncontrolled: SBP ≥140mmHg or DBP ≥90mmHg and taking medicine prescribed for high blood pressure; and Hypertensive-untreated: SBP ≥140mmHg or DBP ≥90mmHg and not taking medicine prescribed for high blood pressure).

Black Caribbean informants had the highest prevalence of hypertension (38% men, 32% women), followed by the Irish (36% hypertension, 29% women) and similar to the general population (32% men, 29% women). Black Africans were somewhat lower than these groups (25% men, 19% women) but above the South Asian and Chinese groups. The HSE also reported the proportion of informants who had BP ≥ 160/100 mmHg but were not on drug treatment for hypertension. 5% of men within the general population had untreated BP ≥160/100 mmHg. The proportion of men in minority ethnic groups with untreated BP ≥160/100 mmHg ranged from 1% of Bangladeshis to 5% of Irish men, the proportion amongst Black Africans being 4%, none of these differences being statistically significant.

The proportion of women in the general population with untreated BP ≥160/100 mmHg was also 5%. Amongst minority ethnic women the prevalence of hypertensive untreated (≥160/100 mmHg) participants was highest for Black Africans (4%) and lowest amongst Black Caribbean and Chinese women, though none of the differences found between the minority ethnic groups and the general population was statistically significant.

While some studies indicate that individuals of African descent having higher odds of hypertension than people of European descent, differences in blood pressure measurement techniques and in sex, age and BMI may be acting as confounders. A meta-analysis[63] grouping a total of 23 European studies (including 18 from the UK) found that men and women from Sub Saharan African descent presented higher values of systolic and diastolic blood pressure than those from European descent.

56% OF MEN IN THE GENERAL POPULATION REPORTED

USE OF SALT IN COOKING

This proportion was higher - with the exception of Irish men - among men in minority ethnic groups

77% AMONG BLACK CARIBBEAN MEN

MEN ARE EQUAL BUT BLACK CARIBBEAN WOMEN ARE MORE LIKELY

OVERWEIGHT OR OBESE

Black Caribbean	General population
67%	67%
64.5%	57%

FOODBANKS

THE 'BLACK' POPULATION ARE OVER-REPRESENTED

in the use of Trussell Trust foodbanks in London pre-COVID-19 pandemic and during lockdown nationally

5-A-DAY

In 2004 significantly higher proportions of Black Caribbean men and women consumed 5 or more portions of fruit and vegetables a day than their White counterparts. By 2017/18 in England the proportions eating 'five a day' had improved across all pan-ethnicities, though the minority ethnic groups now had a less satisfactory relative position compared with the White group

A BOLDER HEALTHIER BIRMINGHAM

2.3 Healthy and Affordable Food

Healthy and Affordable Food Key Findings:

- In 2004 significantly higher proportions of Black Caribbean men and women consumed 5 or more portions of fruit and vegetables a day than their White counterparts.
- By 2017/18 in England the proportions eating 'five a day' had improved across all pan-ethnicities, though the minority ethnic groups now had a less satisfactory relative position compared with the White group.
- A 2019 study found Black Caribbeans (3.03 servings) were significantly less likely to eat fruits and vegetables than White British (3.36). First generation Black Caribbeans were found to eat 3.19 servings of fruit or vegetables compared with 2.90 in the second generation (these differences were not significant).
- In 2019/20 the 'Black' group (67.5%) had the highest proportion of adults who were overweight or obese across seven ethnic groups and above that for the 'Asian' group (59.7%).
- In 2004 the prevalence of overweight including obesity (BMI over 25 kg/m2) was 67% among men and 57% among women in the general population; Black Caribbean men had the same proportion in this category but among Black Caribbean women, the prevalence (64.5%) was higher than the general population.
- The 'Black' population are over-represented in the use of Trussell Trust foodbanks in London pre-COVID 19 pandemic and during lockdown nationally.

This chapter covers eating habits, overweight/obesity, and food poverty and insecurity in Black Caribbeans.

2.3.1 Eating habits

The 2004 Health Survey for England provides the most comprehensive analysis of eating habits by ethnic group. The recommended guidelines of consuming five or more portions of fruit and vegetables a day were met by 23% of men in the general population, the proportion of men meeting the guidelines being significantly higher among all minority ethnic groups (with the exception of Irish men). 32% of Black Caribbean men met the five-a-day recommendation, similar to Black African men (31%), with somewhat higher rates in the Indian and Chinese groups. Similar patterns were found in the mean number of portions consumed. In the general population, a significantly higher proportion of women (27%) met the five-a-day recommendation. Amongst Black Caribbean women 31% met the recommendation, slightly higher than Black African women (32%), though exceeded by Chinese and Indian women (42% and 36% respectively).

The mean fat intake score amongst men in the general population was 24 but lower in men in minority ethnic groups, Black Caribbean men having a score of 21 (only Indian and Chinese men having a lower score). Mean fat score was also lower among women in minority ethnic groups than those in the general population (21): 17 among Indian respondents, 18 among Black Caribbeans, and around 20 among Black Africans, Irish and Pakistani women.

56% of men in the general population reported use of salt in cooking. This proportion was higher - with the exception of Irish men - among men in minority ethnic groups (77% among Black Caribbean men to around 93% amongst South Asian men). A similar pattern of salt use in cooking was observed for women. The prevalence of salt use in cooking was also higher for women in minority ethnic groups (with the exception of Irish women), within a range from 69% among Black Caribbean women to 92% among Indian women, than those in the general population (53%).

By 2017/18 in England the proportions eating 'five a day' had improved across all pan-ethnicities, though the minority ethnic groups now had a less satisfactory relative position compared with the White group[64, 65]. The proportion of people aged 16 years and over eating recommended portions of fruit or vegetables per day was found to be lower in ethnic minority groups than in White groups The percentage of people who eat '5 a day' was highest in the White Other (54.5%), Other (54.7%), and White British (55.9%) groups, with the lowest proportion in the 'Black' group (data only for the pan-ethnicity was available) (44.2%). Falling between this range was Asian (47%), Chinese (50.3%), and Mixed (50.7%). For all ethnic groups the percentages had declined since 2015/16.

2.3.2 Overweight/Obesity

Sources of data on overweight/obesity in Black Caribbean adults is sparse. The Active Lives Adult Survey for England (for the years 2015/16 to 2019/20) provides information on the percentage of adults who were overweight or obese but only for the 'Black' pan-ethnicity. In 2019/20 the 'Black' group (67.5%) had the highest proportion across seven ethnic groups and above that for the 'Asian' group (59.7%). The White British group (63.7%) had the second highest proportion. Over the period 2015/16 to 2019/20 rates reached 72.8% in the 'Black' group in 2015/16 and 2017/18.

The Health Survey for England, 2004, provides the most comprehensive information on overweight/obesity, enabling a breakdown by gender and census granular ethnic group category. The mean body mass index (BMI, a measure that considers weight and height, calculated as weight [kg] divided by squared height [m2]) of men and women in the general population was 27.1 kg/m2 and 26.8 kg/m2 respectively. Black Caribbean men had a mean BMI the same as that of men in the general population. However, mean BMI was higher among Black Caribbean (28.0 kg/m2) women. Black Caribbean women had the second highest mean BMI amongst all minority ethnic groups (after Black Africans).

23% of men and women in the general population were obese (a BMI over 30 kg/m2). Men from minority ethnic groups had markedly lower obesity prevalence rates than those in the general population, with the exception of Black Caribbean and Irish men (both 25%). Black African men had a substantially lower proportion (17.1%). Amongst women, obesity prevalence was high in the Black Caribbean (32%) group, though not as high as for Black Africans (38%). The difference in prevalence of obesity between men and women in Black Caribbeans was 7 percentage points but in Black Africans women's prevalence was higher than that in men by over 20 percentage points.

The prevalence of overweight including obesity (BMI over 25 kg/m2) was 67% among men and 57% among women in the general population. Black Caribbean men had the same proportion overweight (including obesity) as the general population. Among women, the prevalence of overweight, including obesity, was higher than the general population in the Black Caribbean (64.5%) group but not as high as for Black Africans (69.8%) (the highest amongst all the groups). The other minority ethnic groups had lower rates than the general population.

Waist-hip ratio (WHR) is defined as waist circumference divided by hip circumference, i.e. waist girth (m)/hip girth (m). Among the general population, the mean waist to hip ratio (WHR) was 0.92 in men and 0.82 in women. Amongst men mean WHR was relatively low in Black Caribbean men (0.90), the highest rate being in Irish men (0.93). There was less variation among women, mean values ranged from 0.81 (Black African and Chinese) to 0.85 (Bangladeshi women), Black Caribbean men being intermediate (0.83).

Mean waist circumference was 96.5 cm for men and 86.4 cm for women in the general population. Mean waist circumference was 92.5 cm for Black Caribbean men, an intermediate position in the range 86.8 cm to 97.3 cm. Amongst women mean waist circumference ranged from 77.6 cm to 90.2, Black Caribbean women (88.4 cm) being higher than the general population rate.

33% of men and 30% of women in the general population had raised waist to hip ratio (WHR) (defined as 0.95 or more for men and 0.85 or more in women). The rate for Black Caribbean men was 25%, higher than the 16% in Black African men but lower than the highest proportion among Pakistanis (37%). Amongst women, 37% of Black Caribbeans had a raised waist to hip ratio, higher than in the general population (30%).

The prevalence of raised waist circumference (102 cm or more in men, and 88 cm or more in women) was 31% in men and 41% in women in the general population. 22% of Black Caribbean men had raised waist circumference, the lowest rates being recorded among Chinese (8%) and the highest among Irish men (33%). Prevalence ranged from 16% among Chinese women to 53% among Black African women, the rate for Black Caribbean women being 47%.

2.3.3 Generational differences amongst Black Caribbeans in dietary style

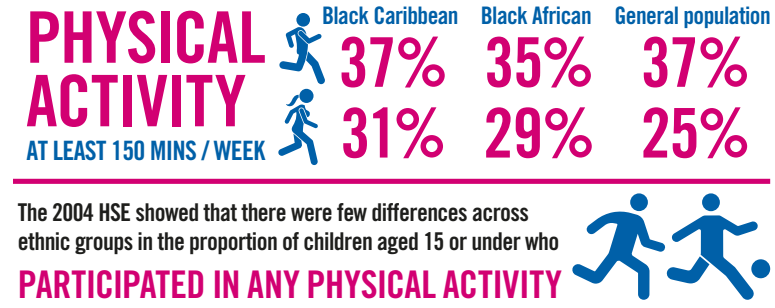
Wang and Li[66] explored ethnic minority generational differences in dietary style in Britain, and whether these differences could be explained by generational differences in demographic characteristics, socioeconomic status and ethnic identity. The data was drawn from the United Kingdom Household Longitudinal Study for 59,189 White British, 1690 Indians, 960 Pakistanis, 555 Bangladeshis, 1060 Black Caribbeans, and 1059 Black Africans. The number of servings of fruits and vegetables eaten per day (ranges from 0 to 26) is a count variable that was used to measure the health level of dietary style. In terms of health behaviours, all ethnic minorities and both first- and second-generation ethnic minorities were significantly less likely to eat fruits and vegetables than White British to a similar degree (Black Caribbeans, 3.03; White British, 3.36). The investigators found little evidence for generational differences in dietary style across the five groups. With respect to generational status, all second-generation ethnic minorities were found to eat fewer servings of fruits/vegetables per day compared to the first-generation. First generation Black

Caribbeans were found to eat 3.19 servings of fruit or vegetables compared with 2.90 in the second generation (these differences were not significant). The mean number of servings for both first and second generation were highest across the five ethnic groups. In regression models, after controlling for demographic characteristics and ethnic identity, all ethnic minorities were found to tend to eat significantly fewer fruits/vegetables than the White British. Moreover, the ethnic differences were generally more pronounced among second-generation Indians, Black Caribbeans, and Black Africans.

2.3.4 Food Poverty and insecurity

Prayogo *et al.*[67] investigated the use of foodbanks in the London Trussell Trust network and found that 39.6% (107/270) were 'Black', 47.0% (127/270) 'White', and 13.3% (36/270) 'Mixed, Asian, and Others'. Given the concentration of the Black groups in London, this finding is important. This is clearly a substantial over-representation of the Black group. At the national level, and of British-born people referred to food banks, data from the Trussell Trust, a charity that supports food aid efforts across the U.K., reveal only 4% of referrals came from Black communities compared with 93% of those who identified as White British.

The impact of the COVID-19 lockdowns on the use of foodbanks in the Trussell Trust network shows that people from ethnic minorities are significantly overrepresented[68]. One in 10 (9%) of people that were referred to food banks in the Trussell Trust network and received a food parcel in June or July 2020 identified as Black or Black British. This is three times the rate of the UK population (3%). In contrast, just seven in 10 (71%) identify as White British, with a further 5% identifying as White Other. In the UK population these groups make up three in four (79%) and one in 12 (8%) respectively.



2.4 Active at Every Age and Ability

Active at Every Age and Ability Key Findings:

- In the 2004 Health Survey England (HSE) Black Caribbean women and men had, respectively, the highest and second highest levels of participation in physical activity.
- More recent data (2018/19) show the relative position of the 'Black' group to the 'White' group to have deteriorated, people from Asian and Black groups, and women in particular, being reported to be most likely to report being physically inactive.

This chapter focuses on activity rates at all ages and participation in physical activity.

2.4.1 Participation in physical activity

The 2004 Health Survey for England reported on participation in physical activity by ethnic group. 37% of men and 25% of women in the general population had high activity levels, that is, a level defined as achieving the recommendations of participating in activity of moderate to vigorous intensity for at least 30 minutes on five or more days a week on average. Among minority ethnic groups, Irish (39%) and Black Caribbean (37%) men had the highest rates of adherence to the recommendations, Black Africans having only a slightly lower rate (35%). Black Caribbean, Black African and Irish women had the highest rates (31%, 29% and 29%, respectively). South Asian men and women had lower rates.

Two thirds of men in the general population reported regular participation in any physical activity (at least once a week on average). Regular participation was also reported by about two thirds of those in the Irish,

Black Caribbean, Black African minority ethnic groups. Six in ten women in the general population participated regularly in physical activity, the proportion being the same (61%).

The 2004 HSE showed that there were few differences across ethnic groups in the proportion of children aged 15 or under who participated in any physical activity.

More recent reports of physical activity are only stratified by the pan-ethnicities. Levels reported for 2018/19 show the relative position of the 'Black' group to the 'White' group to have deteriorated. People from Asian and Black groups, and women in particular, were reported to be most likely to report being physically inactive and least likely to report being active[69].

The percentage of males aged 16 years and over who were physically active in England, 2018/19, was highest in the Mixed group (71.3%), followed by White British (66.4%), Other (66.1%), Chinese (65.1%), and White Other (65.0%). Lower percentages were found in the Black (63.8%) and Asian (57.9%) groups. Rates were lower in all the female groups except White Other (65.5%): Mixed (65%), White British (63%), Chinese (57.4%), Other (56.6%), Black (52.9%), and Asian (49.1%).

The percentage of males aged 16 years and over who were physically inactive in England, 2017/18 is the inverse of these proportions. Amongst males the most physically inactive were 'Black' (29%) and 'Other' (29%), followed by 'Asian' (27%) and 'Chinese' (26%) males. The Mixed and White groups had rates of 19-23%. Amongst women the highest rate of physical inactivity was found in the 'Asian group' (36%), followed by the 'Other' (31%) and 'Black' (29%). The 'White Other', 'White British', and 'Chinese' groups had lower rates, 24%, 25%, and 26%, respectively, while the 'Mixed' group (18%) had the lowest rate.

In 2019-20 the percentage of Black Caribbeans who got a grade 5 or above in English and maths GCSE, was the lowest of all 18 census ethnic groups, apart from Gypsy/Roma and Irish Traveller

29.2% BLACK CARIBBEAN BOYS **40.4%** BLACK CARIBBEAN GIRLS

9.1% of Black Caribbean students got at least 3 A grades at A level, the lowest of all ethnic groups apart from Irish Traveller in 2019-20

ECONOMICALLY ACTIVE MEN AND WOMEN IN THE UK

	Caribbean	General population
Men	86.3%	91.8%
Women	82.7%	82.2%

Full-time employment rates in Black Caribbean men aged 25-49 were consistently below those of the White British in 1991, 2001, and 2011; Black Caribbean women rates were persistently higher than for White British women

45% In 2011 Black Caribbeans had a relatively high level of owner-occupation, with 45% owning their houses, substantially higher than 'Other Black' (28%)

Black Caribbeans had a relatively low level of overcrowding based on bedrooms (10%), compared with 17% in the Black Other group, 22% in the Black African group and 3% in the White British group. 2016-19 data shows that Black Caribbeans had amongst the lowest levels of overcrowding and damp

There was a substantial gender gap in Black Caribbeans progressing to higher education (boys vs. girls), the highest of any ethnic group

2.5 Working and Learning Well.

Working and Learning Well Key Findings:

- Age-standardised ratios of limiting long-term illness for men, comparing minority ethnic groups with the White British group, show that in 2011 Black Caribbeans (1.02) and the Other Black group (1.03) were amongst the six ethnic groups that had worst health than the White British group.
- Black Caribbean females also occupied an unfavourable position on this measure compared with the White British group: their age-standardised limiting long-term illness ratio was 1.04, amongst the 8 ethnic groups with worse rates than the White British group.
- In both the 1991 and 2001 Censuses Black Caribbean men and women had worse health than the White group.
- Taking 'bad or very bad health' in the 2011 Census general health question, the born in Jamaica population had higher rates in the 50-74 (52.0%) and 75+ (38.5%) age groups than in the England and Wales population as a whole (46.9% and 27.5%, respectively), though much lower rates in the younger age groups.
- In 2021 data Black Caribbean men and women aged 45-59 had the third highest rates of long-standing health problems.

Educational attainment

- In 2019-20 29.2% of Black Caribbean boys got a grade 5 or above in English and maths GCSE, the lowest of all 18 census ethnic groups, apart Gypsy/Roma and Irish Traveller; 40.4% of Black Caribbean girls attained at this level, again the lowest excluding Gypsy/Roma and Irish Traveller.
- In 2019-20 9.1% of Black Caribbean students got at least 3 A grades at A level, the lowest of all ethnic groups apart from Irish Traveller.
- For 'high tariff' higher education institutions the Black entry rate was 5.2%, less than half that for all students and lowest apart from Gypsy Travellers.
- Retention rates are generally lower, and degree outcomes poorer, than average for the 'Black' broad ethnic group.
- In 2011 Black Caribbean women were noticeably more likely to have a degree than men in the Black Caribbean group.
- With respect to those with degree level qualifications, Jamaican migrants were close to the bottom of the rank order, 10% of 16-24 year olds, 26% of 25-49 year olds, and 25% of 50-64 year olds having this level of attainment.
- A range of factors that account for the underachievement of Black Caribbean pupils in schools in England: head-teachers' poor leadership on equality issues; institutional racism; stereotyping; teachers' low expectations; curriculum barriers and relevance; lack of diversity in the work force; and lack of targeted support.
- Students' socio-economic status (SES) also underlies some of these differentials in educational attainment.

Housing

- In 2011 Black Caribbeans had a relatively high level of owner-occupation, with 45% owning their houses, substantially higher than 'Other Black' (28%).
- Black Caribbeans had the lowest proportion (15%) across all ethnic groups living in private rented accommodation.
- Black Caribbeans had a relatively low level of overcrowding based on bedrooms (10%), compared with 17% in the Black Other group, 22% in the Black African group and 3% in the White British group. 2016-19 data shows that Black Caribbeans had amongst the lowest levels of overcrowding and damp.

Labour Market

- In 2011 86.3% of Black Caribbean men aged 25-49 years were economically active, lower than White men in this age group (91.8%).
- In 2011 82.7% of Black Caribbean women in this age group were economically active, the highest of the main ethnic groups including the White group (82.2%).
- With respect to full-time employment, rates in Black Caribbean men aged 25-49 were consistently below those of the White British in 1991, 2001, and 2011; in the case of Black Caribbean women, rates were persistently higher than for White British women.

This chapter includes a range of topics: general health, and long-standing health impairment, illness or disability; educational attainment; economic activity; and housing.

2.5.1 General health and long-standing health impairment, illness or disability

Measures of generic health status by ethnic group are available from the decennial censuses. These include age-standardised limiting long-term illness (asked in the 1991, 2001 and 2011 England and Wales Censuses) and general health (asked in 2001 and 2011). Black Caribbeans are compared with other ethnic groups and across gender and age subgroups. There are no age-standardised limiting long-term illness data that are stratified by any Black Caribbean country of birth using 2001or 2011 Census data.

2.5.2 Limiting long-term illness

Two measures of generic health status are available in the census which is produced every 10 years: limiting long-term illness and general health. In 2011 the former asked: Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months? The question instruction stated, 'include problems related to old age' with response options of 'yes, limited a lot', 'yes, limited a little', and 'no'. A limiting long-term illness (LLTI) question was first asked in the 1991 Census and the general health question was introduced in 2001, though there have been minor changes in wording. Analyses of these data[70, 71] show important variations across ethnic groups and by gender.

Age-standardised ratios of limiting long-term illness for men, comparing minority ethnic groups with the White British group, show that in 2011 Black Caribbeans (1.02) and the Other Black group (1.03) were amongst the six ethnic groups that had worst health than the White British group. Black Caribbean females also occupied an unfavourable position on this measure compared with the White British group: their age-standardised limiting long-term illness ratio was 1.04, amongst the 8 ethnic groups with worse rates than the White British group.

There were some differences in LLTI proportions for Black Caribbean and Other Black males and females compared with the White British group across age groups (0-15, 16-64, and 65 and over). In 2011 amongst 0-15-year-old males, 5.51% of Black Caribbeans and 4.52% of Other Black had LLTI compared with 4.83 White British males. Amongst 16-64 aged males, 13.04% of Black Caribbean males and 12.93% of Other Black males had LLTI, compared with 13.35% White British males. Amongst 65+ males, 52.81% of Black Caribbean males and 51.68% of Other Black males had LLTI, compared with 50.16% of White British males. With respect to females aged 0-15, 3.52% of Black Caribbeans and 3.43% of Other Black had LLTI compared with 2.96% of White British. Amongst females aged 16-64, 14.12% of Black Caribbeans and 13.82% of Other Black had LLTI, compared with 14.13% of White British females. For females aged 65+, 60.40% of Black Caribbeans and 59.36% of Other Black had LLTI compared with 56.06% of White British females.

Analyses of limiting long-term illness by region showed that both Black Caribbeans and Black Other had less advantage in London (with the health advantages being larger outside London). For example, Black Caribbean men living in London were11% more likely than White British men to report a limiting long-term illness in 2011, but Black Caribbean men living in other regions of England and Wales were only 3% more likely than White British men to report a limiting long-term illness. Among women, Black Caribbean women living in London were 11% more likely than White British women to have a limiting long-term illness, but only 6% more likely among Black Caribbean women living outside London.

Relative rankings in the age-standardised ratios of limiting long-term illness have changed little since 1991, though changes in wording may have affected how people interpreted the question, requiring caution in drawing comparisons. The 2001 Census findings showed that age standardised LLTI ratios for Black Caribbean men and women were worse than the White British rate. Black Caribbean women had substantially worse health than Black Caribbean men, only Pakistani and Bangladeshi women having higher rates of illness. The 1991 Census LLTI question also yielded findings similar to the 2001 Census. Black Caribbean men and women had worse health than the White group. Only Bangladeshi and Pakistani men had higher rates. Black Caribbean women had the highest rate of LLTI.

One major drawback of these data is that they yield findings for the Black Caribbean group which is heterogeneous with respect to country of birth. The only country for which data is available is Jamaica. There was only one table for the 2011 Census that tabulated general health by age group by country of birth (table CT0067). Taking 'bad or very bad health', the born in Jamaica population had higher rates in the 50-74 (52.0%) and 75+ (38.5%) age groups than in the England and Wales population as a whole (46.9% and 27.5%, respectively). In the younger age groups (0-15, 16-34, and 35-49), the proportions in the 'bad or very bad health' group were much lower in the Jamaica country of birth group than in the population as a whole.

2.5.3 General health

The general health question in the England and Wales 2011 Census asked: 'How is your health in general?', with response options of 'very good', 'good', 'fair', 'bad', and 'very bad'. A similar question was asked in the England and Wales 2001 Census: 'Over the last twelve months would you say your health has on the whole been: Good? Fairly good? Not good?'.

Bécares' analysis using this measure of health yields a similar pattern of inequalities as limiting long-term illness, though across ethnic groups in general inequalities in general health are larger than inequalities in limiting long-term illness as minority ethnic groups tend to under-report the latter[72]. In the 2011 Census age-standardised illness ratios, relative to the White British group, showed that Black Caribbean men and women had worse health than the White British group. Black Caribbean men had the third worst health of the18 census ethnic groups, while Black Caribbean females had the fourth worst health. Other Black men and women also had worse self-rated general health than the White British group, the rate in females being substantially worse than in men. Similar inequalities were found in the 2001 general health question, Black Caribbean men having the fourth worst health and Black Caribbean women the second worse health.

2.5.4 Other survey evidence

The foregoing findings of poor generic health status amongst Black Caribbeans is confirmed by other more recent survey evidence. Platt's[73] analysis of the Labour Force Survey (2016 Q1 to 2019 Q4 (weighted)) showed that amongst men aged 45-59, the percentage of Black Caribbeans with long-standing health problems (40.8%) was the third highest across eight groups, and above the White British rate (40.5%). The percentage of Black Caribbean men with multi-morbidity (>1 health condition) was 18.8%, again the third highest and above the White British rate of 16.1%.

The percentage of Black Caribbean women with long-standing health problems, 44.9%, was the third highest (and above the White British rate of 42.5%). Black Caribbean women with multi-morbidity (>1 health problem), 23.6%, was the third highest and, again, above the White British group (18.8%).

2.5.5 Educational Attainment

School-based measures

Black Caribbean and Black Other pupils have been a focus of attention with respect to their attainment throughout the school years. Ethnicity facts and figure website (education, skills, and training) reports three measures. In 2019-20 29.2% of Black Caribbean boys got a grade 5 or above in English and maths GCSE. This was the lowest of all 18 census ethnic groups, apart Gypsy/Roma and Irish Traveller), followed by the Mixed: White and Black Caribbean group (32.4%) and the Black Other group (3.29%). 40.4% of Black Caribbean girls got a grade 5 or above in English and maths GCSE, followed by Mixed: White and Black Caribbean group, again the lowest of all ethnic groups excluding Gypsy/Roma and Irish Traveller.

A measure known as Progress 8 considers the progress schools make with their pupils between the end of key stage 2 (end of primary) and the end of key stage 4 (GCSE phase). A positive score means that on average, a group of pupils makes more progress than peers with similar prior attainment nationally. White pupils make the least progress of any major ethnic group, at -0.11. Black pupils typically make more progress, at +0.13, but lag behind Chinese pupils (+0.86) and Asian pupils (+0.47).

In 2019-20 9.1% of Black Caribbean students got at least 3 A grades at A level, the lowest of all ethnic groups apart from Irish Traveller. The figure for Black Other students was 11.2%.

Access to higher education

Using data on access to higher education from the admissions service UCAS, Roberts and Bolton[74] report that in 2019 just under 51,000 people from Black ethnic groups in England were accepted to full-time undergraduate courses in the UK, of whom 40,0000 were Black African, 8,600 Black Caribbean, and 2,400 from other Black backgrounds. A further 10,000 people were accepted from mixed Black and White backgrounds. UCAS estimates entry rates for 18-year-olds in England but only for broad ethnic groups. For all HE institutions the entry rate was highest for Chinese (68%), followed by Asian (50%), Black (45%), Other (43%), Mixed (36%), and White (36%). The entry rate of Black young people has increased from 28% in 2010, the largest increase of any ethnic group. For 'high tariff' HE institutions the Black entry rate was lowest (8%). The proportion of entrants to higher education who got into a higher tariff institution was 17% for Black 18-year olds compared to 51% of their Chinese counterparts. Data from the Department for Education looks at the proportion of young people from state-funded schools starting higher education by age 19, broken down by granular ethnic groups and gender for the year 2018/19. For males only 34.6% of Black Caribbeans progressed to HE, compared with 44.0% Any other Black background, 59.1% Black-African, and just 29.3% of Mixed: White and Black Caribbeans. Amongst females, 54.6% of Black Caribbeans progressed to HE, lower than Any other Black background (60.4%), and Black-African (74.6%). The gender gap among Black Caribbean young people was, at 58%, larger than any other ethnic group. Only 5.2% of Black Caribbean young people progressed to higher education at a 'high tariff' institution, less than half the rate across all students (10.9%) and the lowest level (apart from Gypsy/Roma and Traveller groups) of any ethnic group.

In addition, retention rates are generally lower, and degree outcomes poorer, than average for the Black broad ethnic group. The latest data (for 2016/17 starters and graduates) show that the non-continuation rate for Black students was 15%, compared with 9% in the White and Asian groups. 60% of the Black group obtained first or upper second-class degrees, substantially lower than the Mixed, White, and Asian groups.

The results gap

The most comprehensive data on qualifications is that collected in the 2011 England and Wales Census, which yielded data on persons with no qualifications and those with degree level qualifications for the 18 ethnic categories[75]. 20% of Black Caribbeans and 16% of Other Black had no qualifications, 8th and 9th in the rank order, and lower than the White British category (24%, 5th). With respect to people with degree-level qualifications, 26% of Black Caribbeans and 27% of Other Black had these qualifications, ranking 13= (with White British) and 12th in the rank order. In 2011 Black Caribbean women were noticeably more likely to have a degree than men in the Black Caribbean group. The proportion of Black Caribbeans with degree level qualifications had increased from 9.16% in 1991 to 19.69% in 2001 and 25.91% in 2011. Black Caribbeans with no qualifications fell from 27% in 2001 to 20% in 2011.

These measures are also available by country of birth but only one, Jamaica, of the 23 listed countries of birth is relevant to the Caribbean Commonwealth (the category 'Other Americas and the Caribbean', while excluding the USA and Canada, includes Central and South America). Amongst Jamaican migrants, those with no qualifications increased with age: 12% amongst 16-24-year olds, 18% 25-49-year olds, and 22% 50-64-year olds (the percentages for Other Americas and the Caribbean were 8%, 8%, and 16%, respectively). The comparable percentages for persons born in the UK were 11%, 11%, and 25%. With respect to those with degree level qualifications, Jamaican migrants were close to the bottom of the rank order, 10% of 16-24-year olds, 26% of 25-49-year olds, and 25% of 50-64-year olds having this level of attainment. With respect to year of arrival, the same proportion - around 20% - held degree-level qualifications who arrived before 1991, arrived 1991-2000, and arrived 2001-2011.

In 2019/20 there were relatively few non-UK domiciled students from across the Caribbean Commonwealth islands and mainland countries who were at UK higher education institutions (HESA 2021). Of the total of 2,260 students, the highest number were from Trinidad and Tobago (n=567, 25.2%), followed by Cayman Islands (n=380), and Jamaica (n=240).

Understanding the achievement gap

There is a substantial literature on the gap in the educational attainment of Black (Black Caribbean, Black Other, and the Mixed: White and Black Caribbean group) and the other ethnic groups. Demie[76] found a range of factors that account for the underachievement of Black Caribbean pupils in schools in England: headteachers' poor leadership on equality issues; institutional racism; stereotyping; teachers' low expectations; curriculum barriers and relevance; lack of diversity in the work force; and lack of targeted support.

Students' socio-economic status (SES) also underlies some of these differentials in educational attainment. Strand[77] analyses ethnic, socio-economic and sex differences in educational achievement at age 16 using the Second Longitudinal Study of Young People in England (LSYPE2) (n=9,704 students). Amongst the substantive findings, the groups with the lowest achievement at age 16 were White British and Black Caribbean/ Mixed White & Black Caribbean (MWBC) students from low SES backgrounds, who had mean scores well below the average for all students. This is most pronounced for boys (-0.77 SD and -0.68 SD respectively), but low SES girls of Black Caribbean/MWBC and White British heritage are also the lowest scoring groups of girls (-0.54 SD and -0.39 SD respectively). Among students from average SES backgrounds, only Black Caribbean/ MWBC and White British boys have mean scores that fall below the average score for all students. Black Caribbean and Black African boys from high SES families score lower than White British boys from high SES groups.

Business in the Community[78] stated that Black Caribbean students continue to be strikingly under-represented in the UK's most prestigious universities. In 2010 David Lammy, MP, deplored the fact the 'Just one British Black Caribbean student was admitted to Oxford last year [in 2009]'. A number of investigators have claimed that when university applicants from Black and other ethnic minority backgrounds do apply to Russell Group universities, they are substantially less likely to be offered places than comparable White applicants. Further, ethnic minority students have been shown to receive poorer marks at degree level than White students with the same level of prior attainment. Some organisations (such as Equality Challenge Unit, 2011) have found racism to be commonplace. Boliver[79] concluded that 'ethnic minority applicants are less likely than comparably qualified White applicants to receive offers from Russell Group universities, especially in relation to degree programmes that attract disproportionately high numbers of ethnic minority applicants. Ethnic disparities in offer rates have been shown to exist (but of smaller magnitude) at other Old (pre-1992) and New (post-1992) universities too[80].

2.5.6 Housing

A variety of sources, including the decennial census and government social and general-purpose surveys, have asked a number of questions on household housing circumstances. The 2011 England and Wales Census asked about the type of accommodation (detached, semi-detached, terraced, flat, maisonette, or apartment, and mobile or temporary structure), whether the accommodation is self-contained; rooms available for use by the household and number that are bedrooms; type of central heating; and housing tenure. The 1991 Census asked a question about household amenities (a bath or shower, an inside flush toilet, and central heating in living rooms and bedrooms) but this was shortened in the 2001 England and Wales Census (to a bath/shower and toilet and separate question on central heating). The Black Caribbean and Black Other groups are disproportionately disadvantaged on several of these dimensions.

In the 2011 England and Wales Census, Black Caribbeans (as defined by the ethnic group of the Household Reference Person (HRP)) had a relatively high level of owner-occupation across all eighteen ethnic groups, with 45% owning their houses, substantially higher than 'Other Black' (28%). This compares with 68% for White British. Black Caribbeans had the lowest proportion (15%) across the 18 ethnic groups living in private rented accommodation, though the speed of increase in private renting between 1991 and 2011 was amongst the greatest for Black Caribbeans (more than doubled). Other Black was eighth lowest at 25%. Black Caribbeans had the fifth highest proportion (40%) living in socially rented accommodation; 'Other Black' was the highest (48%). The relatively high proportion of Black Caribbean owner-occupiers (compared with Black Africans) may reflect the historically high levels of migration.

2011 England and Wales Census questions on number of rooms convert to measures of under-occupied housing, housing that meets the standard and statutory requirements, and overcrowded housing. Based on the number of bedrooms Black Caribbeans had a relatively low level of overcrowding (10%), compared with 22% in the Black African group and 3% in the White British group. (Other Black was 17%)[81]. 50% of Black Caribbeans under-occupied their accommodation, that is, at least one spare bedroom, compared with more than two-thirds of the White British and White Irish ethnic groups. 40% of Black Caribbeans had the required number of bedrooms.

Overcrowding based on rooms rather than bedrooms gives higher levels of overcrowding for each ethnic group but with similar relative positions as the bedroom-based measure. Just 18% of Black Caribbean accommodation was overcrowded, but 29% of Other Black accommodation[82]. Finney and Harries[83] compare change over time in overcrowding and under-occupancy using the room-based measure in the 2001 and 2011 Census. Levels of overcrowding decreased for most ethnic groups, resulting in a reduction in ethnic inequalities on this measure.

The 2011 England and Wales Census findings are now more than a decade out of date. However, a number of more recent government surveys show the persistence of the inequalities identified in the Census findings. The English Housing Survey (April 2016 to March 2019: 3 years combined) showed that in England Black Caribbeans (7%) and Black Other (3%) had amongst the lowest levels of overcrowding across the 18 Census ethnic categories. Only the White British group (2%) had a lower level[84]. The English Housing Survey for these years provides information on households with damp. Black Caribbean households (2%) had one of the lowest affected by damp, although the proportion for Black Other was substantially higher at 10%. These figures compare with 3% for the White British group.

2.5.7 The Labour Market

In the 2011 England and Wales Census 86.3% of Black Caribbean men aged 25-49 years were economically active, lower than White men in this age group (91.8%)[85]. In 1991 the proportion had been 92.9%, falling to 85.2% in 2001. The percentage of economically active Black Caribbean men aged 50-74 was 61.8%. Black Caribbean men in this age group had experienced one of the steepest falls, from 68.6% in 1991 to 42.5% in 2001. In contrast to men, economic activity rates for 25-49-year-old women increased for all ethnic groups between 1991 and 2001. In 2011 82.7% of Black Caribbean women in this age group were economically active, the highest of the main ethnic groups including the White group (82.2%). The proportions had increased from 76.6% in 1991 to 77.0% in 2001. Amongst women aged 50-74 years, 57.3% of Black Caribbeans were economically active, higher than for White women (47.1%).

With respect to type of employment and levels of unemployment for men aged 25 to 49, the lower rates of full-time employment (66% in 1991, 70% in 2001, and 61%) in Black Caribbeans were persistently below those for the White group. Amongst women aged 25-49, full-time employment for Black Caribbeans decreased from 69% in 1991 to 57% in 2011, in contrast to the White group where rates were lower (51% in 1991 to 52% in 2011) but stable.

Black Caribbean men experienced falling unemployment rates from 1991. However, as the labour market was more favourable in 2011 compared with 1991, their position compared with White men improved little. The less favourable position of Black Caribbean men and women in the labour market is likely to be explained by discrimination at the recruitment stage and subsequently.

Although not an NHS screening programme, uptake of prostate-specific antigen (PSA) testing is

LOWER IN BLACK THAN WHITE MEN

Black Other and Black Caribbean women had amongst the poorest levels of attendance for

BREAST CANCER SCREENING

Lower levels of attendance may account for higher levels of late stage breast cancer diagnosed in these groups

THE NUMBER OF HIV DIAGNOSES FIRST MADE IN ENGLAND AMONG HETEROSEXUAL PEOPLE DECLINED BY

40% amongst Black Caribbean heterosexuals (from 50 to 30) between 2019-20, but was less pronounced among Black Africans (25%, 400 to 300)

TUBERCULOSIS CASES PER 100,000

	Black Caribbeans	Black Other
UK-BORN	10.0	18.7
NON-UK-BORN	17.9	51.0

Adult vaccination programmes 2021 fully adjusted data show reduced vaccination uptake in Black Caribbean and Black African populations

50% COMPARED TO THE WHITE POPULATION **70%**

There is evidence that Black Caribbean and Black British people attend for the annual NHS Health Check at a level above their representation in the population, although there may be pockets of poor attendance

2.6 Protect and Detect

Protect and Detect Key Findings:

- Compared with White British women, Black Other and Black Caribbean women had amongst the poorest levels of attendance for breast cancer screening. Lower levels of attendance may account for higher levels of late stage breast cancer diagnosed in these groups.
- Minority ethnicity has also been associated with lower attendance for cervical screening, even when socio-economic position is adjusted for, lack of awareness of the service being one barrier.
- Research studies indicate that men and women of all minority ethnic groups are significantly less likely to take up bowel cancer screening, lack of awareness of the service being one barrier. Black Caribbean men were also disproportionately less likely to attend for Abdominal aortic aneurysm (AAA) screening.
- Although not an NHS screening programme, uptake of prostate-specific antigen (PSA) testing is lower in Black than White men.
- There is evidence that Black Caribbean and Black British people attend for the annual NHS Health Check at a level above their representation in the population, although there may be pockets of poor attendance.

Sexual health infections and other infectious diseases

- The number of HIV diagnoses first made in England among heterosexual people declined by 40% amongst Black Caribbean heterosexuals (from 50 to 30) between 2019-20,but was less pronounced among Black Africans (25%, 400 to 300).
- 2020 data on sexually transmitted infections in the West Midlands for the five pan-ethnic groups shows that rates for new STI diagnoses and five individual diagnoses (Chlamydia, Gonorrhoea, Herpes, Syphilis, and Warts) are higher in the Black or Black British group.
- Earlier surveillance systems showed that Black Caribbeans and Black Other had the highest rates.
- For the UK-born population in the United Kingdom Black Caribbeans and Black Other had tuberculosis rates of 10.0 and 18.7 cases per 100,000, respectively, and 17.9 and 51.0, respectively, in the non-UK-born population.

Other

- In 1919-20 the rate of victimhood of domestic violence for Black Caribbeans, 3.2%, and for Black Other, 2.5%, was lower than that for White British (5.9%)
- For adult vaccination programmes 2021 data show reduced vaccination uptake in Black Caribbean and Black African populations (50%) compared to the White population (70%) in fully adjusted data.

- Earlier surveillance systems showed that Black Caribbeans and Black Other had the highest rates.
- For the UK-born population in the United Kingdom Black Caribbeans and Black Other had tuberculosis rates of 10.0 and 18.7 cases per 100,000, respectively, and 17.9 and 51.0, respectively, in the non-UK-born population.

The topics in this section include cancer screening, sexual health infections, domestic violence and vaccination programmes.

2.6.1 Screening for cancer and other conditions

Take-up of screening is a particularly useful measure of equity of access to healthcare as it is not determined by underlying health conditions. All persons who are eligible for a particular screening programme receive an invitation so low uptake may reflect barriers to access. Moreover, it is a measure that makes an important contribution to the reduction of cancer mortality. There is evidence for lower rates of screening for some cancers and for particular minority ethnic groups.

2.6.2 Breast cancer screening

A study in Scotland[86] found non-attendance at first breast-screening invitation (2002–2008) was higher for the African origin group (162.2, 95% CI 130.8–201.1) (and also for Pakistanis, Indians, and Other South Asians) compared with the White Scottish group (=100). These disparities persisted after adjustment for rural vs urban residence, long-term illness, area deprivation and education. An investigation of breast cancer screening uptake (as part of the national breast screening programme) among women from different ethnic groups in London during the period 2006-9[87] reported that White British women attended their first call (67%) and

routine recall (78%) invitations most often. Women in minority ethnic groups were less likely to attend these calls: Indians (61% and 74%), Bangladeshis (43% and 61%), Black Caribbeans (63% and 74%), and Black Africans (49% and 64%). Fully adjusted odds ratios for attendance at their routine call screening appointment in London showed that, compared with the White British group (1.00), Black Other (0.50 (0.44 to 0.89)) had one of the poorest levels of attendance, though Black Caribbean was better (0.79 (0.76-0.83)). Lower levels of attendance may partially account for the fact that Black women are more likely to be diagnosed with breast cancer at late stage compared with White women[88], a factor which can affect treatment success and mortality. Late-stage disease is found in about 25% of Black African and 22% of Black Caribbean breast cancer patients, compared with 13% in White breast cancer patients.

Factors that may account for the high non-attendance of Black women include a low knowledge of breast cancer-screening services and socio-cultural issues surrounding women's health.

2.6.3 Cervical cancer screening

Minority ethnicity has also been associated with lower attendance for cervical screening, even when socio-economic position is adjusted for (Moser *et al*., 2009, although results were for White British and Other; Webb *et al*., 2004, but only for 'South Asian' and 'Other')[89, 90]. A survey of Black women in London which explored their knowledge of cervical cancer and attendance at cervical cancer screening[91] found that being younger, single, African (compared to Caribbean) and attending religious services were more frequently associated with being overdue for screening. Common barriers in the latter group were 'not getting around to it', fear of the test procedure, and low risk perception. In a study by Nelson *et al*.[92], reported experiences of participation and non-participation in cervical screening amongst minority ethnic women in Scotland included difficulties managing competing priorities, including work and care responsibilities; going abroad for more frequent screening; delayed introduction to screening and not accessing primary care services; language difficulties in health-care settings despite proficiency in English; and not being sexually active at screening commencement, and experiences of racism, ignorance and feeling shamed. A qualitative study of barriers to cervical cancer screening among ethnic minority women (including Black Caribbeans)[93] reported that ethnic minority women felt that there was a lack of awareness about cervical cancer in their community and several did not recognise the terms 'cervical screening' or 'smear test'. Amongst the barriers all women raised emotional (fear, embarrassment, shame), practical (lack of time) and cognitive (low perceived risk, absence of symptoms) barriers. Low perceived risk of cervical cancer was influenced by beliefs about having sex outside of marriage and some women felt a diagnosis of cervical cancer might be considered shameful.

2.6.4 Bowel cancer screening

There is limited data on bowel cancer screening as UK bowel screening databases (including Scotland) do not routinely include an ethnic code. However, Campbell *et al*.[94] used data on 1.7 million individuals in two rounds of the Scottish Bowel Cancer Screening Programme (2007– 2013), linked to the 2001 Census using the Scottish Community Health Index number. African origin men (2500/100,000) had a lower rate of returning the completed screening kit than the White Scottish men (3060/100,000), although their rate was higher than Indians and Pakistanis. African origin women had a rate of 1515/100,000, lower than the 1808/100,000 in White Scottish women, and also lower than for Indian and Pakistani women. 'African origin' was a term used for Black Africans, Black Caribbeans, and Black Other persons. A study of ethnic disparities in the uptake of colorectal cancer screening in a West London population[95] found a total of 155 038 individuals screened. White British individuals had the highest

compliance (52.6%). The odds of being less likely to participate were significant ($p < 0.05$) in all ethnic minorities except for Asian Chinese on univariate and multivariate analysis (adjusted OR 1.091, $p = 0.88$).

A qualitative study of factors influencing participation in colorectal cancer screening in an ethnic and socio-economically diverse inner-city population[96] found lack of awareness of colorectal cancer screening was a barrier for all participants (which included Black Caribbean and Black Other). Misunderstanding instructions for completing the guaiac faecal occult blood test (gFOBt) was a barrier for people of low SES regardless of ethnicity. For Black African and Black Caribbean participants, of any SES, religious faith and a perceived civic duty to participate in screening encouraged participation.

2.6.5 Abdominal aortic aneurysm (AAA) screening

The review by Davies *et al.*[97] found no studies which looked at how ethnicity influenced screening attendance. The current evidence is suggestive that telephone reminders plus support for low income groups and ethnic minorities could be effective at reducing inequalities in attendance, but more studies are required[98]. Jacomelli *et al.*'s[99] study of ethnic inequalities in Abdominal Aortic Aneurysm Screening in England found that AAA screening was more common in White British men than in Black (OR 0.46, 95% CI 0.31-0.71) or Asian (OR 0.18, 95% CI 0.13-0.26) men, though there was considerable local variation in the findings. Ahmad *et al.*[100] also found that Afro-Caribbean men were disproportionately less likely to attend for screening.

2.6.6 Prostate cancer PSA testing (not a national screening programme)

Although there is no national screening programme for prostate cancer in the UK, partly because the PSA test is not accurate enough to detect prostate cancer that needs treatment, the topic is mentioned here because of the high prevalence of prostate cancer in Black populations. In the PROCESS Cohort Study[101] Black men had higher age-adjusted rates of prostate cancer (166 per 100,000, 95% confidence interval [95%CI], 151–180 per 100,000) than White men (56.4 per 100,000, 95% CI, 53.3–59.5 per 100,000). The relative risks for all Black, Black Caribbean, and Black African men were 3.09 (95%CI, 2.79–3.43; $p < 0.0001$), 3.19 (95%CI, 2.85–3.56; $p < 0.0001$) and 2.87 (95%CI, 2.34–3.53; $p < 0.0001$), respectively. There was no strong evidence that the rates for Black Caribbean differed from Black African men. Uptake of prostate-specific antigen (PSA) testing is lower in Black than White men.

2.6.7 Attendance for NHS Health Checks

Although not defined as an NHS screening programme, the NHS Health Check, is a health check-up for adults in England aged 40 to 74, designed to spot early signs of stroke, kidney disease, heart disease, type 2 diabetes, or dementia.

Local demographic statistics on NHS Health Checks attended in England, April 2012-March 2018, have been published for the first time[102]. The number of Black or African or Caribbean or Black British patients recorded as having attended their check rose from 24,000 in 2012-13 (3.3% of the total patients attending) to 46,000 in 2017-18 (4.1% of the total patients attending), above their representation in the population. However, there may be pockets of under-representation in these groups. A recent study conducted in the ethnically diverse town of Luton found that 'Black African' (and 'Other White background') patients, were less likely to attend for their NHS Health check compared to all other ethnic groups[103]. There may also be subgroups that are disadvantaged. In its Long-Term Plan, the NHS has

committed to increase access to annual physical health-checks for people with severe mental illness, who experience poorer health outcomes and a reduced life expectancy by 15-20 years. The prevalence of severe mental illness is higher in Black and minority ethnic groups, placing importance on equal access to the checks.

2.6.8 Sexual health infections and other infectious diseases

HIV/AIDS

The number of HIV diagnoses first made in England among heterosexual people decreased by 23% (from 1,310 in 2019 to 1,010 in 2020, adjusted for missing information). The decline was 40% among White heterosexuals (from 470 in 2019 to 280 in 2020) and Black Caribbean heterosexuals (from 50 to 30) but less pronounced among Black Africans (25%, 400 to 300) and among Asians (17%, 60 to 50)[104]. The decline in HIV diagnoses first made in England among heterosexual men and women is likely to have been impacted by reduced access to HIV testing in 2020 and rather than longer term decreased transmission.

Sexually transmitted infections

Public Health England[105] provides data on sexually transmitted infections but only for the five pan-ethnic groups (White, Black, Asian, Mixed, Other). Rates are provided for new STI diagnoses and five individual diagnoses (Chlamydia, Gonorrhoea, Herpes, Syphilis, and Warts).

Rates were higher in the Black or Black British group compared with the White group in all these diagnoses. Public Health England's data on the rate per 100,000 of new STI diagnoses in 2020 in England showed that the rate was highest in the Black British group (1,737.3) compared with 438.0 in the White group. Rates in the West Midlands PHEC were 1,649.4 and 339.6, respectively. Rates of new chlamydia diagnoses per 100,000 in 2020 in England were 833.0 in the Black of Black British group and 209.4 in the White group (912.0 and 182.7, respectively, in the West Midlands PHEC). Rates of gonorrhoea diagnoses per 100,000 in 2020 in England were 359.8 in the Black or Black British group and 80.8 in the White group (333.3 and 56.5, respectively, in the West Midlands PHEC). Rates of anogenital herpes diagnoses per 100,000 in 2020 in England were 73.4 in the Black or Black British group and 33.4 in the White group (the respective rates in the West Midlands PHEC were 58.2 and 24.5). Rates of syphilis diagnoses per 100,000 in 2020 in England were 22.5 in the Black or Black British group and 10.9 in the White group (the respective rates in the West Midlands PHEC were 9.9 and 5.9). Rates of anogenital warts diagnoses per 100,000 in 2020 in England were 75.4 in the Black or Black British group and 45.0 in the White group (the respective rates in the West Midlands PHEC were 57.1 and 33.6).

One of the major drawbacks in establishing the incidence of sexually transmitted infections in the Black Caribbean and Black Other groups is that these are encompassed by the 'Black or Black British' term that includes the Black African population. Public Health England[106] reports: 'The highest population rates of STI diagnoses by ethnicity are among people of Black ethnicity, but this varies considerably among Black ethnic groups. People of Black Caribbean and Black non-Caribbean/non-African ethnicity have the highest diagnosis rates of many STIs of all ethnic groups, while Black Africans have relatively lower rates. Earlier reports show in more detail that the highest rates of STI diagnoses (genital warts, gonorrhoea, genital herpes, and syphilis) were found among persons of Black ethnicity, and the majority of these cases were among persons living in areas of high deprivation, especially in urban areas[107]. This high rate of STI diagnoses among Black ethnic communities is likely to be the consequence of a complex interplay of cultural, economic and behavioural factors, including higher rates of sexual partner change and concurrent partnerships among men of Black Caribbean or any other Black ethnicity.

Risk behaviours and STI epidemiology vary markedly between Black African and Caribbean ethnic groups[108, 109]. However, the setting up of new surveillance systems provided data available by ethnic group for genital Chlamydia infection, gonorrhoea, genital warts, genital herpes simplex virus, and syphilis. Early releases did provide tabulations for the separate Black groups[110]. The extent to which different groups are affected varies substantially, with especially high rates of sexually transmitted infections in the Black Caribbean and Black Other ethnic groups.

The 2002 Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP) collection showed that Black and minority ethnic groups continue to bear a disproportionate burden of gonorrhoea infections, with Black Caribbeans accounting for 32.55% and 41.2% of the total infections in females and heterosexual males, respectively, and ethnic minorities 47% of the total diagnoses. Data from the ProgrESS surveillance initiative shows a similar distribution by ethnic group for genital Chlamydia infection. The highest diagnostic rates in London were seen in the Black Caribbean and Black-Other groups. Amongst both male and female Black Caribbeans rates were over 900/100,000 population; the male rate in the Black-Other group exceeded 1200/100,000 and reached 1,500 amongst females in this group.

For genital warts, data from ProgrESS for London again show uneven rates of diagnoses across the different ethnic groups. The highest rates for both males and females were seen in the Black-Other group – exceeding 300/100,000 population – and rates were also high in the Black-Caribbean group (around 150 and 200/100,000 in males and females, respectively). Once again, with respect to Genital herpes simplex virus (HSV) infection, ProgrESS data for rates of diagnoses (first attack) in London show highest rates amongst Black ethnic groups: over 300/100,000 population amongst Black-Other females and 150/100,000 amongst Black-Caribbean females; around 175/100,000 and 100/100,000, respectively, amongst males.

Enhanced surveillance data for syphillis show that between April 2001 and September 2003 almost half of heterosexual diagnoses of syphilis were attributed to Black or Black-British ethnic groups.

2.6.9 Tuberculosis

Tuberculosis (TB) is a serious infectious disease characterized by the growth of nodules (tubercles) in the tissues, especially the lungs, and currently one of the key priorities of Public Health England. While there are signs of a decreasing trend in new TB cases, the UK still has high rates compared to most other European countries. The highest rates of disease are found among people of South Asian ethnicity, particularly those born outside the UK.

Tuberculosis case reports and rates by place of birth and ethnic group for the UK are published by Public Health England/Health Security Agency[111]. 2020 data shows that for the UK-born population in the United Kingdom Black Caribbeans (46 cases) had a rate of 10.0 (7.3-13.3) cases per 100,000, lower than the Black Other group (17 cases) with a rate of 18.7 (10.9-30.0) per 100,000. However, cases and rates have traditionally been higher in the non-UK born population. Non-UK born Black Caribbeans had a rate of 17.9 (12.2-25.3) cases per 100,000 (63 cases) and non-UK born Black Other a rate of 51.0 (33.0-75.3) per 100,000 (25 cases).

The number of TB cases in the non-UK born population has been influenced by detection methods. From 2012 the UK rolled out a pre-entry screening programme for migrants from high incidence countries and this programme has seen an increase in the number of cases identified in the pre-entry screening for all countries compared to the programme that targeted migrants from high TB incidence countries. Multi-drug resistant TB is a public health threat, the social factors that can contribute to this including interrupted adherence to treatment and contracting multi-resistant TB. TB affects children and most cases of TB reported in the 0-14

age group were in UK-born children. However, in the 2020 data there were no tuberculosis cases of either UK-born or non-UK born children in the Black Caribbean or Black Other ethnic groups.

While the association between deprivation and TB has long been recognised, there is significant heterogeneity in the role that social risk factors play in raising TB risk in different migrant and ethnic groups. Among UK-born cases notified in 2010–2016, 33.1 % of those in the Black-Caribbean ethnic group had at least one social risk factor (homelessness, imprisonment, drug or alcohol misuse), higher than any other ethnic group[112, 113]. 19.4 % of Black-Caribbean cases were drug users, and 18.6% had a history of imprisonment. Among people born in the UK notified between 2016 and 2020, the Black Caribbean ethnic group again had the highest proportion with a social risk factor (36.9%, 108 out of 293), in particular drug misuse (23.2%, 68 out of 293) and imprisonment (17.3%, 51 out of 294). Somalia (n=95) and Eritrea (n=91) were the countries of origin with the highest number of homeless TB cases. These findings indicate that socio-economic disadvantage may play an important role in explaining higher TB incidence among the Black African and Black Caribbean ethnic groups.

2.6.10 Domestic violence

The percentage of 16 to 74-year olds who reported being victims of domestic abuse in the previous 12 months was estimated from data in the British Crime Survey for April 2019 to March 2020[114]. The rate for Black Caribbeans, 3.2%, and for Black Other, 2.5%, was lower than that for White British (5.9%). The highest rates were in the 'Mixed White/Asian' (8.8%) and 'Mixed White/Black Caribbean' (10.6%) groups. In the Black Caribbean group women were more likely than men to experience domestic abuse in the previous 12 months: 4.1% vs. 1.9% (no figures are available for the Black Other group). These proportions were lower than for the White British group: 3.7% and 8.0%, respectively.

In Birmingham and Solihull CCG (2021) there is some provision for ethnic minority women. The CCG note a potential increased risk of domestic abuse at home for some during homeworking associated with the coronavirus pandemic.

There is a paucity of literature on the experiences of minority ethnic women (and especially those of Black Caribbean and Black Other ethnic group), though previous studies have reported that women from ethnic minority populations tend to distrust people outside their ethnic community.

2.6.11 Adult vaccination programmes

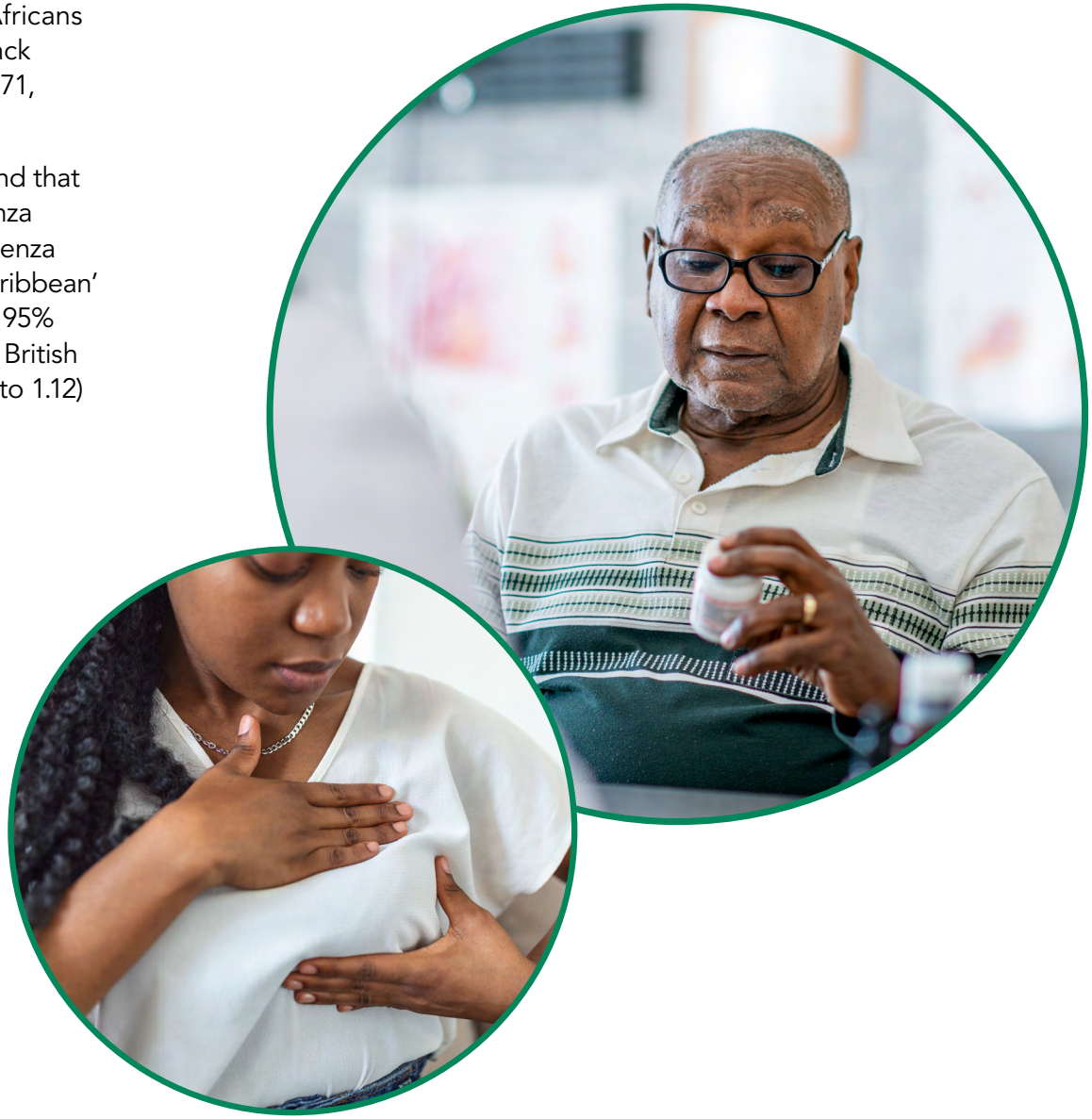
(for childhood vaccinations, see section 2.1.5; for COVID-19 vaccinations, see section 2.10.1)

For adult vaccination programmes QResearch[115, 116] report that there was consistently reduced vaccination uptake in Black Caribbean and Black African populations (50%) compared to the White population (70%) in fully adjusted data. Further, for more recently introduced vaccinations, such as rotavirus and shingles (both since 2013), the data shows lower vaccination uptake rates across all ethnic minority populations compared to the White population (10-20% lower).

These data are for adults aged 65 years (n=2,054,463) and over for influenza and pneumococcal vaccines, and 70 years and over (n = 1,513,191) for shingles vaccine. The odds ratios (95% CI) are maximally adjusted (for age, sex, region, type of home, BMI, smoking, and other comorbidities). Compared with the White population (OR=1.00), the OR for vaccination for influenza in the Black Caribbean group was 0.49 (0.47-0.50), worse than for the Black African group (0.68. (0.65-0.70)), recent releases from the having urged these groups to come forward[117]. The Black Caribbean group also had higher vaccination refusal than the White group for influenza vaccination (OR 1.17; 1.05-1.30). For pneumococcal vaccination, the OR for

Black Caribbeans was 0.64 (0.62-0.66), again worse than for Black Africans (0.88, 0.85-0.91). For shingles vaccination (age >=70), the OR for Black Caribbeans was 0.72 (0.69-0.75), similar to that for Black Africans (0.71, (0.68-0.74)).

A study in Manchester[118] (amongst 2.8 million registered patients) found that in total, 55.71% (419,314/752,715) of eligible individuals took up influenza vaccination. Compared to the White British group, inequalities in influenza vaccine uptake were widest amongst the groups 'White and Black Caribbean' (HR 0.63, 95% CI 0.58 to 0.68) and 'White and Black African' (HR 0.67, 95% CI 0.63 to 0.72). In contrast, uptake was slightly higher than the White British group amongst the groups 'other ethnic group' (HR 1.11, 95% CI 1.09 to 1.12) and Bangladeshi (HR 1.08, 95% CI 1.05 to 1.11).



Relative to the White population, Black Caribbean women had lower rates of breast, ovarian cervical, and lung cancer but higher rate of endometrial cancer (but not significantly so)

Top 5 causes of death in Black Caribbean men

1. Dementia or Alzheimer's
2. Ischaemic Heart Disease
3. Malignant Neoplasm of the Prostate
4. Cerebrovascular Disease
5. Malignant Neoplasms of Trachea, Bronchus and Lung

ISCHAEMIC (CORONARY) HEART DISEASE

Mortality rates for Black Caribbean men and women were lower than for the White group, significantly so in the case of men

Compared with the White group, the incidence of dementia was **25%** higher in Black Caribbean women and men. Mortality rates for dementia and Alzheimer's disease were amongst the highest for these groups.

Black Caribbean and Black Other people in London were half as likely as White people to have

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

after adjusting for smoking rates

In the 2004 HSE the prevalence of doctor-diagnosed diabetes was second highest in Black Caribbean men and women, rates reflected in 2017-19 mortality data

Evidence suggests that BME groups may have more unmet end of life care needs than people from White backgrounds and experience barriers to accessing good and personalised care

2.7 Ageing Well and Dying Well

Ageing and Dying Well Key Findings:

- The five most common leading causes of death (2017-19) for Black Caribbean men were, in rank order: dementia and Alzheimer's disease; ischaemic heart diseases; malignant neoplasm of the prostate; cerebrovascular diseases; and malignant neoplasms of trachea, bronchus and lung.
- Amongst females the five most common causes of death were: Dementia and Alzheimer's disease; ischaemic heart diseases; cerebrovascular diseases; influenza and pneumonia; and hypertensive disease.
- In the 2004 Health Survey England (HSE) the prevalence of doctor-diagnosed diabetes was second highest in Black Caribbean men and women, rates reflected in 2017-19 mortality data.
- In the 2004 HSE the prevalence of angina, heart attack, heart murmur, abnormal heart rhythm, and other heart trouble were all lower amongst Black Caribbean men than the general population. Only stroke (3.4%) was higher (general population, 2.4%).
- Amongst Black Caribbean women, angina (1.5%), heart attack (1.4%), heart murmur (2.7%), abnormal heart rhythm (2.8%), other heart trouble (2.3%), and stroke (1.8%) were all lower than for the general population, except for other heart trouble.

- Relative to the White population, Black Caribbean women had lower rates of breast, ovarian cervical cancer, and lung cancer but higher rate of endometrial cancer (but not significantly so).
- Black Caribbean men and women have significantly lower rates of lung cancer mortality than the White group; Black Caribbean men have significantly higher mortality rates for malignant neoplasm of the prostate; Black Caribbean women have significantly lower mortality rates for malignant neoplasm of breast.
- Black Caribbean and Black Other people in London were half as likely as White people to have COPD after adjusting for smoking rates.
- With respect to risks for haemoglobinopathies prior to screening, the chance that the couple are both carriers and require risk assessment is high when the family (ethnic) origins of both partners (mother and baby's father) are both Black Caribbean (1 in 35) and risks remain high (mainly higher than 1 in 100) when one parent is Black Caribbean.
- Compared with the White group, the incidence of dementia was 25% higher in Black Caribbean women and men, respectively. Mortality rates for dementia and Alzheimer's disease were amongst the highest for these groups.
- Evidence suggests that BME groups may have more unmet end of life care needs than people from White backgrounds and experience barriers to accessing good and personalised care.

The topics included in this include diabetes, cardiovascular disease, cancer, chronic obstructive pulmonary disease, dementia, end of life care, and palliative care.

2.7.1 The overall burden of mortality

ONS has released data on the number of deaths and age-standardised mortality rates (ASMR) per 100,000 for the five most common leading causes of death for Black Caribbean ethnic group by sex, age (those 65 years and above), deaths registered in England and Wales between 2017-19. Amongst males the five most common causes of death were, in rank order: Dementia and Alzheimer's disease (ASMR 558, 515.6-600.4); ischaemic heart diseases (ASMR 431.7, 393.7-469.7); malignant neoplasm of the prostate (ASMR 380.6, 344.3-416.8), cerebrovascular diseases (ASMR 277.6, 247.7-307.6); malignant neoplasms of trachea, bronchus and lung (ASMR 203.6, 176.0-231.1). Amongst females the five most common causes of death were: dementia and Alzheimer's disease (ASMR 548.8, 512.5-585.0); ischaemic heart diseases (ASMR 262.6, 237.2-287.9); cerebrovascular diseases (ASMR 243.4, 219.2-267.7); influenza and pneumonia (ASMR 125.5, 107.9-143.0); and hypertensive disease (ASMR 117.4, 100.4-134.3).

In the three calendar years 2012-14 malignant neoplasms (cancers) and circulatory (heart and related) diseases made up 60.6% of male and 53.3% of female deaths in ONS's linked study population[119]. Their contribution to total deaths varies by ethnic group, ranging from 64.7% of male deaths in the Black Caribbean ethnic group to 55.0% percent in the Mixed ethnic group, and 65.4% of female deaths in the Black African ethnic group to 53.1% in the White ethnic group.

2.7.2 Diabetes

According to the 2004 Health Survey for England, the prevalence of doctor-diagnosed diabetes (type 1 or 2) was high amongst the Black Caribbean group. The rate in men was 10.0%, only the Indian (10.1%) having a higher percentage (the rate for the general population was 4.3%). Amongst women, the rate was 8.4%, next to the highest (Pakistani, 8.6%) and well above the general population (3.4%). Type 2 diabetes accounted for the majority of cases. Black Caribbean men (along with Black African, Indian, Pakistani and Bangladeshi men) had higher prevalence of type 2 diabetes aged 35-54 and (except for Black African men) aged 55+ than the general population. Among women, type 2 diabetes was more common in Black Caribbean women (aged 55+).

ONS mortality data[120] provides information on age-standardised mortality rates by leading cause of death for 2017-19. Amongst males aged 65 years and older 'Black Caribbeans' had the 2nd highest mortality from diabetes out of 9 ethnic groups (ASMR 157.0, 134.6-179.4), substantially above White British (54.0, 52.7-55.3). Amongst Black Caribbean females, the ASMR was 107.6 (91.5-123.8), compared with White British (39.0, 38.1 to 39.9).

Diabetes-related co-morbidities in Black groups are similar to or lower than in White groups, except for higher rates of end-stage renal disease. Excess mortality associated with diabetes is lower in Blacks groups than in the White population.

A recent study[121] found little evidence of inequalities in the management of diabetes among Black patients at initial diagnosis, indicative of a wider trend of diminishing inequalities in diabetes care. Using a cohort study of 179,886 people with incident type 2 diabetes between 2004 and 2017 in the UK Clinical Practice Research Datalink, risk factor recording was better than or equivalent to White groups for 8/10 risk factors for Black groups ($p < 0.002$) and blood pressure, BMI, cholesterol, eGFR, and CVD risk levels were more favourable in groups other than White. Nazroo *et al.*'s[122] analyses of the national HSE data also found little evidence of important ethnic differences in outcomes of care for diabetes in primary care and community health services settings.

2.7.3 Cardiovascular Disease

Cardiovascular disease (CVD) is a leading cause of death nationally and in ethnic minority groups, causing 24 per cent of all deaths in England and Wales in 2019. Cardiovascular disease (CVD) is the collective term for diseases affecting the circulatory system, i.e., heart, arteries, blood vessels. Diabetes increases the risk of CVD almost two-fold.

The prevalence of angina in the 2004 survey was 3.4% in Black Caribbean men (4.8% in the general population). Heart attack (3.2%), heart murmur (1.6%), abnormal heart rhythm (3.8%), and other heart trouble (1.0%) were all lower than the general population. Only stroke (3.4%) was higher (general population, 2.4%). Amongst Black Caribbean women, angina (1.5%), heart attack (1.4%), heart murmur (2.7%), abnormal heart rhythm (2.8%), other heart trouble (2.3%), and stroke (1.8%) were all lower than for the general population, except for other heart trouble.

The prevalence of stroke was highest among informants aged 55 and over. In this age band Black Caribbean men had the highest prevalence (11.5%); amongst women Bangladeshi (11.9%) and Pakistani (10.1%) women had the highest prevalence.

Black groups in the UK generally have a significantly lower risk of heart disease compared to South Asian groups and the majority of the population, even though there is some evidence that they have a high prevalence of hypertension (see chapter 6). Lower cholesterol levels among people of African Caribbean compared with European origins may protect them against heart disease which is low in these populations. However, Black groups have higher-than-average incidence of hypertension and obesity levels are also higher in Black groups.

Black groups have lower than expected rates of access to and use of cardiovascular care.

Cerebrovascular diseases include stroke, carotid stenosis, vertebral stenosis and intracranial stenosis, aneurysms, and vascular malformations. Age-standardised mortality rates (ASMR) per 100,000 from cerebrovascular diseases amongst the population aged 65 years and over, 2017-19, was 277.6 (CI 247.7-307.6) in Black Caribbean males, higher than for White males but not significantly so (ASMR 260.8, CI 258.0-263.7). For Black Caribbean females the ASMR was 243.4 (95% CI 219.2-267.7), similar to the White group (247.2, 95% CI 245.0-249.5). It is notable that these data differ from those for migrants, Wild *et al.*[123], found that for migrants from the West Indies mortality for cerebrovascular disease for men (SMR 160 (148-174)) and also elevated for women (SMR 137 (125-149)).

For ischaemic heart diseases (also called coronary heart disease), the ASMR for Black Caribbean males was 431.7 (CI 393.7-469.7), significantly lower than for White males (607.7, CI 603.4-612.0). For Black Caribbean females the ASMR was 262.6 (CI 237.2-287.9), lower (but not significantly so) than that for White females (290.7, CI 288.2-293.2). The data reported by Wild *et al.*[124], are consistent with those for 2017-19: Ischaemic heart disease SMRs were relatively low for the West Indies country of birth group: 73 (68-77) for men and 96 (88-105) for women.

2.7.4 Cancers

Data on cancer incidence for Black Caribbeans and Black Other groups is limited. The latest data for England, 2013-17, is for pan-ethnic groups[125]. This only provides indicative evidence for Black Caribbeans as it is an aggregate of Black Caribbeans, Black Africans, and Other Black. Incidence rates for most cancer sites and ethnic group and sex combinations were lower in non-White minority ethnic groups compared with the corresponding White group. With respect to the Black group the exceptions were prostate cancer (2.1 times higher in males of Black ethnicity), myeloma (2.7–3.0 times higher in people of Black ethnicity), several gastrointestinal cancers (1.1–1.9 times higher in people of Black ethnicity), Hodgkin lymphoma (1.3 times higher in males of Black ethnicity), and thyroid cancers (1.2 times higher in people of Black ethnicity).

Amongst women Shirley *et al.*[126] compare the incidence of breast, ovarian, cervical and endometrial cancer in British Indians, Pakistanis, Bangladeshis, Black Africans, Black Caribbeans, Chinese, and Whites between 2001 and 2007. Incidence rates were calculated from 357,476 cancer registrations using mid-year population estimates from 2001 to 2007, ethnicity being obtained through linkage to the Hospital Episodes Statistics database. Incidence rate ratios were calculated, comparing the 6 minority ethnic groups to Whites and adjusted for age and income. Evidence of differences in incidence were found by ethnic group for all 4 cancers. For breast cancer the age standardised rate (ASR)/100,000 person-years for Black Caribbeans was 59.0. For ovary cancer, the ASR was 6.4, with an IRR of 0.56 (0.46 to 0.67). The ASR for cervical cancer was 5.2 and the reported IRR 0.64 (0.52 to 0.80). For endometrial cancer the ASR was 6.0 and the IRR 1.17 (1.01 to 1.34). Thus, relative to the White population, Black Caribbeans had lower rates of breast, ovarian and cervical cancer but higher rate of endometrial cancer (but not significantly so).

Amongst male cancers, the UK studies of prostate cancer incidence rates/ratios across ethnic groups consistently show that these are higher in the Black group compared with the White group but lower in the South Asian group. Some of these estimates are measured with imprecision because of the small number of cases or limited by the high proportion of cases with ethnicity unknown (37-41%). However, robust evidence[127] indicates that age-standardised rates per 100,000 were 56.4 (95% confidence interval [CI], 53.3 to 59.5) for the White group and 173 (95% CI, 156-190 per 100,000) for the Black Caribbean group, a 3.0-fold difference.

With respect to other cancers, Black Caribbean men (IRR 0.4) have incidence rates for lung cancer around half those of White men (=1.0), based on Thames Cancer Registry data for 1998-2003. Compared with White women, Black Caribbean women have much lower lung cancer incidence rates (an IRR of 0.25)[128].

The linking by ONS of 2011 Census and death registration data has yielded data on mortality by cause of death by ethnic group in the pre-coronavirus (COVID19) pandemic period. The analysis reported here was based on deaths in the three years 2017 to 2019 and limited to people aged 65 years and over (ONS 2021: extracted from ONS's pivot table). Table 3a and 3b show data for 5 malignant neoplasms by gender for Black Caribbeans and the White group.

Table 3A: Malignant neoplasms: Age-standardised mortality rates (ASMRs) per 100,000, by gender (Female) and age (65 and over), 2017-19

Ethnicity	All Malignant Neoplasms	Malignant neoplasm of colon, sigmoid, rectum, and anus	Malignant neoplasm of liver and intrahepatic bile ducts	Malignant neoplasm of the prostate	Malignant neoplasm of trachea, bronchus and lung
Black Caribbean	N/A	116.6	37.1	380.6	203.6
White	4,778.3	139.3	48.1	229.5	272.8

Table 3B: Malignant neoplasms: Age-standardised mortality rates (ASMRs) per 100,000, by gender (Female) and age (65 and over), 2017-19

Ethnicity	All Malignant Neoplasms	Malignant neoplasm of colon, sigmoid, rectum, and anus	Malignant neoplasm of liver and intrahepatic bile ducts	Malignant neoplasm of the prostate	Malignant neoplasm of trachea, bronchus and lung
Black Caribbean	N/A	86.9	19.9	78.4	64.5
White	3673.1	91.3	26.4	112.8	191.9

Source: ONS. Mortality from leading causes of death by ethnic group. Extracted from pivot table.

This most recent data shows that the ASMR for all neoplasms was significantly lower in Black Caribbean men and women than those in the White group. It also confirms that, compared with the White group, Black Caribbean men and women have significantly lower rates of lung cancer: differences in mortality clearly related to differences in smoking prevalence by ethnic group: see chapter 6), significantly higher ASMRs for malignant neoplasm of the prostate amongst Black Caribbean, and significantly lower ASMRs for malignant neoplasm of breast amongst Black Caribbean women.

2.7.5 Chronic Obstructive Pulmonary Disease

Chronic Obstructive Pulmonary Disease (COPD) accounts for 30,000 deaths a year. COPD is the name for a group of lung conditions that cause breathing difficulties. It includes emphysema – damage to the air sacs in the lungs. chronic bronchitis – long-term inflammation of the airways.

Gilkes *et al.*[129] assessed the prevalence and severity of COPD in ethnic groups, controlling for smoking (a risk factor for COPD), using a retrospective cross-sectional study comprising routinely collected primary care data in London. Among 358,614 patients in 47 general practices, 47.6% were White, 20% Black, and 5% Asian. Prevalence of COPD was 1.01% overall, 1.55% in the White group, 0.58% in Black, and 0.78% in Asian. COPD was less likely in the Black group (adjusted odds ratio [OR], 0.44; 95% confidence interval [CI] 0.39–0.51) and Asians (0.82; CI, 0.68–0.98) than the White group. Findings were also reported by ethnic subgroup: the adjusted OR for COPD diagnosis in Black Caribbeans (0.45, 0.38-0.52) and Black Other (0.26, 0.18-0.39), with Black Africans in between (0.32 (0.25-0.41)).

Thus, Black people in London were half as likely as White people to have COPD after adjusting for lower smoking rates in the Black group, Black COPD patients being less likely to be current smokers (OR, 0.56; CI, 0.44–0.71) and more likely to be never-smokers (OR, 4.9; CI, 3.4–7.1) (the smoking data is consistent with the data on adult smoking in chapter 6). Treatment of patients with similar disease severity was similar irrespective of ethnic origin, except that long-acting muscarinic antagonists were prescribed less in Black COPD patients (OR, 0.53, CI, 0.42–0.68). Black ethnicity was a predictor of poorer lung function (% predicted FEV1: B coefficient, -7.6; P,0.0001), an effect not seen when ethnic-specific predicted FEV1 values were used.

Bhopal *et al.*[130], used the a retrospective, cohort study (SHELS) that linked Scotland's hospitalization/death records on respiratory disorders to 4.65 million people in the 2001 Census (providing ethnic group) to investigate chronic obstructive pulmonary disease (COPD) from April 2001 to 2010 (the Caribbean, African and Black Scottish or Other Black were combined and termed 'African origin'). Age-adjusted rates per 100,000 person years and relative risks for first COPD event or readmission and death after hospitalization for the population >/=40 years were calculated. Age, Scottish Index of Multiple Deprivation (SIMD), and country of birth-adjusted RR and 95% CI for African origin males was 85.5 (58.6, 124.6) and for African origin females 100.3 (66.6, 150.9), similar to the White Scottish reference (=100.0). Thus, there was no significant difference in relative risks for first COPD event or death compared with the White Scottish population.

2.7.6 Sickle cell disease

Every year 300-400 children are born with the disease and currently there are 12-15,000 affected individuals in the UK. With respect to risks for haemoglobinopathies prior to screening, the chance that the couple are both carriers and require risk assessment is high when the family (ethnic) origins of both partners (mother and baby's father) are both Black Caribbean (1 in 35) and risks remain high (mainly higher than 1 in 100) when one parent is Black Caribbean[131, 132]. However, other ethnic, including mixed, groups are also at risk. While universal antenatal screening takes places in Britain in areas of high prevalence, the Family Origin Question (FOQ) (the relevant category in the FOQ is 'Caribbean Islands') is used

as a decision-making tool primarily to identify partners of high risk status in 'low prevalence' areas (a fetal prevalence of 1.5 cases per 10,000 pregnancies or below, where universal screening is not regarded as cost-effective) in antenatal screening for haemoglobin variants. The purpose of the early (pre-10 weeks gestation) antenatal screening programme and pre-conception counselling is to enable women/couples to make informed choices and decisions for their pregnancy and to provide appropriate referral and care for prenatal diagnosis with continuation of pregnancy or termination according to these choices.

2.7.7 Dementia

Dementia and Alzheimer's disease are leading causes of death in the general population and featured in the five most common causes for most ethnic groups and for both sexes since 2012 to 2014. The prevalence of dementia and Alzheimer's disease increases with age, with the conditions being most common in over 65-year olds. Dementia and Alzheimer's represents 12.9% (200,111 deaths in 2017 to 2019) of death registrations in the latest period within the UK.

Studies of the incidence of dementia report on the 'Black' group, which is heterogeneous with respect to mortality for dementia, Black Africans having notably lower rates than Black Caribbeans. For example, Pham *et al.*[133] compared incidence of dementia diagnosis by White, Black, and Asian ethnic groups and estimated the proportion of UK White and Black people developing dementia in 2015 who had a diagnosis for the first time in a UK-wide study. Compared with White women, the incidence of dementia diagnosis was 18% lower among Asian women (adjusted incidence rate ratio (IRR) 0.82, 95% CI 0.72–0.95) and 25% higher among Black women (IRR 1.25, 95% CI 1.07–1.46). For men, incidence of dementia diagnosis was 28% higher in the Black ethnic group (IRR 1.28, 95% CI 1.08–1.50) and 12% lower in the Asian ethnic group (IRR 0.88, 95% CI 0.76–1.01) relative to the White ethnic group.

Another measure of these conditions is the prevalence rates for a hospital-based comorbidity of Alzheimer's disease and/or dementia by ethnic group, England, March 2017 to May 2020. Black Caribbean males had a prevalence rate of 0.75%, the second highest rate after Bangladeshi males (0.86%) and well above the White rate (0.49%). The rate for Black Caribbean females (0.85%) was the highest of all ethnic groups and substantially higher than White females (0.58%).

ONS mortality data[134] provides information on age-standardised mortality rates by leading cause of death for England and Wales for 2017-19. Amongst males aged 65 years and older, the age-standardised mortality rate (ASMR) per 100,000 for Black Caribbeans for dementia and Alzheimer's disease as a leading cause of death was 558.0 (516.0-600.0). This was the highest out of 10 ethnic groups and close to the White rate. For Black Caribbean females, the ASMR was 549.0 (513.0-585.0), only two groups having higher rates. White females having the highest rates (647.2).

Truswell's[135] briefing paper on dementia care for Black and ethnic minority communities found that dementia is misunderstood and highly stigmatised in UK Black and minority ethnic communities. While some organisations have developed good practice in working with these communities, there is a need for a more developed structure to share the lessons from good practice, including a vision of a culturally appropriate approach to the dementia pathway that starts from raising awareness, leads to facilitating early diagnosis, and lasts into appropriate end-of-life care. The author argues an economic case for financing improvements in 'living well' with dementia for people in these communities, with targeted awareness raising and improvements in community-based support.

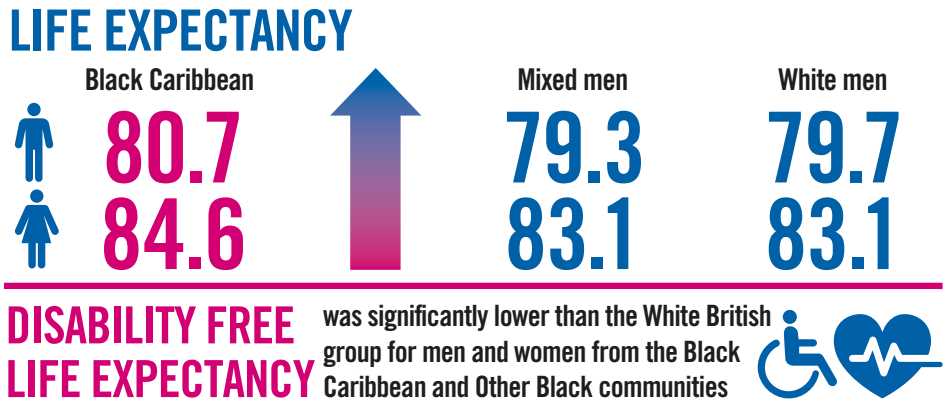
2.7.8 End of life and palliative care

Evidence suggests that Black, Asian and Multi-ethnic groups may have more unmet end of life care needs than people from White backgrounds and experience barriers to accessing good and personalised care[136, 137]. An analysis of data from the National Survey of Bereaved People (VOICES), which asked about care in the last three months of life in England, showed that people from Black and minority ethnic backgrounds, compared with White people, were more or as likely to receive help at home, less likely to rate overall care as outstanding or excellent, particularly among those who had spent time in a care home or hospice, more likely to die in hospital than a care home, but no more likely to die in a hospital than at home[138].

Some similar findings were reported by Koffman *et al.*[139]. Using mortality data for 93,375 cancer deaths of those aged ≥65 years in London from 2001–2010, Koffman *et al.*[140] found Black and minority ethnic groups are more likely to die in a hospital and less likely to die at home or in a hospice. Following adjustment hospital deaths were more likely for those born in Asia (Proportion ratio (PR 1.12[95%CI1.08–1.15]p<0.001) and Africa (PR 1.11[95%CI1.07–1.16]p<0.001). Hospice deaths were less likely for those born in Asia (PR 0.73 [0.68–0.80] p<0.001), Africa (PR 0.83[95%CI0.74–0.93] p<0.001), and 'other' geographical regions (PR 0.90[95% 0.82–0.98] p<0.001). Home deaths were less likely for those born in the Caribbean (PR 0.91[95%CI 0.85–0.98]p<0.001). It is not known whether these differences result from patient-centred preferences or other environment or service-related factors.

A literature review on palliative care services found that low uptake of palliative and end of life care services was commonly reported among minority ethnic groups. Potential explanatory factors included: lack of referrals; lack of knowledge about services; religious traditions and family values in conflict with the idea of palliative/hospice care. Other factors included structural barriers such as geographical location of inpatient hospices, social segregation and previous bad experiences of care[141].

The findings of the Care Quality Commission's review[142] of inequalities in end of life care for Black and minority ethnic groups identified a number of barriers, including a lack of understanding, knowledge and information about end of life care, lack of religious and cultural sensitivity, language barriers, and poor communication. Lack of knowledge and awareness about end of life care services and support may be a barrier to receiving good, personalised care and making choices about place of care. Amongst good practice examples, the Greater Manchester, Lancashire and South Cumbria Strategic Clinical Network has produced a film to raise awareness of the end of life care needs of Black, Asian and Multi-ethnic communities. Language (including family members being used as interpreters) and lack of cultural sensitivity were identified as a barrier to good end of life care. Religious and cultural needs are not always met (for example, a need for a female Muslim worker in the chaplaincy service). There were some examples of good practice, e.g. health and care services ensuring the timely release of the deceased person's body and death certificate so that families could make funeral arrangements quickly.



2.8 Closing the Gaps

Closing the Gaps Key Findings:

- In the Black Caribbean group men had relatively low life expectancy (80.7), but higher than Mixed men (79.3) and White men (79.7). Life expectancy for Black Caribbean women was 84.6, again only the Mixed and White groups having lower life expectancies (both 83.1)
- Disability free life expectancy was significantly lower than the White British group for men and women from the Black Caribbean and Other Black communities.

Topics included in this chapter are life expectancy, disability-free life expectancy, and healthy life expectancy.

The first experimental statistics for life expectancy at birth by ethnic group for England and Wales were issued by the Office for National Statistics in July 2021[143]. This was achieved by linking 2011 Census and death registration data to produce national estimates of life expectancy and mortality by cause of death by ethnic group in the pre-coronavirus (COVID-19) pandemic period of 2011-2014.

In this period both males and females in the White and Mixed ethnic groups had lower life expectancy at birth than all other ethnic groups. In the Black Caribbean group men had relatively low life expectancy (80.7), but higher than Mixed men (79.3) and White men (79.7). Life expectancy for Black Caribbean women was 84.6, again only the Mixed and White groups having lower life expectancies (both 83.1). The sex gap for Black Caribbeans was 3.9 years, higher than for the White group (3.4 years). The gap in life expectancy between ethnic groups was larger for females than males.

One reason why life expectancy in the Black African group (88.9, females; 83.8, males) is higher than that for Black Caribbeans may be the fact that they contain a higher proportion of more recent migrants and that people who migrate tend to be healthier than others (the so-called 'healthy migrant effect'). However, these are experimental statistics and the NHS Race and Health Observatory argues that they should be treated with caution[144]: they identify a number of problems that may have led to an underestimate of mortality rates and an overestimate of life expectancy for ethnic minority people compared with White people.

These findings are reasonably consistent with other estimates of life expectancy by ethnic group. Wohland *et al.*[145] calculated disability-free life expectancy (DFLE) and healthy life expectancy (HLE) in England and Wales by age and gender for five-year age groups for 16 ethnic groups by combining the 2001 Census data on ethnicity, self-reported limiting long-term illness and self-rated health using mortality by ethnic group estimated by two methods: the Standardised Illness Ratio (SIR) method and the Geographically Weighted Method (GWM). Ethnic groups with significantly higher DFLE at birth compared to the White British group were Chinese men and women, Other White men and women, Black African men, and men and women in the Other ethnic group category. DFLE was significantly lower than the White British group for men and women from the Bangladeshi, Pakistani, White and Black Caribbean, Black Caribbean, Other Mixed, Indian, Other Asian and Other Black communities.

THERE IS NO PUBLISHED LITERATURE ON A GREEN AND SUSTAINABLE FUTURE THAT CAN BE STRATIFIED BY ETHNIC GROUP OR COUNTRY OF BIRTH, WITH RESPECT TO THE BLACK CARIBBEAN POPULATION IN BIRMINGHAM

2.9 Contributing to a Green and Sustainable Future

There is no published literature on a green and sustainable future that can be stratified by ethnic group or country of birth, with respect to the Black Caribbean population in Birmingham. There are a couple of approaches that could be exploited by the Council. The English Index of Multiple Deprivation (IMD) comprises 7 domains, one of which, 'Living Environment' contains two dimensions. This domain accounts for 9.3% of the IMD weighting. The Living Environment Deprivation Domain measures the quality of the local environment. The indicators fall into two sub-domains. The 'indoors' living environment measures the quality of housing; while the 'outdoors' living environment contains measures of air quality and road traffic accidents. Another measure (not part of the IMD) could be constructed: distance from home to the nearest significant public green space (the latter can be broken down by type).

These data could be analysed at the Lower-Level Super Output Area or Electoral Ward Level. Knowing the number of, say, Black Caribbeans in each LLSOA or Ward, it should be possible to calculate the proportions of these population groups living at certain levels of air quality or traffic accident frequency. For access to green spaces, a measure of distance is needed from each LLSOA or Ward to the nearest green space. Other measures may, in time, become important, such as the locations of electric car public charging points.

In the first COVID-19 wave fully adjusted mortality rates for Black Caribbean men were amongst the highest and in the middle of the range for Black Caribbean women. In the second wave fully adjusted mortality rates were in the middle of the range for both Black Caribbean men and women. Males and females of Black Caribbean background were also at elevated risk in the third wave in fully adjusted rates

The cumulative weekly COVID-19 vaccine uptake (1st, 2nd, and 3rd doses, %) by ethnicity in those living and resident in England, aged 18 and over show that the 'Black' groups had the lowest rates:

58.3%	69.2%	61.9%	61.4%	91.0%
Black Caribbean	Black African	Any other Black background	Mixed: White and Black Caribbean	White British

ACCORDING TO THE NHS SURVEYS, BLACK AND BLACK BRITISH PEOPLE HAVE THE HIGHEST VACCINE HESITANCY LEVELS, ALTHOUGH THESE HAVE DECLINED: FROM IN JANUARY-FEBRUARY 2021 44% TO IN JUNE-JULY 2021

21%

2.10 Mitigating the Legacy of COVID

Mitigating the Legacy of COVID Key Findings:

- In the first COVID-19 wave fully adjusted mortality rates for Black Caribbean men were amongst the highest and in the middle of the range for Black Caribbean women. In the second wave fully adjusted mortality rates were in the middle of the range for both Black Caribbean men and women. Males and females of Black Caribbean background were also at elevated risk in the third wave in fully adjusted rates.
- The cumulative weekly COVID-19 vaccine uptake (1st, 2nd, and 3rd doses, %) by ethnicity in those living and resident in England, aged 18 and over show that the 'Black' groups had the lowest rates: Black Caribbean, 58.3%; Black African, 69.2%; and Any other Black background, 61.9%; and Mixed: White and Black Caribbean, 61.4%. These rates compare with White British, 91.0%.
- Black and Black British people have the highest vaccine hesitancy levels, although these have declined: from 44% for January-February 2021 to 21% for June-July 2021 according to the NHS surveys.

2.10.1 Indicators of COVID-19 mortality, vaccine uptake, and vaccine hesitancy

ONS has released mortality data for COVID 19 in the first (24 January 2020-11 September 2020) and second waves (12 September 2020-31 March 2021) of the pandemic[146]. In the first wave, as measured by age-adjusted hazard ratio, mortality was 3rd highest - after Black Africans and Bangladeshis - amongst nine ethnic groups for Black Caribbean males (2.66, 95% CI 2.44-2.90). The fully adjusted hazard ratio for Black Caribbean males was 1.40 (1.28-1.53), the second highest rate (after Black Africans). The age-adjusted hazard ratio for Black Caribbean females was 1.81 (1.63-2.03), fourth highest (after Black Africans, Pakistanis, and Bangladeshis). The fully adjusted hazard ratio for Black Caribbean females was 1.04 (0.93-1.17), around the middle of the range.

In the second wave the age-adjusted hazard ratio for Black Caribbean males was 1.69 and the fully adjusted ratio 1.19, amongst the middle of the range. For Black Caribbean females the age-adjusted hazard ratio was 1.35 and the fully adjusted ratio 1.01, in the middle of the range.

ONS's findings demonstrate that people from most ethnic minority groups have experienced greater rates of death involving COVID-19 compared with people of White British ethnic background during the coronavirus pandemic. While the patterns of excess COVID-19 mortality risk by ethnic group have changed over the course of the coronavirus pandemic, the Black African, Bangladeshi, Black Caribbean and Pakistani ethnic groups are among the groups with highest risk of COVID-19 mortality in all three waves. In the first wave, the risk of COVID-19 mortality was highest for the Black African group, whereas during the second and third waves, the risk was consistently highest among Bangladeshi men and women. Males and females of Black Caribbean and Black African background were at elevated risk in the third wave after adjusting for location, measures of disadvantage, occupation, living arrangements, pre-existing health conditions; after also adjusting for vaccination status, there was no evidence that the risk was greater than for the White British ethnic group.

Of hospitalised patients for COVID, Black Caribbeans may be at greater risk for death. In a recent study[147] of 951 patients admitted to two multi-ethnic, inner city acute district general hospitals over a 6-week period in 2020 with COVID, 284 died [30%]. Multivariable analyses showed age 60–70 [OR 2.3], age > 70 [OR 6.5], Black Caribbean [OR 1.6], and CHD [1.5] were independent risk factors for COVID deaths.

The National Audit Office[148] has provided data on COVID-19 vaccination update (two doses, %) for adults in England, as at 31st October 2021. Rates were lowest in the 'Black' groups: Black Caribbean, 49%; Black African, 56%; and Any Other Black Background, 49%. The Chinese also had a low rate (48%). These proportions are unadjusted for different age structures and proportions living in deprived areas. They compare with 86% for the White British group and 76% for the general population.

The above figures are consistent with those of the UK Health Security Agency's weekly COVID-19 surveillance report (UKHSA 24 February 2022)[149]. The cumulative weekly COVID-19 vaccine uptake (1st, 2nd, and 3rd doses, %) by ethnicity in those living and resident in England, aged 18 and over show that the 'Black' groups had the lowest rates: Black Caribbean, 58.3%; Black African, 69.2%; and Any other Black background, 61.9%; and Mixed: White and Black Caribbean, 61.4%. These rates compare with White British, 91.0%.

These findings are consistent with a study of ethnic inequalities in COVID-19 vaccine uptake and comparison to seasonal influenza vaccine uptake in Greater Manchester amongst 2.8 million patients[150]. In total, 83.64% (919,636/1,099,503) of eligible individuals received a COVID-19 vaccine. Uptake (1 December 2020 and 18 April 2021, 1st dose only) was

lower compared to the White British group for 15 of 16 minority ethnic groups, with particularly wide inequalities amongst the groups 'other Black background' (hazard ratio [HR] 0.42, 95% CI 0.40 to 0.44), Black African (HR 0.43, 95% CI 0.42 to 0.44), Arab (HR 0.43, 95% CI 0.40 to 0.48), and Black Caribbean (HR 0.43, 95% CI 0.42 to 0.45). Ethnic inequalities in COVID-19 vaccine uptake were concentrated amongst older and extremely clinically vulnerable adults, and the most income-deprived.

Black and Black British people have the highest vaccine hesitancy levels, although these have declined: from 44% for January-February 2021 to 21% for June-July 2021 according to the NHS surveys.

2.10.2 Attitudes to vaccination against COVID-19 in the general population

A key source of evidence on attitudes to vaccination against COVID-19 is the UK Household Longitudinal Study (also known as 'Understanding Society'), a nationally representative longitudinal household panel study, which interviews members on average yearly. Over the COVID-19 pandemic, participants were invited to complete a series of short web or telephone surveys to understand the changing impact of the COVID-19 pandemic on UK individuals, families and wider communities. Data from 11,708 participants aged 16 years+ who took part in the COVID-19 Wave 6 web survey collected in November 2020 have been analysed. The question asked: 'Imagine that a vaccine against COVID-19 was available for anyone who wanted it. How likely or unlikely would you be to take the vaccine?'. Possible responses were: Very likely, Likely, Unlikely, and Very unlikely.

Initial analysis of the data reported by QResearch (weighted to make it representative of the general population living outside of institutions) shows overall high intention to vaccinate with around 82% stating they were likely or very likely to take up a COVID-19 vaccine, and 18% unlikely or very unlikely. Females were more likely to be vaccine hesitant (21%) compared to males (15%). Younger age groups were more likely to be vaccine hesitant, with 28% being unlikely/very unlikely to take up a vaccine, while the highest intention to vaccinate was in the 75+ age group with 96% stating that they would be likely/very likely to be vaccinated. The data showed important differences by ethnic group. Vaccine hesitancy was highest in Black or Black British groups, with 71.8% stating they were unlikely/very unlikely to be vaccinated, and 28.2% indicating that they were likely/very likely. Pakistani/ Bangladeshi groups were the next most hesitant ethnic group with 42.3% unlikely/very unlikely to be vaccinated and 57.7% likely/very likely. The Mixed (32.4%) and Any other White background (including Eastern European) (26.4%) groups also had significant proportions indicating an unwillingness to be vaccinated. This compared with 15.6% in the White British or Irish group.

These differences persisted after adjustment for differences in age and gender. The outcome (odds ratio) for a very likely/likely response, where the reference group is White British/White Irish, was 0.072 (0.039-0.134) for the Black group. The adjusted odds ratio was also low for the Asian or Asian British - Pakistani/Bangladeshi group (0.378, 0.278-0.516).

QResearch[151] identify barriers to vaccine uptake among minority ethnic groups using the wider evidence base, including drawing upon the evidence of recent vaccination programmes, such as H1N1. They include: lower trust and confidence in vaccine efficacy and safety, trust also being undermined by structural and institutional racism and discrimination (low trust is particularly salient amongst Black communities); lower perception of risk; inconvenience and access barriers (including location of vaccine delivery, relative cost, time and distance to access vaccine); and household decision making and who receives vaccine information and offer.

2.10.3 Attitudes to vaccination against COVID-19 amongst healthcare workers

Healthcare workers are a priority group with respect to COVID-19 vaccination because of their frequent front-facing roles and consequent elevated risk. Woolf *et al.*[152] investigated ethnic differences in SARS-CoV-2 vaccine hesitancy in United Kingdom healthcare workers, using results from the UK-REACH prospective nationwide cohort study. 11,584 healthcare workers were included in the cohort analysis, 23% (2704) of whom reported vaccine hesitancy. Compared to White British healthcare workers (21.3% hesitant), healthcare workers from Black Caribbean (54.2%), Mixed White and Black Caribbean (38.1%), Black African (34.4%), Chinese (33.1%), Pakistani (30.4%), and White Other (28.7%) ethnic groups were significantly more likely to be hesitant. In adjusted analysis, Black Caribbean (aOR 3.37, 95% CI 2.11 - 5.37), Black African (aOR 2.05, 95% CI 1.49 - 2.82), White Other ethnic groups (aOR 1.48, 95% CI 1.19 - 1.84) were significantly more likely to be hesitant compared with the White British reference group.

Woolf *et al.*[153] also undertook a qualitative study of 99 participants in a multi-ethnic cohort of clinical and non-clinical UK healthcare workers to explore reasons for hesitancy. The qualitative data from these participants identified the following contributors to hesitancy: lack of trust in government and employers, safety concerns due to the speed of vaccine development, lack of ethnic diversity in vaccine studies, and confusing and conflicting information. Participants felt uptake in ethnic minority communities might be improved through inclusive communication, involving healthcare workers in the vaccine rollout, and promoting vaccination through trusted networks. The investigators concluded: 'Strategies to build trust and dispel myths surrounding the COVID-19 vaccine in these communities are urgently required. Emphasis should be placed on the safety and benefit of SARS-CoV-2 vaccination in pregnancy and in those with previous COVID-19. Public health communications should be inclusive, non-stigmatising and utilise trusted networks.

2.10.4 Interventions to increase vaccine uptake in minority ethnic communities

Based on a rapid review, QResearch[154] recommends a multifaceted and multimodal approach and targeted interventions that are designed to meet the specific needs of minority ethnic communities. These include: the use of trusted general practitioners and community health centres recommending and offering vaccines, including community leaders, community champions, and community forums as partners; clear information on how the vaccines work and on potential vaccine side effects; use of a range of educational resources - educational videos and narrative films - in multiple languages to increase awareness of risk, efficacy of vaccine and to tackle disinformation; engagement work to identify the appropriate settings (such as the workplace, community centres, and religious venues) and local barriers to accessing the vaccine; practical support to address loss of earnings due to travel or waiting time to obtain vaccine, transportation costs etc.; providing immunisations in community-based settings, places of worship, school-based programmes, door-to-door, and their own general practice; prompts and reminders in the form of letters and text messages; co-designed health messages conveyed to individuals within family and community networks that influence health behaviours within families; communication by healthcare workers, Community and Faith Leaders and Community Champions; and training for healthcare staff, including strategies for culturally tailored conversations.

3.0 Conclusion

This report has highlighted the inequalities that exist within the Commonwealth Caribbean community within the UK and in Birmingham. Most notably compared to White British counterparts, the community experience higher prevalence and mortality attributed to dementia and Alzheimer's, lower rates of employment, higher levels of obesity amongst females and higher rates of diabetes.

However, as identified within the Birmingham and Lewisham African and Caribbean Health Inequalities Review (BLACHIR), measurements of Black ethnic people may not always consider the needs of Black Caribbean or Black Other individuals. Services could consider evidence-based ethnic differences in outcome measures, such as using BMI versus waist-to-height measures. By ensuring that data collection is more reflective of the communities' needs and with help of this community health profile, we will have a greater understanding of the inequalities that exist within individuals from Commonwealth Member States within the Caribbean, which may strengthen the methods that we use to address such inequalities.

4.0 Appendix

Appendix 1: Raw Data Table of Figure 2: Age and sex structure of Black Caribbean residents in Birmingham, 2011

Age	Males	Females
0 to 4	1159	1238
5 to 7	878	775
8 to 9	581	515
10 to 14	1490	1475
15	342	300
16 to 17	665	668
18 to 19	659	650
20 to 24	1366	1578
25 to 29	1371	1719
30 to 34	1216	1571
35 to 39	1186	1612
40 to 44	1792	2402
45 to 49	2396	3101
50 to 54	1738	2219
55 to 59	1117	1271
60 to 64	520	730
65 to 69	642	826
70 to 74	941	1168
75 to 79	949	981
80 to 84	567	620
85 and over	299	354

Appendix 2: Raw Data Table of Figure 3: Age and sex structure of Black Other residents in Birmingham, 2011

Age	Males	Females
0 to 4	1138	1085
5 to 7	810	718
8 to 9	482	437
10 to 14	1196	1060
15	174	204
16 to 17	392	324
18 to 19	342	329
20 to 24	650	715
25 to 29	625	621
30 to 34	562	650
35 to 39	475	625
40 to 44	735	847
45 to 49	959	1003
50 to 54	376	422
55 to 59	99	112
60 to 64	54	80
65 to 69	61	69
70 to 74	47	78
75 to 79	46	42
80 to 84	26	35
85 and over	6	

Appendix 3: Black African/Caribbean/Black British: Black Other Ethnic Group: Country of birth by year of arrival. Geographical level: England and Wales.

Country of Birth	All usual Residents born in the UK	Arrived before 1981	Arrived 1981-2000	Arrived 2001-2006	Arrived 2007-2011
Total: Country of birth	7,505,010	12,972	26,973	32,118	16,488
Antigua and Barbuda	3,697	92	15	8	1
The Bahamas	1,812	3	4	3	6
Barbados	18,672	502	26	15	12
Bermuda	3,875	6	24	66	118
Belize	1,252	32	41	10	7
British Virgin Islands	262	1	2	3	10
Cayman Islands	784	0	1	5	9
Cuba	2,355	7	17	40	34
Dominica	6,359	154	32	9	2
Grenada	9,274	221	26	13	10
Guadeloupe	558	2	19	4	14
Guyana	21,417	1,697	558	347	87
Jamaica	160,095	3,758	1,038	569	136
Martinique	411	3	13	12	8
Montserrat	7,270	92	105	23	18
Netherlands Antilles	933	8	3	18	10
Aruba	596	14	1	0	1
St Kitts and Nevis	5,629	151	13	2	5
Anguilla	544	15	0	0	3
St Lucia	9,096	160	28	21	9
St Martin (French part)	126	1	4	2	1
St Vincent and the Grenadines	7,390	203	19	10	10
Trinidad and Tobago	22,872	724	441	223	116
Turks and Caicos Islands	100	0	0	3	3
United States	177,185	197	1,019	1,027	2,380
Caribbean (Not otherwise specified)	4,150	181	5	8	3

Appendix 4: Age and sex structure of Black Caribbean residents in Birmingham, 2011

Age	Males	Females
0 to 4	1159	1238
5 to 7	878	775
8 to 9	581	515
10 to 14	1490	1475
15	342	300
16 to 17	665	668
18 to 19	659	650
20 to 24	1366	1578
25 to 29	1371	1719
30 to 34	1216	1571
35 to 39	1186	1612
40 to 44	1792	2402
45 to 49	2396	3101
50 to 54	1738	2219
55 to 59	1117	1271
60 to 64	520	730
65 to 69	642	826
70 to 74	941	1168
75 to 79	949	981
80 to 84	567	620
85 and over	299	354

Appendix 5: Age and sex structure of Black Other residents in Birmingham, 2011.

Age	Males	Females
0 to 4	1138	1085
5 to 7	810	718
8 to 9	482	437
10 to 14	1196	1060
15	174	204
16 to 17	392	324
18 to 19	342	329
20 to 24	650	715
25 to 29	625	621
30 to 34	562	650
35 to 39	475	625
40 to 44	735	847
45 to 49	959	1003
50 to 54	376	422
55 to 59	99	112
60 to 64	54	80
65 to 69	61	69
70 to 74	47	78
75 to 79	46	42
80 to 84	26	35
85 and over	6	

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6.0 References

1 *Aspinall PJ. 2020. BAME (Black, Asian and minority ethnic): the 'new normal' in collective terminology. Journal of Epidemiology and Community Health. http://dx.doi.org/10.1136/jech-2020-215504*

2 *Simpson L, Jivraj S. Why has ethnic diversity grown? In: Ethnic Identity and Inequalities in Britain. The dynamics of diversity. Eds. S Jivraj and L Simpson. Bristol: Policy Press, 2015, pp.33-47.*

3 *Coleman D and Dubuc S. The fertility of ethnic minority populations in the United Kingdom, 1960s-2006. Population Studies 2010; 64(1): 19-41*

4 *Bécares L, Kapadia D, Nazroo J. Exclusion from population studies is a form of institutional racism. BMJ 2020;368:m212.*

5 *Knight M, Bunch K, Tuffnell D, Shakespeare J, Kotnis R, Kenyon S, Kurinczuk JJ (Eds.) on behalf of MBRRACE-UK. Saving Lives, Improving Mothers' Care - Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2015-17. Oxford: National Perinatal Epidemiology Unit, University of Oxford 2019.*

6 *Raleigh VS, Holmes J. The health of people from ethnic minority groups in England. London: The King's Fund, 2021.*

7 *Nair M, Kurinczuk JJ, Knight M. Ethnic Variations in Severe Maternal Morbidity in the UK– A Case Control Study. Plos One 2014; 9(4): e95086. doi:10.1371/journal.pone.0095086.*

8 *Cresswell JA, Yu G, Hatherall B, Morris J, Jamal F, Harden A & Renton A (2013). Predictors of the timing of initiation of antenatal care in an ethnically diverse urban cohort in the UK. BMC Pregnancy and Childbirth 13(1): 103. doi: 10.1186/1471- 2393-13-103.*

9 *Dharni N, Armstrong D, Chung-Faye G, Wright AJ. Factors influencing participation in colorectal cancer screening-a qualitative study in an ethnic and socio-economically diverse inner city population. Health Expect. 2017 Aug;20(4):608-617. doi: 10.1111/hex.12489. Epub 2016 Aug 22. PMID: 27550367; PMCID: PMC5513014.Edge D, Baker D, Rodgers A. Perinatal depression among Black Caribbean women. Health and Social Care in the Community 2004; 12(5): 430-8.*

10 *ONS. Births and infant mortality by ethnicity in England and Wales: 2007 to 2019. Live births, stillbirths, infant deaths by ethnicity of the baby occurring annually in England and Wales. London: ONS, 2021 (26 May). Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/childhealth/articles/birthsandinfantmortalitybyethnicityinenglandandwales/2007to2019.*

11 *Matthews RJ, Draper ES, Manktelow BN, Kurinczuk JJ, Fenton AC, Dunkley-Bent J, Gallimore I, Smith LK, MBRRACE-UK Collaboration. Understanding ethnic inequalities in stillbirth rates: a UK population-based cohort study. BMJ Open 2022 Mar 9;12(2):e057412. doi: 10.1136/bmjopen-2021- 057412.*

12 *Henderson J, Gao H and Maggie Redshaw M. Experiencing maternity care: the care received and perceptions of women from different ethnic groups. BMC Pregnancy and Childbirth 2013, 13:196 http://www.biomedcentral.com/1471-2393/13/196.*

13 *QResearch. Factors influencing COVID-19 vaccine uptake among minority ethnic groups. 2021. Accessed at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/952716/s0979-factors-influencing-vaccine-uptake-minority-ethnic-groups.pdf*

14 *NHS Digital. National Child Measurement Programme, England 2020/21 School Year. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2020-21-school-year#*

15 *ONS. Child poverty and education outcomes by ethnicity. London: ONS, February 2020. Accessed at: https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/compendium/economicreview/february2020/childpovertyandeducationoutcomesbyethnicity*

16 *Platt L. COVID-19 and the mortality rates of different ethnic groups in England. London: LSE, May 2021.*

17 *Francis-Devine B, Danechi S, Tyler G. Food poverty: Households, food banks and free school meals. Briefing Paper Number 9209. London: House of Commons Library, 30 April 2021.*

18 *Mayor of London and London Assembly. Use of foodbanks by BAME Londoners. Mayor's Question Time. Accessed at: https://www.london.gov.uk/questions/2020/3825.*

19 *Institute of Race Relations, BME statistics on poverty and housing and employment, 2020, https://irr.org.uk/research/statistics/poverty/*

20 *GOV.UK. 2022. 'Create your own tables.' Explore education statistics. Accessed at: https://explore-education-statistics.service.gov.uk/data-tables/characteristics-of-children-in-need*

21 *GOV.UK. 2022. 'Create your own tables.' Explore education statistics. Accessed at: https://explore-education-statistics.service.gov.uk/data-tables/characteristics-of-children-in-need*

22 *Public Health England. Public Health Outcomes Framework: Health Equity Report Focus on ethnicity. London: Public Health England, 2017.*

23 *Public Health England. Public Health Outcomes Framework: Health Equity Report Focus on ethnicity. London: Public Health England, 2017.*

24 *Health and Social Care Information Centre. Mental health bulletin. Annual report fromMHMDS returns 2013-14. Leeds, England: HSCIC, 2014.*

25 *Health and Social Care Information Centre. Mental health bulletin. Annual report fromMHMDS returns 2013-14. Leeds, England: HSCIC, 2014.*

26 *NHS Digital. Adult Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2014. ONS & NHS Digital, 2016. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/adult-psychiatric-morbidity-survey/adult-psychiatric-morbidity-survey-survey-of-mental-health-and-wellbeing-england-2014*

27 *Health & Social Care Information Centre. Psychological Therapies, England: Annual Report on the Use of Improving Access to Psychological Therapies Services-2012/13 Experimental Statistics. Health & Social Care Information Centre; 2014. Accessed October 24, 2021.*

28 *Harwood H, Rhead R, Chui Z, et al. Variations by ethnicity in referral and treatment pathways for IAPT service users in South London. Psychological Medicine. Published online 2021:1-12. doi:10.1017/ S003329172100251*

29 *Beck, Andrew & Naz, Saiqa & Jankowska, Maja & Brooks-Ucheaga, Michelle. (2019). Black, Asian, Minority, Ethnic (BAME) IAPT POSITIVE PRACTICE GUIDE-short version.*

30 *Das-Munshi J, Bhugra D, Crawford MJ. Ethnic minority inequalities in access to treatments for schizophrenia and schizoaffective disorders: findings from a nationally representative cross-sectional study. BMC Med. 2018;16(1):1-10. doi:10.1186/S12916-018-1035-5.*

31 *Morris RM, Sellwood W, Edge D, et al. Ethnicity and impact on the receipt of cognitive–behavioural therapy in people with psychosis or bipolar disorder: an English cohort study. BMJ Open. 2020;10(12):e034913. doi:10.1136/BMJOPEN-2019-034913*

32 *Byrne M, Codjoe L, Morgan C, et al. The relationship between ethnicity and service access, treatment uptake and the incidence of psychosis among people at ultra high risk for psychosis. Psychiatry Res. 2019;272(February 2018):618-627. doi:10.1016/j.psychres.2018.12.111*

33 *Mercer L, Evans L, Turton R, Beck A. Psychological Therapy in Secondary Mental Health Care: Access and Outcomes by Ethnic Group. Journal of Racial and Ethnic Health Disparities. 2019;6(2):419-426. doi:10.1007/S40615-018-00539-8.*

34 *Mind. We Still Need to Talk. Mind, 2013.*

35 *Crawford MJ, Thana L, Farquharson L, et al. Patient experience of negative effects of psychological treatment: results of a national survey. Br J Psychiatry 2016;208(3):260-265. doi:10.1192/BJP. BP.114.162628.*

36 *McKenzie K. Being Black is bad for your health. The Guardian, 12 January 2008.*

37 *Fearon, P., Kirkbride, J.B., Morgan, C., Lloyd, T, Hutchinson, G., Tarrant, J., Fung, W.L., Holloway, J., Mallett, R., Harrison, G., Leff, J., Jones, P.B., Murray, R.M., AESOP Study Group (2006) 'Incidence of schizophrenia and other psychoses in ethnic minority groups: results from the MRC AESOP study', Psychol Med 36, 1541-50.*

38 *Oduola S, Das-Munshi J, Bourque F, Gayer-Anderson C, Tsang J, Murray RM, Craig TKJ, Morgan C (2021). Change in incidence rates for psychosis in different ethnic groups in south London: findings from the Clinical Record Interactive Search-First Episode Psychosis (CRIS-FEP) study. Psychological Medicine 51, 300–309. https://doi.org/10.1017/S0033291719003234*

39 *Bhopal R, Steiner MFC, Cezard G, Bansal N, Fischbacher C, Simpson CR, Douglas A, Sheikh A , on behalf of the SHELS researchers Bhopal, R., et al., (2015), 'Risk of respiratory hospitalization and death, readmission and subsequent mortality: Scottish health and ethnicity linkage study'. European Journal of Public Health, 25(5): p. 769-74.*

40 *Cantor-Graae, E., Selten, J.P. (2005) 'Schizophrenia and migration: a meta-analysis and review', Am J Psychiatry 162, 12-24.*

41 *Cantor-Graae, E. (2007) 'Is there an increased risk of psychotic illness in ethnic minority groups in the UK', Evidence-Based Mental Health 10, 95.*

42 *Kapadia D, Zhang J, Salway S, Nazroo J, Booth A, Villarroel-Williams, Bécares L, & Esmail A. Ethnic Inequalities in Healthcare: A Rapid Evidence Review. London: NHS Race and Health Observatory, February 2022.*

43 *Bailey NV, Tribe R. A qualitative study to explore the help-seeking views relating to depression among older Black Caribbean adults living in the UK. Int Rev Psychiatry. 2021;33(1-2):113-118. doi:10. 1080/09540261.2020.1761138.*

44 *Kalathil J, Collier B, Bhakta R, Daniel O, Joseph D, Trivedi P. Recovery and Resilience: African, African-Caribbean and South Asian Women's Narratives of Recovering from Mental Distress. Mental Health Foundation, 2011.*

45 *Shefer G, Rose D, Nellums L, Thornicroft G, Henderson C, Evans-Lacko S. 'Our community is the worst': the influence of cultural beliefs on stigma, relationships with family and help-seeking in three ethnic communities in London. Int J Soc Psychiatry. 2013 Sep;59(6):535-44. doi: 10.1177/0020764012443759. Epub 2012 May 15. PMID: 22588248.*

46 *Sisley EJ, Hutton JM, Louise Goodbody C, Brown JSL. An interpretative phenomenological analysis of African Caribbean women's experiences and management of emotional distress. Health & Social Care in the Community. 2011;19(4):392-402. doi:10.1111/j.1365-2524.2010.00986.*

47 *Islam Z, Rabiee F, Singh SP. Black and Minority Ethnic Groups' Perception and Experience of Early Intervention in Psychosis Services in the United Kingdom. J Cross Cult Psychol. 2015;46(5):737-753. doi:10.1177/0022022115575737*

48 *Kapadia D, Zhang J, Salway S, Nazroo J, Booth A, Villarroel-Williams, Bécares L, & Esmail A. Ethnic Inequalities in Healthcare: A Rapid Evidence Review. London: NHS Race and Health Observatory, February 2022.*

49 *Karlsen S, Millward D, Sandford A. Investigating ethnic differences in current cigarette smoking over time using the health surveys for England. European Journal of Public Health 2011; 22(2): 254–256.*

50 *Aspinall PJ and Mitton L. (2014) 'Smoking Prevalence and the Changing Risk Profiles in the UK Ethnic and Migrant Minority Populations: Implications for Stop Smoking Services', Public Health 128(3), 297-306.*

51 *Ipsos MORI. Health and Wellbeing of 15 year olds in England: Smoking prevalence – findings from the What About YOUth? Survey 2014. Health and Social Care Information Centre, 2015.*

52 *NHS Digital. 2019. Smoking, drinking and drug use among young people, England, 2018. Part 6, data tables – young people who drink. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/smoking-drinking-and-drug-use-among-young-people-in-england/2018*

53 *Nuffield Trust. How do quit rates vary by gender and ethnicity? Quality Watch. London: Nuffield Trust, October 2015.*

54 *Bowles C. Is Access to NHS Stop Smoking Services in London Equitable? An analysis by equality Groups. Technical Report. London: London Health Observatory, 2008.*

55 *Bowles C, DePonte P, Fitzpatrick J. Stop Gaps: Equity of access to London's stop smoking services. London: London Health Observatory, 2009.*

56 *NHS Digital & National Statistics. Health Survey for England 2014, vol. 1, Chapter 8: Elizabeth Fuller. Adult alcohol consumption. December 2015. Accessed at: https://files.digital.nhs.uk/publicationimport/pub19xxx/pub19295/hse2014-ch8-adult-alc-con.pdf*

57 *NHS Digital. 2019. Smoking, drinking and drug use among young people, England, 2018. Part 6, data tables – young people who drink. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/smoking-drinking-and-drug-use-among-young-people-in-england/2018*

58 *NHS Digital. Adult Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2014. ONS & NHS Digital, 2016. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/adult-psychiatric-morbidity-survey/adult-psychiatric-morbidity-survey-survey-of-mental-health-and-wellbeing-england-2014*

59 *Home Office. Drug Misuse: Findings from the 2013/14 Crime Survey for England and Wales. London: Home Office, July 2014.*

60 *NHS Digital. 2019. Smoking, drinking and drug use among young people, England, 2018. Part 6, data tables – young people who drink. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/smoking-drinking-and-drug-use-among-young-people-in-england/2018*

61 *Jayakodya AA, Vinera RM, Haines MM , Bhui KS, J.A. Head JA, Taylor SJC, Booyd R, Klineberg E, Clark C , Stansfeld SA. Illicit and traditional drug use among ethnic minority adolescents in East London. Public Health 2006; 120: 329–33.*

62 *Afuwape SA, Johnson S, Craig TJK, Miles H, Leese M, Mohan R, Thornicroft G. Ethnic differences among a community cohort of individuals with dual diagnosis in South London. Journal of Mental Health 2006; 15(5): 551-567.*

63 *Modesti PA, Reboldi G, Cappuccio FP, Agyemang C, Remuzzi G, Rapi S, Perruolo E, Parati G. Panethnic Differences in Blood Pressure in Europe: A Systematic Review and Meta-Analysis. PloS one 2016;11(1):e0147601.*

64 *Raleigh VS, Holmes J. The health of people from ethnic minority groups in England. London: The King's Fund, 2021.*

65 *Department for Digital, Culture, Media and Sport/Sport England. Active Lives Survey, 2018, published 2019. Accessed at: https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/healthy-eating-of-5-a-day-among-adults/latest*

66 *Wang S, Li S. Exploring Generational Differences of British Ethnic Minorities in Smoking Behavior, Frequency of Alcohol Consumption, and Dietary Style. International Journal of Environmental Research and Public Health 2019; 16 , 2241; doi:10.3390/ijerph16122241.*

67 *Prayogo E, Chater A, Chapman S, Barker M , Rahmawati N, Waterfall T, Grimble G. Who uses foodbanks and why? Exploring the impact of financial strain and adverse life events on food insecurity'. Journal of Public Health Journal of Public Health 2017; 40(4): 676-683. doi:10.1093/pubmed/fdx13340:4.*

68 *Weekes T, Spoor E, Weal R, and Moffet G. Lockdown, lifelines and the long haul ahead: The impact of Covid-19 on food banks in the Trussell Trust network. Trussell Trust Network, 2020.*

69 *Department for Digital, Culture, Media and Sport/Sport England. Active Lives Survey, 2018, published 2019. Accessed at: https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/healthy-eating-of-5-a-day-among-adults/latest*

70 *Bécares, L (2013). Which ethnic groups have the poorest health? Ethnic health inequalities 1991 to 2011. Dynamics of diversity. Evidence from the 2011 Census. Manchester, England: ESRC Centre on Dynamics of Ethnicity.*

71 *Bécares, L (2015). Which ethnic groups have the poorest health? In J Jivraj & L Simpson (eds.), Ethnic identity and inequalities in Britain. The dynamics of diversity (pp. 123-139). Bristol, England: Policy Press.*

72 *Nazroo J et al. The health of Britain's ethnic minorities: Findings from a national survey. London: Policy Studies Institute, 1997.*

73 *Platt L. COVID-19 and the mortality rates of different ethnic groups in England. London: LSE, May 2021.*

74 *Roberts N, Bolton P. Educational outcomes of Black pupils and students. Briefing Paper Number 09023, 8 October 2020. London: House of Commons Library.*

75 *Lymperopoulou K, Parameshwaran M. Is there an ethnic group educational gap? In: Jivraj S & Simpson L (eds.). Ethnic Identity and Inequalities in Britain. The dynamics of diversity. Bristol: Policy Press, 20115, pp. 181-198.*

76 *Demie F. Black Caribbean Achievement in Schools in England. Research Brief. London: London Borough of Lambeth, February 2018.*

77 *Strand S. Ethnic, socio-economic and sex inequalities in educational achievement at age 16: An analysis of the Second Longitudinal Study of Young People in England (LSYPE2). Oxford: Department of Education, University of Oxford, February 2021.*

78 *Business in the Community (2010) Race into Higher Education: Today's Diverse Generation into Tomorrow's Workforce. London: BITC.*

79 *Boliver V. Exploring ethnic inequalities in admission to Russell Group universities. Sociology 50(2): 247-266.*

80 *Boliver V. Exploring ethnic inequalities in admission to Russell Group universities. Sociology 50(2): 247-266.*

81 *Finney, N., Harries, B. (2015) 'Which ethnic groups are hardest hit by the housing crisis?' In S Jivraj and L Simpson (eds.) Ethnic Identity and Inequalities in Britain: The Dynamics of Diversity (Bristol: Policy Press), 141-160.*

82 *Finney, N., Harries, B. (2015) 'Which ethnic groups are hardest hit by the housing crisis?' In S Jivraj and L Simpson (eds.) Ethnic Identity and Inequalities in Britain: The Dynamics of Diversity (Bristol: Policy Press), 141-160.*

83 *Finney, N., Harries, B. (2015) 'Which ethnic groups are hardest hit by the housing crisis?' In S Jivraj and L Simpson (eds.) Ethnic Identity and Inequalities in Britain: The Dynamics of Diversity (Bristol: Policy Press), 141-160.*

84 *Ministry of Housing, Communities and Local Government, Overcrowded Households, September 2020, https://www.ethnicity-facts-figures.service.gov.uk/housing/housing-conditions/overcrowded-households/latest#by-ethnicity*

85 *Kapadia D, Nazroo J, and Clark K. Have ethnic inequalities in the labour market persisted? In: Ethnic Identity and Inequalities in Britain: The dynamics off diversity. Eds. S Jivraj and L Simpson. Bristol: Policy Press, 2015, pp. 161-179.*

86 *Bansal N, Bhopal RS, Steiner MFC, Brewster DH. Major ethnic group differences in breast cancer screening uptake in Scotland are not extinguished by adjustment for indices of geographical residence, area deprivation, long-term illness and education. British Journal of Cancer 2012 Apr 10; 106(8): 1361–1366*

87 *Jack RH, Møller H, Robson T, et al. Breast cancer screening uptake among women from different ethnic groups in London: a population-based cohort study. BMJ Open 2014;4: e005586. doi:10.1136/ bmjopen-2014-005586.*

88 *Cancer Research UK, Black African women almost twice as likely to be diagnosed with late stage breast cancer compared to white women, 2016, https://news.cancerresearchuk.org/2016/11/16/black-african-women-almost-twice-as-likely-to-be-diagnosed-with-late-stage-breast-cancer-compared-to/#:~:text=Black%20African%20women%20are%20nearly%20twice%20as%20likely,Cancer%20Research%20UK%20and%20Public%20Health%20England%20released.*

89 *Moser K, Patnick J, Beral V. Inequalities in reported use of breast and cervical screening in Great Britain: analysis of cross sectional survey data. BMJ 2009;338:b2025 doi:10.1136/bmj.b2025*

90 *Webb R, Richardson J, Esmail A, and Pickle A. Uptake for cervical screening by ethnicity and place-of-birth: a population-based cross-sectional study. Journal of Public Health 2004; 26(3):293-296. DOI: 10.1093/pubmed/fdh128*

91 *Ekechi C, Olaitan A, Ellis R, Koris J, Amajuoyi A, and Marlow LAV. Knowledge of cervical cancer and attendance at cervical cancer screening: a survey of Black women in London. BMC Public Health 2014, 14:1096 http://www.biomedcentral.com/1471-2458/14/1096*

92 *Nelson M, Patton A, Robb K, et al. Experiences of cervical screening participation and nonparticipation in women from minority ethnic populations in Scotland. Health Expect. 2021;24:1459–1472. https://doi.org/10.1111/hex.13287*

93 *Waller J, Bartoszek M, Marlow L, Wardle J. Barriers to cervical cancer screening attendance in England: a population-based survey. J Med Screen. 2009;16(4):199-204. doi: 10.1258/jms.2009.009073. PMID: 20054095.*

94 *Campbell C, Douglas A, Williams L, Cezard G, Brewster DH, Buchanan D, Robb K, Stanners G, Weller D, Steele RJ, Steiner M, Bhopal R. Are there ethnic and religious variations in uptake of bowel cancer screening? A retrospective cohort study among 1.7 million people in Scotland. BMJ Open. 2020 Oct 7;10(10):e037011. doi: 10.1136/bmjopen-2020-037011. PMID: 33033017; PMCID: PMC7542953.*

95 *Singh HKSI, Lal N, Majeed A, Pawa N. Ethnic disparities in the uptake of colorectal cancer screening: An analysis of the West London population. Colorectal Disease. First published: 20 April 2021. https://doi.org/10.1111/codi.15682*

96 *Dharni N, Armstrong D, Chung-Faye G, Wright AJ. Factors influencing participation in colorectal cancer screening-a qualitative study in an ethnic and socio-economically diverse inner city population. Health Expect. 2017 Aug;20(4):608-617. doi: 10.1111/hex.12489. Epub 2016 Aug 22. PMID: 27550367; PMCID: PMC5513014.*

97 *Davies E, Crilly M, Manson P, on behalf of the AAA Inequalities Project Group. Factors influencing attendance at Abdominal Aortic Aneurysm (AAA) Screening and interventions to reduce inequalities. November 2017. Accessed at: https://phescreening.blog.gov.uk/wp-content/uploads/sites/152/2018/03/Factors-influencing-AAA-screening-attendance-systematic-review.pdf*

98 *Porter, T., Interventions to reduce inequity and inequality in accessing national screening programmes: A Report for the UK National Screening Committee, 2008.*

99 *Jacomelli J, Summers L, Stevenson A, et al (2017) Inequalities in abdominal aortic aneurysm screening in England: effects of social deprivation and ethnicity. European Journal of Vascular and Endovascular Surgery, 53(6), pp. 837-843*

100 *Ahmad M, Reading K, Gannon MX. Improving Abdominal Aortic Aneurysm (AAA) Screening Uptake through Patient Engagement-Analysis and Outcomes of Strategies to Improve Uptake at a Regional Program Level. Annals of Vascular Surgery 2021 Apr;72:488-497. doi: 10.1016/j.avsg.2020.08.146.*

101 *Ben-Shlomo Y, Evans S, Ibrahim F, Patel B, Anson K, Chinegwundoh F, Corbishley C, Dorling D, Thomas B, Gillatt D, Kirby R, Muir G, Nargund V, Popert R, Metcalfe C, Persad R; PROCESS study group. The risk of prostate cancer amongst Black men in the United Kingdom: the PROCESS cohort study. Eur Urol. 2008 Jan;53(1):99-105. doi: 10.1016/j.eururo.2007.02.047. Epub 2007 Mar 1. PMID: 17368710.*

102 *NHS Digital. Statistics on NHS Health Checks broken down by age, gender and ethnicity for the first time. 17 October 2019. Accessed at: https://digital.nhs.uk/news/2019/nhs-health-checks*

103 *Cook EJ, Sharp C, Randhawa G, Guppy A, Cox J. Who uses NHS health checks? Investigating the impact of ethnicity and gender and method of invitation on uptake of NHS health check. BMC Int J Equity Health. 2016; 15:13.*

104 *UK Health Security Agency. 2021. HIV testing, new HIV diagnoses, outcomes and quality of care for people accessing HIV services: 2021 report. The annual official statistics data release (data to end of December 2020) 1 December 2021.*

105 *Public Health England. Public Health England. New STI diagnoses and rates by gender, sexual risk, age group and ethnic group, 2016-2020. 7 September 2021. Accessed at: https://www.gov.uk/government/statistics/sexually-transmitted-infections-stis-annual-data-tables.*

106 *Public Health England. Public Health England. New STI diagnoses and rates by gender, sexual risk, age group and ethnic group, 2016-2020. 7 September 2021. Accessed at: https://www.gov.uk/government/statistics/sexually-transmitted-infections-stis-annual-data-tables.*

107 *Public Health England. Public Health England. New STI diagnoses and rates by gender, sexual risk, age group and ethnic group, 2016-2020. 7 September 2021. Accessed at: https://www.gov.uk/government/statistics/sexually-transmitted-infections-stis-annual-data-tables.*

108 *Fenton KA, Mercer CH, McManus S, Erens B, Byron CJ, and Copas AJ. Sexual behaviour in Britain: Ethnic variations in high-risk behaviour and STI acquisition risk. Lancet 2005; 365(9466): 1246-1255.*

109 *Low N, Sterne JAC, and Barlow D. Inequalities in rates of gonorrhoea and chlamydia between Black ethnic groups in south east London: Cross sectional study. Sexually Transmitted Infections 2001; 77:15-20.*

110 *Aspinall PJ and Jacobson B. Ethnic disparities in health and health care: a focussed review of the evidence and selected examples of good practice [commissioned by Department of Health]. Canterbury: CHSS, 2004.*

111 *UK Health Security Agency, Tuberculosis in England: 2021 Report, 2021*

112 *Hayward S, Harding RM, McShane H and Tanner R. Factors influencing the higher incidence of tuberculosis among migrants and ethnic minorities in the UK [version 2; referees: 2 approved] F1000Research 2018, 7:461 (doi: 10.12688/f1000research.14476.2).*

113 *Public Health England. Public Health Outcomes Framework: Health Equity Report Focus on ethnicity. London: Public Health England, 2017.*

114 *Office For National statistics, Domestic Abuse, June 2020, https://www.ethnicity-facts-figures.service.gov.uk/crime-justice-and-the-law/crime-and-reoffending/domestic-abuse/latest#by-ethnicity*

115 *QResearch. Factors influencing COVID-19 vaccine uptake among minority ethnic groups. 2021. Accessed at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/952716/s0979-factors-influencing-vaccine-uptake-minority-ethnic-groups.pdf*

116 *Tan, Pui San and Patone, Martina and Clift, Ash Kieran and Dambha-Miller, Hajira and Saatci, Defne and Ranger, Tom and Garriga, Cesar and Zaccardi, Francesco and Shah, Baiju R. and Coupland, Carol and Griffin, Simon and Khunti, Kamlesh and Hippisley-Cox, Julia, Influenza, Shingles and Pneumococcal Vaccine Uptake, Offer and Refusal in Adult Populations at High-Risk for COVID-19: A UK Population-Based Cohort Study. Available at SSRN: https://ssrn.com/abstract=3783784 or http://dx.doi.org/10.2139/ssrn.3783784*

117 *UKHSA. UKHSA calls for everyone to get their flu jab this week. Press release. 5 Dec. 2021.*

118 *Watkinson RE, Williams R, Gillibrand S, Sanders C, Sutton M (2022) Ethnic inequalities in COVID-19 vaccine uptake and comparison to seasonal influenza vaccine uptake in Greater Manchester, UK: A cohort study. PLoS Med 19(3): e1003932. https://doi.org/10.1371/journal.pmed.1003932*

119 *Office for National Statistics. ONS 26 July 2021. Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014#life-expectancy-at-birth-2011-to-2014.*

120 *Office for National Statistics. ONS 26 July 2021. Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014#life-expectancy-at-birth-2011-to-2014.*

121 *Mathur R, Palla L, Farmer RE, Chaturvedi N, Smeeth L. Ethnic differences in the severity and clinical management of type 2 diabetes at time of diagnosis: A cohort study in the UK Clinical Practice Research Datalink. Diabetes Res Clin Pract. 2020.Feb;160:108006. doi:10.1016/j.diabres.2020.108006. Epub 2020 Jan 7.*

122 *Nazroo J, Falaschetti E, Pierce M, et al. Ethnic inequalities in access to and outcomes of health care: analysis of the health survey for England. Journal of Epidemiology & Community Health 2009;63(12):1022–1027.*

123 *Wild SH, Fischbacher C, Brock A, Griffiths C, & BBhopal R. Mortality from all causes and circulatory disease by country of birth in England and Wales, 2001-2003. Journal of Public Health 2007; 29(2): 191-198.*

124 *Wild SH, Fischbacher C, Brock A, Griffiths C, & BBhopal R. Mortality from all causes and circulatory disease by country of birth in England and Wales, 2001-2003. Journal of Public Health 2007; 29(2): 191-198.*

125 *Delon C, Brown, KF, Payne NWS, Kotrotsios Y, Vernon S, and Shelton J. Differences in cancer incidence by broad ethnic group in England, 2013–2017. British Journal of Cancer; https://doi.org/10.1038/s41416-022-01718-5.*

126 *Shirley MH, Barnes I, Sayeed S, Finlayson A, and Ali R. Incidence of breast and gynaecological cancers by ethnic group in England, 2001–2007: a descriptive study. BMC Cancer 2014, 14:979. http://www.biomedcentral.com/1471-2407/14/979*

127 *Ben-Shlomo Y, Evans S, Ibrahim F, Patel B, Anson K, Chinegwundoh F, Corbishley C, Dorling D, Thomas B, Gillatt D, Kirby R, Muir G, Nargund V, Popert R, Metcalfe C, Persad R; PROCESS study group. The risk of prostate cancer amongst Black men in the United Kingdom: the PROCESS cohort study. Eur Urol. 2008 Jan;53(1):99-105. doi: 10.1016/j.eururo.2007.02.047. Epub 2007 Mar 1. PMID: 17368710.*

128 *National Cancer Registration and Analysis Service. Ethnicity and Lung Cancer. 2010. Accessed at: http://www.ncin.org.uk/publications/data_briefings/ethnicity_and_lung_cancer*

129 *Gilkes A, Ashworth M, Schofield P, Harries TH, Durbaba S, Weston C, and White, P. 2016. 'Does COPD risk vary by ethnicity? A retrospective cross-sectional study.' Int J Chron Obstruct Pulmon Dis, 11: p. 739-46.*

130 *Bhopal R, Steiner MFC, Cezard G, Bansal N, Fischbacher C, Simpson CR, Douglas A, Sheikh A , on behalf of the SHELS researchers Bhopal, R., et al., (2015), 'Risk of respiratory hospitalization and death, readmission and subsequent mortality: Scottish health and ethnicity linkage study'. European Journal of Public Health, 25(5): p. 769-74.*

131 *Aspinall PJ. When is the Use of Race/ Ethnicity Appropriate in Risk Assessment Tools for Preconceptual or Antenatal Genetic Screening and How Should it be Used? Sociology 2013; 47(5) 957–975.*

132 *Aspinall PJ, Dyson SM and Anionwu EN (2003) The feasibility of using ethnicity as a primary tool for antenatal selective screening for sickle cell disorders: Pointers from the research evidence. Social Science & Medicine 56: 285–97.*

133 *Pham TM, Petersen I, Walters K, et al. Trends in dementia diagnosis rates in UK ethnic groups: analysis of UK primary care data. Clin Epidemiol. 2018;10:949-960. Published 2018 Aug 8. doi:10.2147/CLEP.S152647*

134 *Office for National Statistics. ONS 26 July 2021. Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014#life-expectancy-at-birth-2011-to-2014.*

135 *Truswell, D. Black and minority ethnic communities and dementia: where are we now? Better Health Briefing Paper 30. 2013. Race Equality Foundation: London. Accessed at: http://www.better-health.org.uk/wp-content/uploads/2018/03/health-30.pdf*

136 *Care Quality Commission. People from Black and minority ethnic communities. A Different Ending: Addressing Inequalities in End of Life Care. London: CQC,May 2016. Accessed at: https://www.cqc.org.uk/sites/default/files/20160505%20CQC_EOLC_BAME_FINAL_2.pdf*

137 *Calanzani N, Koffman J, Higginson I J, et al. Palliative and end of life care for Black, Asian and Minority Ethnic groups in the UK. Public Health England, Marie Curie Cancer Care and King's College London 2013.*

138 *Dixon, J., King, D., Knapp, M., Advance care planning in England: is there an association with place of death? Secondary analysis of data from the National Survey of Bereaved People, BMJ Supportive & Palliative Care. ISSN 2045-435X. DOI: 10.1136/bmjspcare-2015-000971*

139 *Koffman J, Ho YK, Davies J, Gao W, Higginson IJ, Saleem M. Does Ethnicity Affect Where People with Cancer Die? A Population-Based 10 Year Study. PLoS One 2014; 9(4): e95052.*

140 *Koffman J, Ho YK, Davies J, Gao W, Higginson IJ, Saleem M. Does Ethnicity Affect Where People with Cancer Die? A Population-Based 10 Year Study. PLoS One 2014; 9(4): e95052.*

141 *Calanzani N, Koffman J, Higginson I J, et al. Palliative and end of life care for Black, Asian and Minority Ethnic groups in the UK. Public Health England, Marie Curie Cancer Care and King's College London 2013.*

142 *Care Quality Commission. People from Black and minority ethnic communities. A Different Ending: Addressing Inequalities in End of Life Care. London: CQC,May 2016. Accessed at: https://www.cqc.org.uk/sites/default/files/20160505%20CQC_EOLC_BAME_FINAL_2.pdf*

143 *Office for National Statistics. ONS 26 July 2021. Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014#life-expectancy-at-birth-2011-to-2014.*

144 *Nazroo J, Bécares L, Kapadia D. Ethnic inequalities in mortality rates and life expectancy in England and Wales: Why we should treat experimental statistics with caution. London: NHS Race and Health Observatory, 29th July 2021.*

145 *Wohland P, Rees P, Nazroo J & Jagger C (2015). Inequalities in healthy life expectancy between ethnic groups in England and Wales in 2001, Ethnicity & Health, 20:4, 341-353, DOI: 10.1080/13557858.2014.921892*

146 *Office for National Statistics. 26 May 2021. Updating ethnic contrasts in deaths involving the coronavirus (COVID-19), England: 24 January 2020 to 31 March 2021. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/updatingethniccontrastsindeathsinvolvingthecoronaviruscovid19englandandwales/24january2020to31march2021.*

147 *Omotade I, Bennett M, Chitson S, Asiedu F, Harrington B, Patel M. 670 factors associated with mortality in multi-ethnic hospitalised COVID patients. Age and Ageing, 2022 (March); 51 (Supplement 1). afac037.670, https://doi.org/10.1093/ageing/afac037.670*

148 *National Audit Office. The rollout of the COVID-19 vaccination programme in England. HC1106. Report of the Comptroller and Auditor-General. 25th February 2022.*

149 *UKHSA, COVID-19 vaccine surveillance report: 24 February 2022 (week 8), https://www.gov.uk/government/publications/covid-19-vaccine-weekly-surveillance-reports.*

150 *Watkinson RE, Williams R, Gillibrand S, Sanders C, Sutton M (2022) Ethnic inequalities in COVID-19 vaccine uptake and comparison to seasonal influenza vaccine uptake in Greater Manchester, UK: A cohort study. PLoS Med 19(3): e1003932. https://doi.org/10.1371/journal.pmed.1003932*

151 *QResearch. Factors influencing COVID-19 vaccine uptake among minority ethnic groups. 2021. Accessed at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/952716/s0979-factors-influencing-vaccine-uptake-minority-ethnic-groups.pdf*

152 *Woolf K, McManusa, C, et al. Ethnic differences in SARS-CoV-2 vaccine hesitancy in United Kingdom healthcare workers: Results from the UK-REACH prospective nationwide cohort study. The The Lancet Regional Health - Europe 9 (2021) 10018.*

153 *Woolf K, McManusa, C, et al. Ethnic differences in SARS-CoV-2 vaccine hesitancy in United Kingdom healthcare workers: Results from the UK-REACH prospective nationwide cohort study. The The Lancet Regional Health - Europe 9 (2021) 10018.*

154 *QResearch. Factors influencing COVID-19 vaccine uptake among minority ethnic groups. 2021. Accessed at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/952716/s0979-factors-influencing-vaccine-uptake-minority-ethnic-groups.pdf*