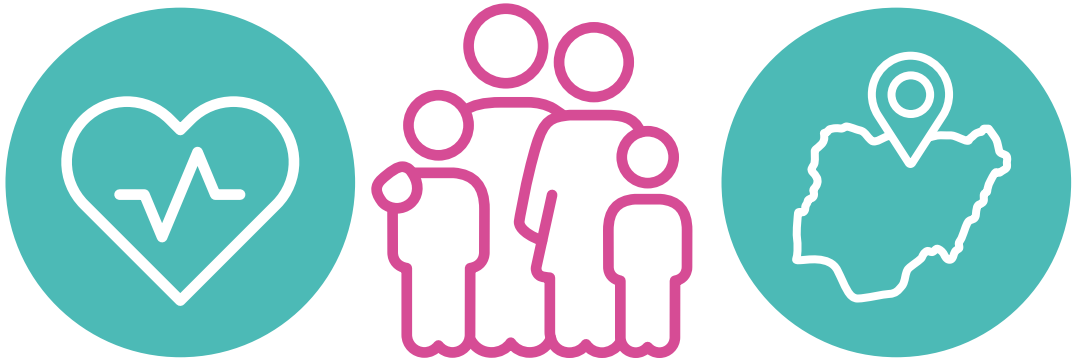
NIGERIAN COMMUNITY HEALTH PROFILE 2022



A BOLDER HEALTHIER BIRMINGHAM

Foreword

The Nigerian Community Health Profile was commissioned by Birmingham City Council to review the evidence on the Nigerian community in Birmingham and nationally. The report synthesises evidence on the experiences, needs and outcomes of the Nigerian 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 Nigerian backgrounds 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 Nigerian communities at a local and national level.

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

Authored in partnership with:

Peter J Aspinall
Emeritus Reader in Population Health

University of Kent
May 2022

Contents

List of Figures

List of Tables

Community Evidence Summary

As part of the Public Health Divisions' work to improve the understanding of the diverse communities of Birmingham, we are developing a series of short evidence summaries to improve awareness of these communities and their needs.

The common objectives for each of the evidence summaries are:

- To identify and summarise the physical health, mental health, lifestyle behaviour, and wider determinants of health-related issues affecting the specific community both nationally and locally.
- To identify and summarise gaps in knowledge regarding the physical health, mental health, lifestyle, behavioural and wider determinants of health-related issues that may be affecting the specific community both nationally and locally.
- To collate and present this information under the ten key priority areas identified in the Health and Wellbeing Strategy for Birmingham 2021.
- To engage with the local communities on the evidence found and any gaps.
- To promote the use of these summaries for Local Authority and wider system use for community and service development.

Executive Summary

The Nigerian Community Health Profile identifies and summarises the national and local evidence concerning the health, lifestyle behaviours, and wider determinants of health that affect Nigerian communities in Birmingham. The report covers the health topics from maternity to ageing and dying well. It identifies health status risks such as diabetes and CVD; protect and detect topics such as screening and vaccinations uptake; and other themes such as knowledge and understanding around service provision and health issues affecting the Nigerian community.

Nigeria was part of the British Empire in Africa between 1914 and 1960. Nigeria gained independence from the UK in 1960 and became a republic in 1963, electing to stay a member of the Commonwealth the same year[1]. While part of the British Empire, Nigeria contributed troops during World War II. It is estimated that 45,000 Nigerian soldiers served in the British Armed Forces in Africa and southeast Asia.

Migration from Central and Western Africa has been recorded since before 1961, but increased steadily in the following decades, reaching a peak during the 1990's. A total of 30,559 Black African migrants arrived in the UK before 1981. The largest country of birth group was Nigeria (n=10,358).

ONS 2011 Census data released country of birth by ethnic group, enabling Black African migrants to be identified. The estimates from this data suggest that there were 168,675 people born in Nigeria living in the UK. These Nigerian-born Black Africans comprised 17.0% of all Black Africans, including the UK-born, in 2011. The ONS Annual Population Survey 2020 estimates that Nigeria was the 7th largest overseas country of birth group, approximating to 281,000 persons.

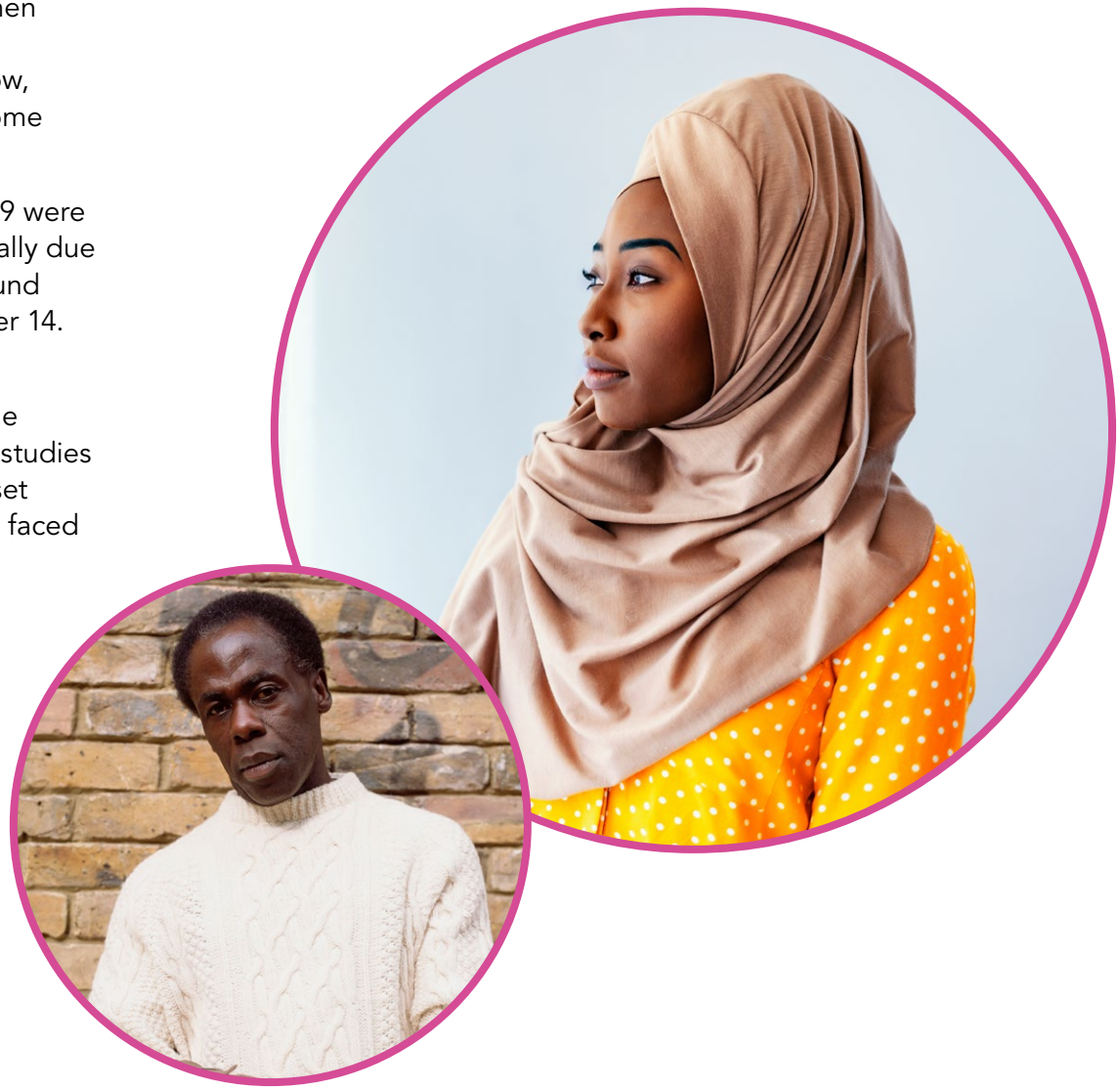
The population size of Nigerians in Birmingham is unmeasured, and this profile relies mainly on approximations. 2011 Census data reveals 3,399 persons born in Nigeria were resident in Birmingham, however more recent approximations are closer to 7,400 persons.

The evidence of health inequalities faced by Nigerians in Birmingham and the UK has been identified through this summary profile through various information sources. The key inequalities identified are:

- Stillbirths amongst those born to Nigerians were higher than the general population. 0.82% of all live births and 1.72% of all stillbirths in Birmingham between 2012 and 2013 were to mothers born in Nigeria. This is compared to 0.50% and 0.58% respectively to the general population of the West Midlands.
- Vaccination rates of specific vaccines such as the 5-in-1 Immunisation Programme was generally found to have lower coverage amongst smaller ethnic groups, such as the Nigerian population.
- Qualitative research from one small study suggests that first generation immigrants to the UK from Nigeria on the entry or residence permit (visa) of their partner or husband were at a higher risk of experiencing domestic abuse.
- Although limited data is available on weight of Nigerians, one study found that in a sample population, 89% of Nigerian women were classified as overweight or obese.
- Nigerians are likely under-represented in NHS staff. In University Hospitals Birmingham NHS Foundation Trust in 2014 only 3.4% of the registered nursing staff (including 0.09% Black Nigerian) were Black African, while proportions for all staff were 2.22% (including 0.10% Black Nigerian).

- Evidence suggests that many internationally recruited nurses have negative experiences in the NHS, including racism, harassment, bullying, discrimination, and lack of equal opportunities.
- Prostate cancer is the leading cause of death amongst Nigerian men and one study suggested that only 4.5% had ever been screened for prostate cancer. Whilst knowledge and risk perception were low, most respondents (81.5%) were willing to be tested suggesting some possibilities for community-based educational interventions.
- Nationally, 27% of Nigerian women between the ages of 15 and 49 were victims of FGM in 2012. However prevalence has decreased, partially due to introductions of federal laws. Current prevalence stands at around 20% for women of reproductive age and 19% for those aged under 14.

One major limitation to this report is the lack of granular data within many themes pertaining to Nigerians and no reliable estimates of the Nigerian ethnic group in England and Wales. A large amount of the studies generalise 'Black Africans' as a homogenous group within the data set which does not provide insight into specific inequalities and barriers faced within the Nigerian community.



Methodology

The Community Health Profile for Nigerians in Birmingham has been conducted as a rapid review of the scientific and grey literature. Below the search strategy for the review and limitations of the Nigerian literature are outlined.

a. Peer-reviewed Databases

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).

b. Grey Literature

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), and other government datasets hosted on the Race Disparity Audit's Ethnicity Facts and Figures website.

c. Search Strategy

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 ('Nigerian', 'Nigerian migrant', 'African', 'West African', 'Black African', 'Sub-Saharan African', 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 African population have also been included, notably, sickle cell disease and female genital mutilation. The concluding chapter focuses on patient experiences and access to services.

d. 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 African-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 African population.

e. 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. 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.

f. Limitations

The target group is the Nigerian population in Birmingham. A major barrier to undertaking this review is that there is a sparsity of literature on this group. The size of the group in this city is unknown. While the 2011 Census provided a count of the migrant population (3,399) there is no data on the second and later generations. The latter are likely to be large as there has been substantial historical migration of Nigerians to Britain, Nigerians being the largest Black African country of birth group for the period before 1981, 1981-2000, 2001-6, and 2007-11. Yet the full size of the Nigerian group in Birmingham remains unmeasured.

A consequence of the relatively small size of the Nigerian group in Birmingham and the specificity of the target population (there is no census ethnic group for Nigerians) is that there is a sparsity of health and healthcare literature on this topic. Negligible literature has been found on this group in Birmingham. There is also a paucity of literature on the Nigerian country of birth group at either the regional (West Midlands) or national level. Mortality data used to be released for aggregated countries of birth (e.g. West Africa) but such data is now out of date and ONS has started to release mortality data by ethnic group. However, where data has been found on Nigerian migrants (frequently not specifying ethnic group) it has been reported.

There is, however, a qualitative research literature on Nigerians in both their country of origin and in Britain on topics such as health-seeking behaviour. Experiences in country of origin are clearly relevant for recent migrants who may be at an early stage in their process of acculturation. A substantial proportion of Black Africans resident in England and Wales in 2011 were migrants. Of the population of 989,628 Black Africans in 2011, 323,276 (one-third or 32.7%) were born in the UK, the so-called second generation. Of the total 666,352 overseas-born Black Africans, 168,675 (25.3%) were born in Nigeria (in 2011 there were 9000 migrant Nigerians in Scotland and 543 in Northern Ireland, though not necessarily Black Africans). Moreover, many of the Black African migrant and Nigerian migrant populations were recent migrants, arriving in the decade 2001-2011. 60.5% of all overseas-born Black Africans were recent migrants, compared with 60.2% in the Nigeria country of birth group (the latter substantially higher than for the Ghana country of birth group (48.0%)). Exhaustive searches have been undertaken to capture this literature, given the substantial information deficit for quantitative health data on Nigerians.

This very poor coverage of the literature on the health of Nigerians at any geographical level in Britain has forced the review to use the proxy of Black Africans. Although the census 'Black African' category encompasses

a much larger range of countries of origin than just Nigerians, it is, nevertheless, of some validity as a proxy as the migration of Black Africans to Britain was dominated by Nigerians up to 2011. Moreover, the time when Black African migrants came to live in this country is very similar to the timing of Nigerian migrants.

Even routine health data for the census category 'Black Africans', released by ONS and NHS Digital, is usually for England/England and Wales. While NHS Digital's fingertips database was set up to provide data for Local Authority Profiles, the database largely lacks data on migrant and minority ethnic groups in its inequalities indicators.

A further major drawback of using 'Black African' data as a proxy for the Nigerian population is that many of the NHS Digital, ONS and other datasets are for the five broad ethnic groups ('White', 'Mixed', 'Asian', 'Black', and 'Other'). This is problematic as, in some areas of health/ healthcare, there is substantial concealed heterogeneity in the 'Black' pan-ethnicity (comprising Black Caribbean, Black Other, and Black African groups). Even broader collectivises have come into recent use, such as BME and BAME, that cover all groups that are not 'White', sometimes because of small numbers ("sparse data bias") in the study population[2].

At the fine-grained end of the categorisation scale, the 'Nigerian' population category is, itself, heterogeneous, containing diverse ethnic, religious, and language groups. Fine-grained ethnic data is available in the Department for Education 'Extended Category' codes, including 'BNGN: Nigerian' and codes for Nigerian languages ('Edo/Bini', 'Igbo', 'Hausa', and 'Yoruba'). Apart from the education sector, these are scarcely recognised by officialdom in Britain. The ethno-religious (or ethno-linguistic) groups, the Yoruba, the Igbo, and the Hausa are used in the context of educational attainment in London[3]. Akinlua *et al.* investigated beliefs about hypertension amongst Nigerian migrants to the UK across seven Nigerian ethnic groups (Yoruba, Igbo, Hausa, Tiv, Urhobo, Okpameri, and Ijaw) (see chapter 6)[4]. These fine-grained groups are also important for language provision, the community languages used by the NHS for COVID-19 vaccination communication materials include Igbo and Yoruba.

168,675 PEOPLE IN THE 2011 CENSUS CITED NIGERIA AS THEIR COUNTRY OF BIRTH

This was the largest population of 'Black Africans' born overseas

NIGERIAN-BORN BLACK AFRICANS COMPRISED **17%** of all Black Africans, including the UK-born, in 2011

60.2% OF THE BORN IN NIGERIA GROUP WERE RECENT MIGRANTS

MAIN REASONS FOR MIGRATION

ACCOMPANY/JOIN | WORK | FORMAL STUDY | OTHER*

*get married, seek asylum, as a visitor or other reason

3,399 PERSONS BORN IN NIGERIA AND RESIDENT IN BIRMINGHAM IN 2011 CENSUS DATA

23.5% OF THE LLSOAS IN BIRMINGHAM (2011) HAD NO NIGERIAN MIGRANTS

A BOLDER HEALTHIER BIRMINGHAM

1.0 Introduction

The Nigerian Community Profile concerns the population resident in Birmingham that had its origins in the West African country of Nigeria[5] (fig. 1).

Figure 1: Map of Nigeria

Source: Encyclopaedia Britannica (2022)

1.1 International Context

There is substantial diversity in terms of fine-grained ethnic groups. These are meaningful and have significant saliency amongst Nigerians living in Nigeria and may also be part of their personal identity for Nigerians living in Britain.

There are around 250 ethnic groups in Nigeria and similarities between them enable these groups to be aggregated into six major ethno-geographic clusters: the Hausa, Fulani and Kanuri constitute two clusters in the northwest and northeast; the Yoruba in the southwest; the Igbos in the southeast; the 'south-south', composed of Ijaw, Ikwerre, Ogoni, Efik and Ibibio; and the Nupe and Igala in the north-central regions[6, 7, 8]. There is a relationship between ethnicity, geographical location, and religion: peoples of the Hausa/Fulani regions in the north are predominantly Muslim, while the easterners, including Igbo, Ijaw, and Efik, are mainly Christian[9]. Amongst the Yoruba in the southwest, and the 16 centrally located Nupe and Igala peoples, Islam and Christianity coexist. These local ethnic identifiers can be collapsed into three distinct ethno-linguistic dominant groups - the Yoruba in the west and south, the Ibos in the south east and the Hausa-Fulani in the north. There is no data on the prevalence of these fine-grained groups in Birmingham or, indeed, in Britain.

1.2 National Context

Given the paucity of demographic data on the Nigerian ethnic group (this remains unmeasured in Britain) and on Nigerian migrants, 'Black Africans' are used as a proxy population. A total of almost one million 'Black Africans' were enumerated in the England and Wales 2011 Census, one-third of whom were born in the UK (the 'second generation'). The overseas-born Black African population (67.3% of all Black Africans) were mostly born in Africa, mainly Central and West Africa[10].

For the 2011 England and Wales Census, the ONS released detailed tabulations of country of birth by ethnic group, enabling Black African migrants to be identified. By far the largest 'Black African' overseas country of birth group in the England and Wales 2011 Census was Nigeria, more than twice the size of the next largest group, Ghana. Of the total of 666,352 overseas-born Black Africans, 168,675 were born in Nigeria. These Nigerian-born Black Africans comprised 17.0% of all Black Africans, including the UK-born, in 2011. Data from the England and Wales 2001 Census reveals that there had been more than a two-fold increase in Nigerian-born Black Africans, from 76,291 to 168,675, though there was significant under-enumeration in 2001.

Much of the migration of overseas-born Black Africans has been recent. 60.5% of migrants most recently arrived to live here during the period 2001-2011. 60.2% of the born in Nigeria group were recent migrants (2001-2011). The substantial recent migration of overseas-born Black Africans since the early 1990s – and especially during the 2000s – has been largely absent in the case of the Black Caribbean group, whose main migration was 60 years ago.

ONS also produces post-census estimates of country of birth and nationality from the Annual Population Survey. However, these are not stratified by ethnic group and country of birth can be a poor proxy for ethnic group. The population of the UK by country of birth and nationality for 2020 reveals that Nigeria was the seventh largest overseas country of birth group, with an estimated 281,000 (Confidence Interval [CI] +/- 29,000) persons. There was a small female excess in this population: 145,000 (+/- 21,000) estimated females vs. 136,000 (+/- 20,000) estimated males. The born in Nigeria group had a higher ranking in some regions of the UK (second in London and third in the North East). The main reasons for migration for migrants from Sub-Saharan African countries (n=1,428,000) were: accompany/join (42.6%); other (including those respondents who

arrived in the UK to either get married/form a civil partnership, to seek asylum, as a visitor, or for other stated reasons) (24.4%); work related (19.2%); and formal study (13.9%). With respect to the UK overseas-born population by nationality, an estimated 128,000 were British nationals, 130,000 nationals of Nigeria, and 23,000 of other nationality[11].

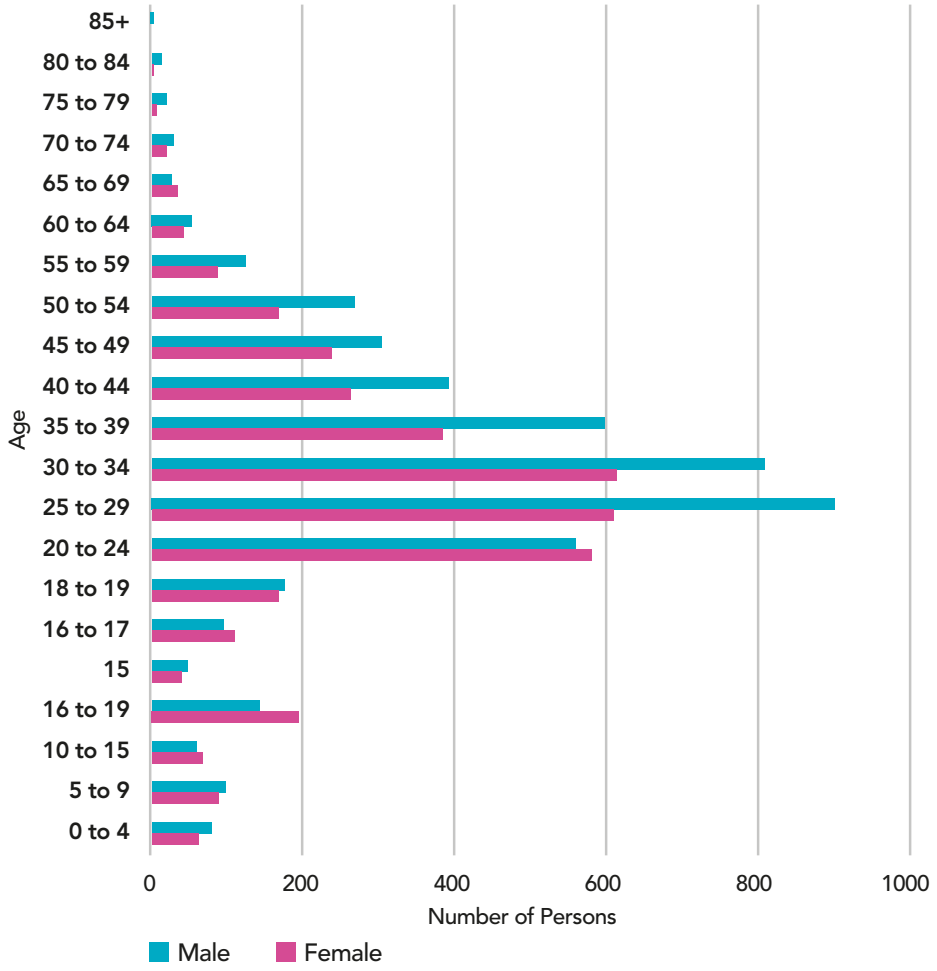
Robust estimates of the size of the Nigerian ethnic group population are not available. While the 'Black/African/Caribbean/Black British' section of the census question had a free-text field (Any Other Black/African/ Caribbean background), only 2,308 persons in England and Wales wrote in 'Nigerian' in this open response field, too small for sub-national estimates or inclusion in ONS 'Small Population' tables for ethnic group. This data demonstrates that the Nigerian respondents were overwhelmingly content to tick the Black African category as an accurate descriptor of their ethnic group. The only relevant category is 'Black African' which clearly is heterogeneous with respect to country of birth (including around one-third born in the UK). Nevertheless, data for 'Black Africans' remains a useful proxy for the Nigerian population, although there is no measure of the full size of this country of origin group, including the second generation.

1.3 Birmingham Context

The Nigerian population in Birmingham is likely to be a relatively small community compared with those defined by a census ethnic category but, as its size is unmeasured, this profile has to rely on estimates. The 2011 England and Wales Census reveals that there were 3,399 persons born in Nigeria and resident in Birmingham in 2011, most of whom will have been 'Black Africans'. However, the migrant Nigerian population is likely to be only one segment of this group. Migration from Nigeria to Britain has a long history. In the periods before 1981, and 1981 to 2000, 2001-6, and 2007-11 Nigeria contributed more Black African migrants to the British population than any other country of birth group[12]. Consequently, there is likely to be a substantial second and further generation but there is no data on the size of this segment. Thus, we do not known the full size of the Nigerian population in Birmingham. Birmingham City Council have supplied data that suggests that this population has increased, with an estimated further 4,000 persons of Nigerian origin having registered at a GP practice since 2013. Thus, the group will now encompass a migrant population of 3,400 in 2011, an unknown second generation population in 2011 but likely to be of several thousand, and an increment of a further population growth of 4,000.

To investigate the population structure of the Nigerian migrant population in Birmingham confronts the barrier of small numbers and there is no additional data that is retrievable from the census. However, ONS has released data on the age and gender breakdown of the Nigerian country of birth group in the West Midlands, which can be seen by figure 2 (see Appendix 1 for full data table).

Figure 2: Persons born in Nigeria and resident in the West Midlands by age and sex



Source: ONS Country of birth by sex by age (regional) [DC2109EWr]. (2011)

Figure 2 shows important differences in age structure across the genders in the Nigerian country of birth group but only at the regional (West Midlands) level. There is a substantial excess of males in the adult population of working age, especially the 25-29, 30-34, 35-39, and 40-44 age groups. There is only a significant excess of females in the 10 to 14 age group[13].

The age and gender structure of the Nigerian ethnic group (including the second generation) is likely to be different from that for the migrant population. However, as this population is not counted we have to rely on data for the 'Black African' group.

ONS has produced data for ethnic group by age and sex but for local authorities (at this lower spatial scale the number of age groups is reduced to four), and can be seen in figure 3 (see Appendix 2 for full data table). This data reveals a slight excess of females in the 0-24 and 25 to 49 age groups and a slight excess of males in the 50 to 64 and 65 and over age groups. Thus, in contrast to Nigerian migrants where there was a substantial excess of males in the adult working age groups, the Black African population resident in Birmingham shows a slight female excess in age groups up to 50[14].

Figure 3: 'Black African' persons resident in Birmingham by age and sex

Source: ONS Ethnic group by age and sex. [LC2101EW]. (2011)

The 2011 Census and other sources provide data to compile a profile for the Nigerian group (or its proxies) on a range of cultural characteristics.

The ONS 2020 estimates for country of birth only reveal that there were a total of 37,000 persons of Sub-Saharan African countries of birth resident in Birmingham Metropolitan District in 2020, the figure containing a wide confidence interval (+/- 17,000). The Black African (including Nigerian) population in Birmingham is likely to have increased substantially in size since the 2011 Census. If, for example, we take the number of Black African children in schools in England, they numbered 194,285 in 2011 but had increased by 56% to 303,018 by 2018[15].

The age distribution of the Black African population is varied on whether the individual was born in the UK or a migrant to the UK. The migrant Black African population has higher proportions in the 25-29 to 50-54 age groups, whereas those born in the UK are concentrated in the young age groups (0-4 and 5-9). This can be seen by Figures 4 and 5 (see Appendix 3 and 4 for full data tables).

Figure 4: Black African Population by sex (Men), by age, by country of birth (born in the UK, born overseas).

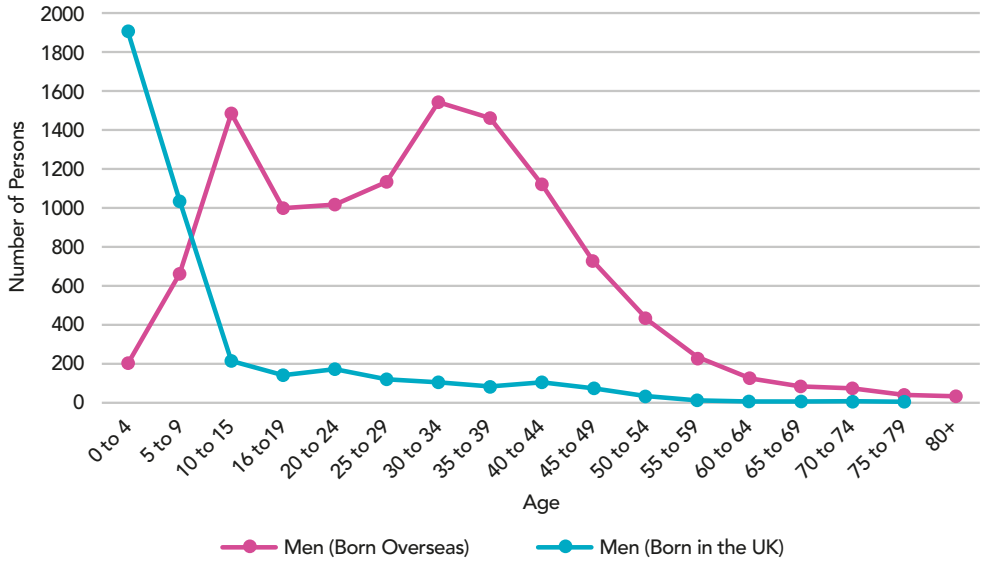
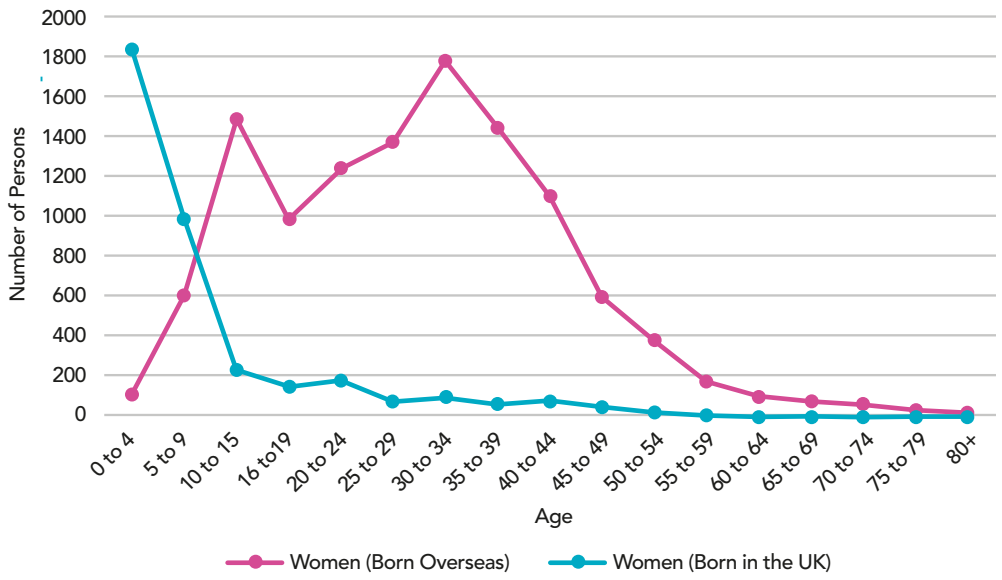


Figure 5: Black African Population by sex (Women), by age, by country of birth (born in the UK, born overseas)



Source: Birmingham LA and Solihull LA combined. (2011 Census).CT0430_2011

Additionally, it can be seen by Table 1 that there is a higher Proportion of the Black African population that has migrated to the UK, compared to those born in the UK.

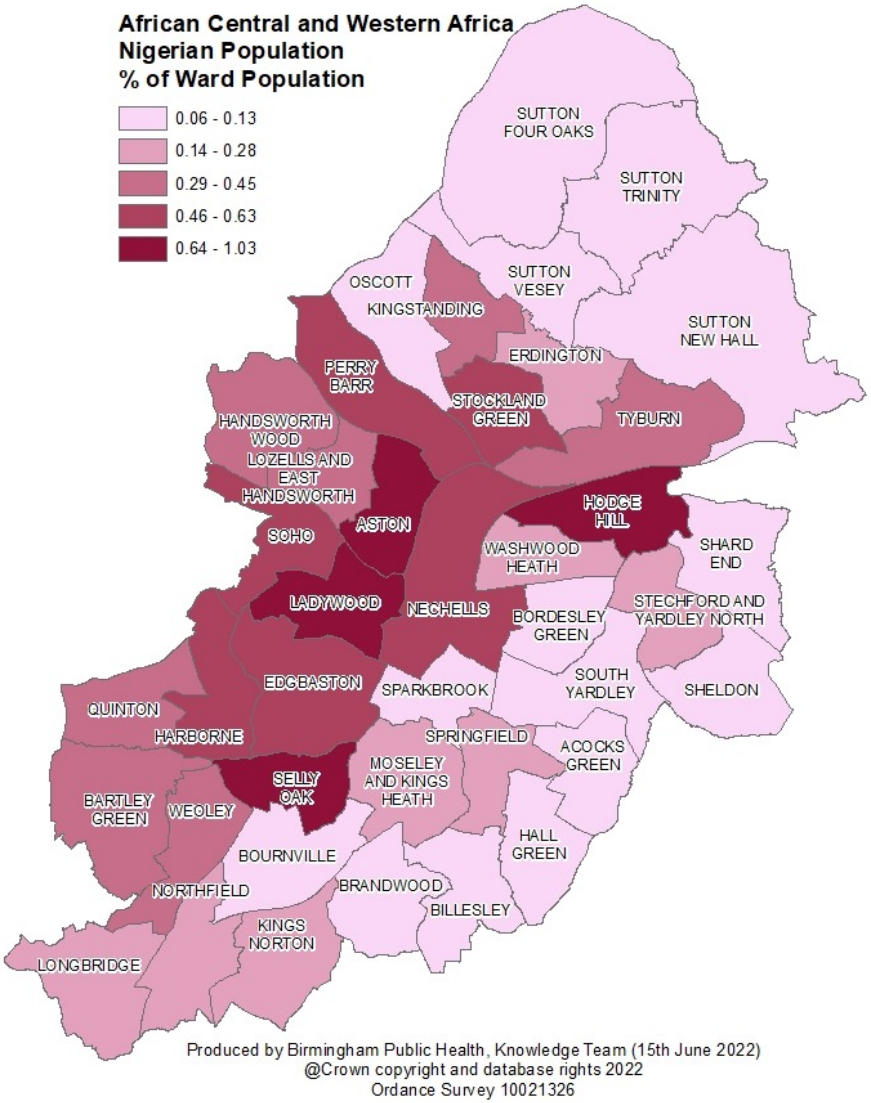
Table 1: Black African Population by sex, by age, by country of birth (born in the UK, born overseas) summary

Sex	Born in the UK	Born Overseas	Total
Male	3,983	11,366	15,349
Female	3,824	11,670	15,494
Total	7,807	23,036	30,843

Source: Birmingham LA and Solihull LA combined. (2011 Census).CT0430_2011

Data has been extracted from the 2011 England and Wales Census using NOMIS for Lower-Level Super Output Areas for the Metropolitan Borough of Birmingham. The number of Nigerian migrants in Birmingham in 2011 was 3,399 persons. This relatively small number was widely dispersed across the city. Of 638 Lower-Level Super-Output areas in the city, 150 (23.5%) had no Nigerian migrants, and a further 45.8% had only 1-5 Nigerian migrants. Only 33 LLSOAs had over 20 Nigerian migrants and there was just one outlier with 97 Nigerian migrants. An LLSOA has an average size of 1500 persons. The population of Nigerians in Birmingham can be seen by figure 6 (see Appendix 5 for full data).

Figure 6: Nigerian population in Birmingham by Ward



Source: Graph produced using data extracted from 2011 Census[16].

Nigerian students in higher education institutes in Birmingham comprise a significant proportion of Nigerian migrants[17]. In the academic year 2019-20 there were 645 students in these institutions whose country of domicile was Nigeria, or 5.0% of all UK higher education students whose country of domicile was Nigeria (n=13,020). The institution in Birmingham with the largest number (n=230) was the University of Birmingham, followed by Birmingham City University (n=225), Aston University (n=175), and University College Birmingham (n=15). Universities in other West Midlands local authorities with significant numbers were the University of Coventry (n=725), University of Wolverhampton (n=130), and University of Warwick (n=115). Although Nigerian students are likely to be only a small proportion of all Nigerian migrants in the city of Birmingham (perhaps only 10-15%), they are of disproportionate importance as they have low GP registration levels.

1.4 Migration to the UK

Data is not available for Nigerian migrants resident in Birmingham on when they most recently arrived to live in this country. However, ONS has released this data for Nigerian migrants who identified as Black African for those in England and Wales. Africans from Central and Western Africa have arrived since before 1961 and in relatively modest numbers in the 1960s (1961-70, n=13,093) and 1970s (1971-1980, n=16,266). Clearly, many of these migrants would have died in subsequent years and so be absent from the 2011 Census. These numbers (as represented in the 2011 population) increased substantially during the 1980s (1981-90, n=49,764), and reached a peak in the 1990s (1991-2000, n=94,611). In the new century the numbers plateau at around 61,000 (2001-3, 2004-6, and 2007-9) but fall to 24,964 in 2010-11 (a shorter time period)[18].

More detailed national data is available on Black African migrants for four time periods (pre 1981, 1981-2000, 2001-6, and 2007-11). A total of 30,559 Black African migrants arrived before 1981. The largest country of birth group was Nigeria (n=10,358), followed by Ghana (n=9,318). A total of 232,614 Black African migrants arrived during 1981-2000. These included 56,833 Nigerians, again the largest country of birth group, followed by Ghana (n=33,808). A total of 263,168 Black African migrants arrived during 2001-6. Again, Nigerian migrants were the largest group (n=53,462). However, this period saw changes, notably, the falling percentages contributed by Nigeria, from 24.4% to 20.3 %, and Ghana from 14.5% to 10.4% (displaced by Zimbabwe as second largest). Finally, a total of 140,011 Black African migrants arrived in the period 2007-11. Again, Nigeria was the largest country of birth group (n=48,022). Nigerian migrants increased their share from a fifth to over a third (34.3%), with migrants from Ghana falling from 10.4 to 8.9% (but again the second largest group).

The reasons underlying these migration flows include economic migration, forced migration (asylum seekers/refugees), family reunion, and migration for education. Between 1989 and 2014, nationals of Nigeria (n=35,146) were the second largest group seeking asylum, after nationals of Somalia (n=67,230). The number of Nigerian nationals peaked at 5,825 in 1995, plateauing at around 1,000 between 1989 and 2009, then increasing. Formal study was the main reason for migration for around 14% of the sub-Saharan African-born population in the UK in 2014, though study is no longer an effective route to settlement. Nigerians accounted for over a third of the applicants for settlement in 2004, rising to over a half in 2006. Work-related reasons was the main reason for migration amongst 15.0% of the sub-Saharan-born migrant population in 2014. Of the 2008 cohort of skilled workers 34.3% of Nigerians were granted settlement 5 years later. Amongst temporary work visa holders, only 2.5% of Nigerians had been granted settlement. In the year ending March 2015, there were 12,000 National Insurance number registrations for Nigerians, amongst the top five non-EU nationalities. In the 2008 cohort Nigerians were amongst the top five nationalities issued dependants joining or accompanying visas. There were 2,265 Nigerian nationals in the 2008 cohort, 51% of whom had been granted settlement 5 years later (5 percentage points above all migrants).

1.5 Religion

Although there is no data from the 2011 Census for the Nigerian population, there is a breakdown for Black Africans in Birmingham. Of the total of 29,991 Black Africans in the city, 14,841 were Christians, 12,705 were Muslims, there being no other significant groups. Just 590 indicated no religion (typical of the Black African group in England and Wales)[19]. The main religions in Nigeria reflect those of Black Africans - Christian and Muslim (mainly Sunni in Nigeria) – both of the same approximate size, with a very small minority of adherents to traditional African religions[20]. There are some important distinctions with respect to these two groups: Muslims have a higher fertility rate. Since 1990 there has been a significant growth of evangelic protestant churches in Nigeria and there has been a similar growth of such churches amongst the community in Britain.

Fertility rates for many migrant groups in Britain (including Black Caribbeans) have declined to around the national average, and below it in some cases. However, over recent decades Black African women have had higher total fertility rates (TFRs) than most other ethnic groups and in 2011 women born in several African countries were featured in the top 20 for number of births. Fertility rates are frequently calculated around the time of the decennial census as ethnic group is not recorded at birth registration. Simpson (2013) uses the child/women ratios method (that compares the number of children born for five-year periods before each of the 1991 (1986-1990), 2001 (1996-2000), and 2011 (2006-2010) Censuses with the number of women at fertile ages 15-44) to provide estimates of Total Fertility Rates[21]. For the period 1986-90 Black African women had a

TFR of 2.25, the third highest after Bangladeshis (3.96) and Pakistanis (3.16) and higher than the White group (1.76). By 1996-2000 the Black African rate had fallen to 2.05 but increased to 2.37 in 2006-10, remaining third in rank-ordered rates. While there is a trend towards the convergence of fertility rates across ethnic groups, only the Black African group significantly increased its TFR between 1996-2000.

Simpson's findings are broadly consistent with those of other investigators who use the own-child method to calculate average period total fertility for 1996-2000 and 2001-2005 from the Labour Force Surveys[22]. These investigators estimate a Black African total fertility rate of 2.41 in 1996-2000, only exceeded by the Bangladeshi (3.43) and Pakistani (2.91) groups and higher than the TFRs for Black Caribbean (1.88), Other Black (1.87) and White British (1.71) rates. By 2001-2005 the Black African TFR had fallen to 2.32, though the Other Black rate had increased to 2.23, against a stable White British rate.

Women living in England and Wales born in Africa had a TFR of 2.76 in 2011, the highest TFR of women living in England and Wales born in any world region. However, estimates of TFR for the African-born migrant population conceal substantial heterogeneity. The Nigeria country of birth group (7,476 births, 3.32) was seventh highest in Sub-Saharan Africa, above that for the UK-born (1.84) and more than twice the England and Wales average.

In England and Wales in 2014, births to mothers born in Africa contributed 5.0% of all live births[23]. The top 10 non-UK countries of birth of mother have remained similar across the decade since 2003, Nigeria appearing in this ranking in each year between 2003-2014. Between 2015 and 2020 Nigeria ranked sixth in the list. In 2014 mothers born in Nigeria contributed 3.7% of all live births to mothers born outside the UK; in 2020 Nigerian-born mothers contributed 5,575 live births (or 3.1% of all live births to mothers born outside the UK, and 0.9% of live births to all mothers). According to ONS data, between 2017 – 2019, 0.7% of live births in Birmingham were to mothers born in Nigeria. The age of African-born mothers is different to UK born mothers: fewer are in the <24 age groups (9.3% vs 22.9%) and more in the 35-39 age group (22.8% vs 15.3%). Where the number of previous live-born children were five and over, the proportions amongst Africa-born mothers was 3.2% (and especially high, 6.6%, amongst Eastern Africa-born mothers, the grouping containing Somalia), versus 1.5% in UK-born mothers. Just over a third (35.2%) of all live births to African-born mothers were outside marriage/civil partnership status, compared with 54.7% of UK-born mothers[24]. With respect to the spreading out from London of the Black African population, 48.4% of live births were to African-born mothers usually resident in London, down from 51.6% in 2011 and 56.4% in 2005.

1.6 Languages

512 languages are currently spoken in Nigeria. While English is the official language, many other languages have significant numbers of speakers. These include the 'Niger-Congo' languages, such as Igbo, Yoruba, Ijaw, Fulfulde, Ogoni, and Edo, Kanuri (part of the Nilo-Saharan family), and Hausa (an Afroasiatic language). Hausa is the most widely spoken of the several main languages - notably, Yoruba and Igbo - in Nigeria.

There is 2011 Census information on languages spoken by Black Africans in Birmingham. They include Yoruba (242 main speakers), Igbo (127 main speakers), and 'Any other Nigerian language' (166 main speakers). The main language of most Nigerians in Birmingham will be English.

1.7 National Identity and Passports Held:

In the 2011 Census ONS asked a question on national identity. While no comprehensive data is available for Nigerians, 2,034 respondents in Birmingham gave 'Nigerian' as their national identity. For the West Midlands, amongst the Central and West African country of birth group, the 20,461 2011 Census respondents in the Central and Western Africa country of birth group gave as their national identities British only (n=4,868), English only (n=1,183), other identity only (not including one of the UK home countries) (n=13,550), and 'other identity and at least one UK identity' (n=622). Thus, this data indicates that, amongst West Midlands respondents to the Census, two-thirds of residents gave as their national identity their country or region of origin in Africa.

The 2011 Census records information on passports held. Of the 8,628 passport holders born in Nigeria and resident in the West Midlands, 2,366 persons held UK passports but 5,607 Nigerian passports. Similarly, total European passports (n=2,683) were exceeded by Central and Western Africa passport holders (n=5,644)[25].

1.8 Nigerian Diet

Popular and traditional Nigerian foods include Jollof Rice, Iyan (Pounded Yam), Àmàlà (Yam Flour/ Cassava Flour/ Plantain Flour), Ogbono Soup (African Mango Seed Soup), Puff-Puff (Fried Sweet Dough Ball), Àkàrà (Fried Bean Cake), Pepper Soup, and Suya (Spicy Grilled Kebab).

1.9 Other Cultural Characteristics

As Onyigbuo has shown, health-seeking behaviours among Nigerians were best understood in terms of their religious and cultural beliefs, as typified by their health context before migration[26, 27]. Religion was not found to be a barrier to medical help-seeking, though belonging to the Christian religious group was found to be associated with increased medical help-seeking (although assimilation to the British culture was associated with reduced religious behaviours). However, the role of other religious groups regarding medical help-seeking remains unclear. Further, care providers mainly agreed on the benefits of integrating the spiritual methods into formal healthcare systems, though challenging in itself.

These and other characteristics of the Nigerian (or proxy 'Black African') population are explored in further detail in Chapter 4 (introduction), at higher geographical levels.

0.82% of all live births in Birmingham from 2012-2014 were to mothers born in Nigeria but **1.72% OF ALL STILLBIRTHS**

Late booking for antenatal care amongst Black African women. Barriers to access include:

Cultural beliefs where pregnancy disclosure within 13 weeks was considered inappropriate

Lack of information about the booking appointment

Unresolved immigration issues including concern about their immigration status

3.32 total fertility rate for Nigeria country of birth was above that for UK-born **1.84** AND MORE THAN 2x ENGLAND/ WALES AVERAGE

COMPARED TO NATIONAL CONTROLS, BEING NIGERIAN WAS ASSOCIATED WITH PRETERM BIRTH AND CAESAREAN SECTION

2.0 Community Profiles

2.1 Getting the Best Start in Life

Getting the Best Start in Life Key Findings:

- The total fertility rate (TFR) of the Nigeria country of birth group (7,476 births, 3.32) was seventh highest in Sub-Saharan Africa, above that for the UK-born (1.84) and more than twice the England and Wales average.
- In 2020 Nigerian-born mothers contributed 5,575 live births (or 3.1% of all live births to mothers born outside the UK, and 0.9% of live births to all mothers).
- 0.82% of all live births in Birmingham from 2012-2014 were to mothers born in Nigeria but 1.72% of all stillbirths.
- There is no Nigerian-specific data on child weight. In 2019-20 Black African children in England, aged 4-5, had the highest rate (15.9%) of obesity across ten ethnic groups, substantially higher than the White British group (9.7%).
- The proportion of overweight or obese boys was highest in the Black African population (42%), and Black African girls were also one of the ethnic groups most likely to be overweight or obese (40%)

2.1.1 Maternal Health

Fertility rates for many migrant groups in Britain (including Black Caribbeans) have declined to around the national average, and below it in some cases. However, over recent decades Black African women have had higher total fertility rates (TFRs) than most other ethnic groups and in 2011 women born in several African countries were featured in the top 20 for number of births. Fertility rates are frequently calculated around the time of the decennial census as ethnic group is not recorded at birth registration. One researcher uses the child/women ratios method (that compares the number of children born for five-year periods before each of the 1991 (1986-1990), 2001 (1996-2000), and 2011 (2006-2010) Censuses with the number of women at fertile ages 15-44) to provide estimates of Total Fertility Rates[28]. For the period 1986-90 Black African women had a TFR of 2.25, the third highest after Bangladeshis (3.96) and Pakistanis (3.16) and higher than the White group (1.76). By 1996-2000 the Black African rate had fallen to 2.05 but increased to 2.37 in 2006-10, remaining third in rank-ordered rates. While there is a trend towards the convergence of fertility rates across ethnic groups, only the Black African group significantly increased its TFR between 1996-2000.

Simpson's findings are broadly consistent with those of other investigators who use the own-child method to calculate average period total fertility for 1996-2000 and 2001-2005 from the Labour Force Surveys[29]. These investigators estimate a Black African total fertility rate of 2.41 in 1996-2000, only exceeded by the Bangladeshi (3.43) and Pakistani (2.91) groups and higher than the TFRs for Black Caribbean (1.88), Other Black (1.87) and White British (1.71) rates. By 2001-2005 the Black African TFR had fallen to 2.32 though the Other Black rate had increased to 2.23, against a stable White British rate.

Women living in England and Wales born in Africa had a TFR of 2.76 in 2011, the highest TFR of women living in England and Wales born in any world region. However, estimates of TFR for the African-born migrant population conceal substantial heterogeneity. The Nigeria country of birth group (7,476 births, 3.32) was seventh highest in Sub-Saharan Africa, above that for the UK-born (1.84) and more than twice the England and Wales average.

In England and Wales in 2014, births to mothers born in Africa contributed 5.0% of all live births[30]. The top 10 non-UK countries of birth of mother have remained similar across the decade since 2003, Nigeria appearing in this ranking in each year between 2003-2014. Between 2015 and 2020 Nigeria ranked sixth in the list. In 2014 mothers born in Nigeria contributed 3.7% of all live births to mothers born outside the UK; in 2020 Nigerian-born mothers contributed 5,575 live births (or 3.1% of all live births to mothers born outside the UK, and 0.9% of live births to all mothers). According to ONS data, between 2017 – 2019, 0.7% of live births in Birmingham were to mothers born in Nigeria. The age of African-born mothers is different to UK born mothers: fewer are in the <24 age groups (9.3% vs 22.9%) and more in the 35-39 age group (22.8% vs 15.3%). Where the number of previous live-born children were five and over, the proportions amongst Africa-born mothers was 3.2% (and especially high, 6.6%, amongst Eastern Africa-born mothers, the grouping containing Somalia), versus 1.5% in UK-born mothers. Just over a third (35.2%) of all live births to African-born mothers were outside marriage/civil partnership status, compared with 54.7% of UK-born mothers. With respect to the spreading out from London of the Black African population, 48.4% of live births were to African-born mothers usually resident in London, down from 51.6% in 2011 and 56.4% in 2005[31].

Reporting on the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2015-17, Knight *et al*. reported that while Black women comprised 4% of all women giving birth, they comprised 18% of women who died (a rate of 38 per 100,000, compared with 7 per 100,000

of White women)[32]. Of these 32 women, 22 were 'Black Africans'. Thus, Black women have more than five times the risk of dying in pregnancy or up to six weeks postpartum compared to White women, women of Mixed ethnicity three times the risk and Asian women almost twice the risk. The report also noted that Black women (compared to White) are around 3 times more likely to develop pre-eclampsia in their pregnancies. With respect to specific countries of birth, women born in Nigeria had the highest of the listed rates: 10 deaths amongst 20,469 maternities, a rate of 48.85 per 100,000 maternities, a relative risk of 6.13 compared with 1 for women born in the UK. Nair *et al.* report a similar picture for severe maternal morbidity in a national cohort of data collected by the UK Obstetric Surveillance System (UKOSS)[33]. 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. Similar inequalities have been observed in previous reports. The deaths reported in the CMACE report referred to women who arrived in Britain recently seeking asylum or refugee status, with Nigerian migrant women portrayed as 'health tourists' within this triennia cohort[34].

Late antenatal booking has been linked to infant and maternal health inequalities. An audit of pre- and post-referral delays in antenatal bookings in London 2015-16 found a number of characteristics associated with late booking: living in more deprived areas, age < 20 years, higher parity, Black or Minority ethnicity (particularly Bangladeshi or Black African), birth in Somalia, Jewish religion, first language other than English, unemployment of self or partner, lack of social support, and single parent families[35]. A structured systematic literature search of factors contributing towards women booking late for antenatal care in the UK identified women of non-white ethnicities, being born outside of the UK, and not speaking English[36].

Specific studies show that a complex set of reasons underlie Black African women's late booking for antenatal care. Chinouya and Madziva investigated late booking amongst 23 women who self-identified as Black African migrants born in a sub-Saharan African country and resident in London through qualitative interviews. Reasons given included cultural beliefs where pregnancy disclosure within 13 weeks was considered inappropriate; lack of information about the booking appointment; and unresolved immigration issues including concern about their immigration status[37]. Cresswell *et al.* found that English speaking and UK-born women of African or Caribbean ethnicity were still more likely to book late for antenatal care (unlike English-speaking, UK born women of other ethnicities)[38]. Another paper also notes that poor maternity care access is inherent among indigenous Nigerian women in their home country and is a contribution to maternal morbidity and mortality[39].

The mental health of mothers

Other literature includes the mental health of mothers participating in the Millennium Cohort Study[40]. With respect to 9-month results, prevalence of psychological distress varied between ethnic groups, from 12.7% (Black African) to 23.3% (Pakistani). Prevalence of current treatment ranged from 2.5% (Black African) to 8.7% (White British) and this difference was statistically significant. Regarding 5-year results, prevalence of current treatment ranged between ethnic groups from 1.5% (Black African) to 7.7% (White British), despite a higher level of distress (6.0% vs 2.9%), and was statistically significant. Observed disparities were wider at 5 years than 9 months.

Afolabi *et al.* examined the interaction between social support, parity and culture in the development of post-natal depression and maternal–infant bonding among Nigerian, British and Nigerian Immigrant mothers in the UK[41]. Culture was found to play a significant role in the amount of functional support that is accessible from the social network for women with post-

natal depression. British mothers were more likely to receive functional support from their social networks than Nigerian and African immigrant groups[42]. Further, Nigerian immigrants may be at risk of 'assumptive stereotypes and discrimination' which may cause disparities in the formal and informal support and skilled mental healthcare that they access when compared to other British mothers.

2.1.2 Live births, stillbirths, infant deaths

While ethnic group data is collected at a granular level (68 categories) for birth notifications, ONS reports its routine data on live births, stillbirths, and infant deaths only for the 5 pan-ethnicities (including the 'Black' group). ONS has recently reported on births and infant mortality by ethnicity in England and Wales for the period 2007 to 2019[43]. Babies from the Black ethnic group have the highest rates of stillbirths, with a peak of 9.2 stillbirths per 1,000 total births in 2007 decreasing to 7.1 stillbirths per 1,000 total births in 2019. All subcategories within the Black ethnic group had similarly high stillbirth rates. The Black ethnic group also has had the highest infant mortality rate each year with a rate of 6.4 deaths per 1,000 live births in 2019. All subcategories of the Black ethnic group have relatively high infant mortality rates. Babies from the Asian ethnic group consistently have the second highest rates of stillbirths and infant mortality.

The Black ethnic group has the highest percentage of live births to mothers who live in the most deprived areas of England for all years, with 82.9% of babies from the Black ethnic group born in the most deprived areas in 2019. Also, a higher proportion of live births within the Asian, Black and Any Other ethnic groups were in the most deprived areas compared with the White ethnic group. For the Black ethnic group, the stillbirth rate is similar across most levels of deprivation. ONS has combined data for 2017, 2018 and 2019 to assess infant mortality by cause of death. For most ethnic groups, including the Black group, immaturity-related conditions are the main cause of infant mortality. For this variable ONS has released data for Black Africans. The infant mortality rate per 1,000 live births was 3.2 for immaturity, 1.8 for congenital anomalies, and 1.5 for other[44].

The Black ethnic group had the highest infant mortality rates for low birthweight babies (less than 2,500 grams), with a rate of 43.8 deaths per 1,000 low birthweight live births in 2019, low birthweight being a known risk factor for infant mortality.

The Black ethnic group had the highest percentage of preterm live births (a birth that occurs before 37 weeks gestation) out of all the ethnic categories in all years[45], with 8.5% of all live births being preterm in 2019. For the years 2007 to 2019, infant mortality rates for babies born at 24 weeks or over are highest for the Black and Asian ethnicities[46].

Adverse pregnancy outcomes: sub-Saharan African women of Nigerian origin

A 2016 report by Public Health England (PHE) investigated trends in infant mortality in the West Midlands, and more recent updates to PHE's data on child and maternal health has helped inform an inquiry into infant mortality rates in Birmingham[47]. Public Health England provides some information on infant and perinatal mortality in the West Midlands (including Birmingham amongst upper tier local authorities (UTLAs)) by mother's country of birth (including Nigeria). In Birmingham during 2012-14 there were a total of 31,857 births to mothers born in the UK and 20,546 births to mothers born outside the UK. Amongst mothers born outside the UK, there were 431 births to mothers born in Nigeria, ranking eighth out of the top ten countries of birth. 0.82% of all live births in Birmingham during this period were to mothers born in Nigeria but 1.72% of all stillbirths (figures for the West Midlands were, respectively, 1,086 births and 0.50% and 0.58%)[48].

It is notable that sub-Saharan African women of Nigerian origin appeared more vulnerable and exposed to several adverse pregnancy outcomes than native-born women[49]. Compared to national controls, being Nigerian

was associated with preterm birth (aOR 1.6, 95% CI 1.1-2.2) and Caesarean section (aOR 2.2, 95% CI 1.5-2.7); no differences were found in rates of instrumental delivery and the Nigerian group had half the risk of genital tears (aOR 0.6, 95% CI 1.1-2.2) with a higher likelihood of undamaged genitals (aOR 1.5, 95% CI 1.3-2.1). Perinatal indicators of neonatal distress were increased among Nigerians, namely a low Apgar score (aOR 2.6, 95% CI 1.4-4.9), new born intensive care unit admission (aOR 1.7, 95% CI 1.1-2.8), and stillbirth (aOR 4.0, 95% CI 1.3-12.8).

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[50]. Sickle cell disease affects lots of families in sub-Saharan Africa, especially in Nigeria. Sickle cell disease is the name for a group of inherited health conditions that affect the red blood cells. The most serious type is called sickle cell anaemia. People with sickle cell disease produce unusually shaped red blood cells that can cause problems because they do not live as long as healthy blood cells and can block blood vessels. Screening for sickle cell disease in pregnancy is offered to all pregnant women in England to check if there's a risk of a child being born with the condition, and all babies are offered screening as part of the new-born blood spot test (heel prick test). It is important to encourage Nigerian families to adhere to screening for sickle cell disease so that effective treatment can be given during early child development.

2.1.3 Birth and Child-Rearing Practices

Dike undertook a literature review to explore the cultural practices of Nigerian women during pregnancy and childbirth in the UK, both within and outside their indigenous community, to identify aspects of birth practices that might enhance (or constrain) their health and wellbeing[51]. Cultural beliefs play a part in influencing Nigerian women's decisions about when to register for maternity care, where and from whom to access maternity care and whose advice to adhere to throughout the continuum of pregnancy and birth. Attention to pre- and postnatal needs are consistently reflected in rites, rituals, taboos and symbolic structures that inscribe protective meanings to the woman. Nigerian women may adhere to aspects of traditional birth practices that they consider relevant and valid during their birth experience in Britain. Health professionals' unfamiliarity with the diversity of Nigerian women's beliefs, practices and religion may give rise to misunderstanding, stereotyping and insensitivity in the provision of maternity care. Women who give birth outside their country of origin might have to contend with differing cultural approaches to care and may have to forego some of the ethno kinship network of support available within their indigenous culture geared towards practical support at maintaining their health and wellbeing. Among Nigerian women, there is strong stigma attached to caesarean births that extends beyond denigrating the woman to carrying the consequence of preventing her own daughters from acquiring husbands and her sisters from marrying. The challenges of immigration such as ethnic prejudice, unemployment, poverty, poor understanding/ poor access of social services, social isolation, and lack of social interpersonal skills may compound the women's predicament in their new environment while experiencing birth in a new country[52]. Maternity healthcare provision in the UK may not meet the holistic and traditional needs of Nigerian women, particularly those from rural areas where traditional customs still prevail. The investigator concludes: 'Improving healthcare provision to multicultural populations during pregnancy and childbirth must include understanding and deconstruction

of concepts of culture, rites, rituals and practices that influence the health and wellbeing of women accessing maternity care'. In the case of Nigerian women, this includes ensuring individualised and holistic care that is culturally sensitive and meets their care needs throughout the birth continuum and acknowledgement and promotion the ethno-kinship network of support that serve to foster health and wellbeing of mothers and babies.

With respect to the family and child rearing, some patterns and practices are considered to be more common in Africa[53]. These include the diversity of family types; the extended family as the norm, including the sharing of child rearing amongst extended family members and kinship foster care (a role replicated in the diaspora by community and faith groups); the importance of remittances to extended family members; the expectation that children will show respect to their elders in culturally specific ways; and the importance of discipline. Also, roles within African households appear to be gender specific and co-resident men remain heads of households. Some of these practices were referred to in the Victoria Climbié enquiry, including private fostering arrangements and the timidity and submissiveness of the child. There has been some stereotyping and stigmatizing of Black African child rearing practices based on the publicity that resulted from the death of this child and police investigations into possible ritual assaults and killings, such as the 'Adam's torso' case[54]. As Nzira indicates, 'these publicized cases of child abuse within the African community do not represent the reality of the experience of most African families'[55]. Rather, that experience might encompass shared experiences of discrimination and disadvantage when using social care services, poverty, the difficulties of combining work, study, and family life, the lived experience of African children in local authority care, changing family compositions including inter-ethnic unions and their offspring with a racialized mixed race heritage, and blended families[56, 57].

Okpokiri's study of first-generation Nigerian immigrant parents and their management of childrearing issues in Britain provides specific findings for the Nigerian community[58]. Nigerian families were found to be overrepresented in child protection interventions in Greater London, drawing attention to cultural differences in childrearing practices. Most participants in this study wished to uphold certain childrearing practices from their backgrounds, notably, a picture of caregiving for children occurring within communal and co-dependent family relationships, which emphasised expectations of obedience and respectful behaviour from children. Participants also communicated a collective view that Nigerian parents were commonly understood within British society as harsh and controlling, a view attributed to social workers and other child safeguarding professionals. A third finding was that parents were fearful in their dealings with child safeguarding professionals, such fears being identified as linked to prior immigration experiences, xenophobia/racism within public discourses and activities, and ineffectual social work practices that were not 'culturally competent'[59, 60]. A fourth finding was the respect expressed by participants for the British government's efforts to uphold the rights of children. Okpokiri calls for an approach that capitalises on shared values and acknowledges the strengths of Nigerian immigrants' parenting styles while promoting acceptable alternatives to practices that might have attracted child intervention[61].

On the specific topic of breastfeeding, there is a paucity of literature on practices in the Black African population. Agboado *et al.* report that Black mothers breastfed longest but the differences compared with other ethnic groups were not statistically significant[62]. Other studies indicate that immigrant women were not informed about breastfeeding classes and that breastfeeding services were patchy and inconsistent[63].

2.1.4 Childhood vaccinations

There is a paucity of data on childhood vaccinations stratified by ethnic group as official vaccination data collections do not include ethnic group, though this is recorded in Child Health Information Systems that include vaccination status and in most GP recording systems. The most robust study is a population-based analysis of routine vaccination uptake patterns among different population groups from the QResearch database, using individual level primary care data[64]. Disparities in vaccination uptake of influenza, meningitis C and rotavirus, and measles, mumps and rubella (MMR) vaccines were assessed in 2,447,875 children aged under 18 years across ethnic groups. 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 different ethnicities for children. For influenza (n=1,617,686), the odds ratio (OR) for Black Africans, OR 0.93 (0.87- 0.97) was substantially higher than for Pakistanis (0.72 (0.68- 0.76)) and Black Caribbeans (0.49 (0.46- 0.51)). For Rotavirus (n=497,524), the OR for Black Africans was 0.75 (0.66- 0.86), similar to Indians, Pakistanis, Other Asians, and, again, higher than Black Caribbeans (0.51 (0.45- 0.59)). For MMR (n=1,679,356) Black Africans had an OR of 0.76 (0.68- 0.86), the lowest of the eight ethnic groups and lower than Black Caribbeans (0.88 (0.79- 0.98)). For meningitis C (n=1,679,356), Black Africans had an OR of 0.92 (0.86- 0.99), lower than Black Caribbeans (1.17 (1.09- 1.26)) but higher than other ethnicities (Indians, Other Asians, Chinese, and Other).

Smaller research studies offer mixed findings. The 5-in-1 Immunisation Programme was generally found to have lower coverage amongst smaller ethnic groups, notably, Somali, White-Polish, Nigerian, Caribbean, White-Irish, and Other/Mixed/unspecified ethnic populations[65]. An older study investigated whether a relationship existed between ethnicity and uptake of the first dose of mumps, measles and rubella (MMR1) vaccination among 6444 children aged between 18 months and 3 years living in the London borough of Brent. Examination of routine data on uptake of MMR1 vaccine found low coverage in the White group (57.5%) but significantly higher in the Africa (82.6%), Afro-Caribbean (74.7%), and Asian groups (87.1%) (uptake of mumps, measles and rubella vaccine by ethnic group relative to the White ethnic group: African 2.68 (2.07 to 3.35) Afro-Caribbean 1.62 (1.27 to 2.06), and Asian 3.44 (2.77 to 4.27). No evidence of a statistically significant interaction between socioeconomic status and ethnicity[66].

2.1.5 Childhood obesity

There is no Nigerian-specific data on child weight. In 2019-20 Black African children in England, aged 4-5, had the highest rate (15.9%) of obesity across ten ethnic groups, substantially higher than the White British group (9.7%). Amongst children aged 10-11, Black African children again had the highest rate (30.5%) of obesity across the ten ethnic groups, again substantially higher than the White British group (19.0%). Overweight/obesity in Black African children has been a consistent finding. The 2004 Health Survey for England (with an enhanced sample of minority ethnic groups) found that within the general population, 30% of boys and 31% of girls were classified as overweight or obese[67]. The proportion of overweight or obese boys was highest in the Black African population (42%), and Black African girls were also one of the ethnic groups most likely to be overweight or obese (40%) (exceeded only by Black Caribbeans). The Kings Fund (Raleigh and Holmes 2021) suggest that 'some of these differences may be associated with higher levels of deprivation among ethnic minority groups, as children in deprived areas are twice as likely to be obese than those in less-deprived areas'[68].

2.1.6 Childhood poverty

There is a substantial body of evidence for childhood poverty in Asian and Black households, but no granular information on Nigerian children and families in the UK. A report by ONS found that the Black (30%) high-level ethnic groups had a higher percentage of children living in low-income households than the national average[69]. 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.

Eligibility for free school meals (FSM) provides another measure 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[70]. 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[71].

2.1.7 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[72]. 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%)[73]. 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.

2.1.8 School readiness

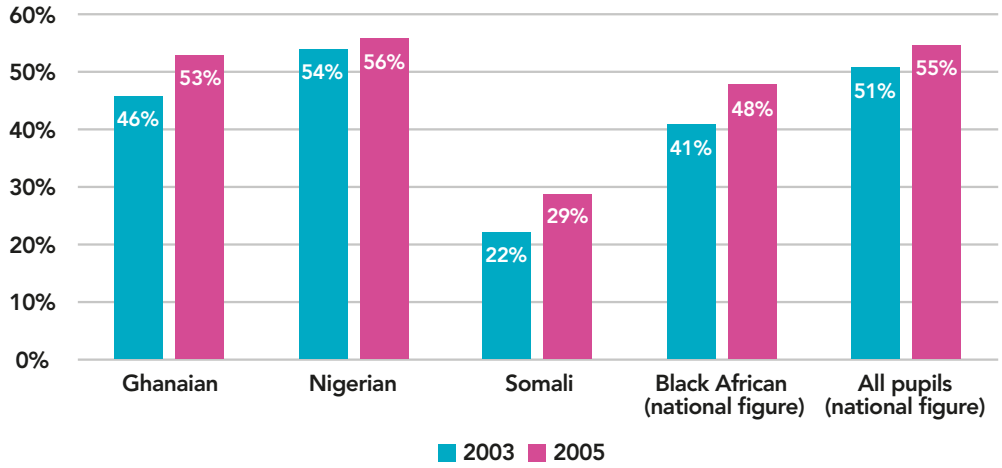
Readiness for school is one of Public Health England's Public Health outcomes Framework health equity indicators. It is defined as the number of children not achieving a good level of development at the end of reception (Early Years Foundation Stage) as a percentage of all eligible children (it is the 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 Africans', around 30%, was close to that for England as a whole and also the Any Other Asian Background, Chinese, and Mixed: White and Black African groups[74].

Public Health England's 'fingertips' Public Health Profiles for 2018/19 provide more recent data[75]. 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).

Figure 12 shows older statistics from 2003 and 2005 from a DES report[76]. It highlights that Nigerian pupils achieved above the average for all Black African pupils, and above the average for all pupils; however Somali pupils achieved well below the average for Black African pupils. These statistics do, however, indicate that levels of attainment within the Black African extended codes have improved: the increase in the proportion of Somali pupils achieving 5+ A*-C is aligned with the increase in the proportion of all Black African pupils achieving 5+ A*-C, at 7 percentage points; this is a higher increase than was seen for 'all pupils' nationally[77].

Figure 7: Percentage of Black African pupils achieving 5+A*-C at GCSE, 2003 and 2005



Source: DES report (Department for Education and skills, Ethnicity and Education, 2006)[78].

2.1.9 School absences and exclusions

In 2017/18 in England pupils from the Black African (3.0%, 5.1%) and Chinese (2.5%, 3.0%) ethnic groups had the lowest rates of overall absence and persistent absence, compared with the White British group (4.9%, 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 4.13% for the Black African 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 0.07%, compared with 0.10% for the White British group. The rate for the 'Black' group in Birmingham was 0.19%.

2.1.10 Socio-economic position and educational attainment

It is likely that socio-economic position underlies some of the differentials in educational attainment across language groups. Von Ahn *et al*. have added to the relevant Annual School Census indicators - whether or not a pupil receives free school meals and an index of deprivation describing the pupil's residential neighbourhood - using record linkage, yielding additional variables for 3 or more children and single parent. In Newham the Nigerian Yoruba group had the lowest proportion of single parents across eight language/ethnic groups and the lowest proportions on free school meals and Council Tax Benefit, factors which may contribute to the differences in educational attainment[79].

18.2% The Black African group had the highest proportion admitted to hospital for mental health, higher than

6% ALL PEOPLE **13.5%** BLACK CARIBBEANS **16.2%** OTHER BLACK

66.2% OF BLACK AFRICAN PATIENTS 'RELIABLY IMPROVED' FOLLOWING TREATMENT FOR ANXIETY AND DEPRESSION, LOWER THAN

68.1% WHITE BRITISH

These findings raise issues of inequalities in access and referral to psychological (IAPT) and other therapies

According to the 2004 Health Survey for England Black African men had one of the lowest rates of current cigarette smoking **21%**

BELOW THE GENERAL POPULATION 24%

The percentage of people taking any illicit drug in the past year was

HIGHEST FOR THE 'BLACK /BLACK BRITISH' GROUP

14.3% MEN **9.7%** WOMEN

IN ONE SURVEY ALMOST ALL OF THE PARTICIPANTS WHO HAD EXPERIENCED DOMESTIC VIOLENCE IN A RELATIONSHIPS WERE FIRST GENERATION IMMIGRANTS FROM NIGERIA,

who came to the UK on the entry or residence permit (visa) of their partner or husband

2.2 Mental Wellness and Balance

Mental Wellness and Balance Key Findings:

- Black African group had the highest proportion admitted to hospital for mental health (18.2%), higher than for all people (6%) and higher than both Black Caribbeans (13.9%) and Other Black (16.2%) patients.
- The proportion of Black African patients 'reliably improved' following treatment for anxiety and depression was 66.2%, lower than the White British group (68.1%). These findings raise issues of inequalities in access and referral to psychological (IAPT) and other therapies.
- According to the 2004 Health Survey for England Black African men (21%) had one of the lowest rates of current cigarette smoking and below the general population (24%).
- The percentage of people taking any illicit drug in the past year was highest for the 'Black/Black British' group (14.3% for men and 9.7% for women).
- In one survey almost all of the participants who had experienced domestic violence in a relationships were first generation immigrants from Nigeria, who came to the UK on the entry or residence permit (visa) of their partner or husband.

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

Most of the data on mental well-being is only available for broad ethnic groups. The Mental Health Minimum Dataset provides the most comprehensive information on the number of people in contact with adult and older adult mental health services[80]. It shows that while Black Africans had a relatively low contact rate with services, those who were in contact with services had a very high admission rate to hospital[81]. In 2013-14 a total of 13,817 Black Africans were in contact with such services. This represented a population-based standardised rate of 3,005.0 per 100,000, the lowest in the Black group (Black Caribbeans had a rate of 4,535.7 and Black Other 9,914.7) and lower than for the White British group (3,514.4) and the Mixed White and Black African group (3,238.8).

81.8% (11,301, comprising 11,232 NHS and 69 independent patients) of those Black African patients in contact with services were not admitted to hospital, that is, people who were only in contact with community mental health services. This was the lowest percentage of any of the census ethnic groups, and compares with 86.1% of the Black Caribbean group and 93.7% of the White British group. Conversely, the Black African group had the highest proportion admitted to hospital (18.2%), that is, people who spent time in hospital in that year, more than three times higher than for all people (6%) and higher than both Black Caribbeans (13.9%) and Other Black (16.2%) patients. The age and sex standardised rate for those who spent some time in hospital of all those in contact with services was 12.9 per 100 (CI 0.6), again the highest of any ethnic group and almost twice the rate for the White British group (6.5%). These figures could be indicative of a greater need for mental health services within these ethnic groups, or more complicated needs, once they are in contact with mental health services[82].

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[83]. 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.

Amongst those Black Africans with a hospital stay during the year (2,532), 50.6% (1,281) were subject to the Mental Health Act 1983, the highest of any of the Census ethnic group categories and just above the Chinese (50.0%). Of these hospital stays subject to the Mental Health Act 1983, 60 (4.7%) were court and prison disposals, 1,154 (90.1%) civil detentions, and 67 (5.2%) subject to holding powers, compared with 2.6%, 86.2%, and 11.3%, respectively, in the White British group. 47.1% of hospital stays 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[84].

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 which, however, 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[85]. 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[86].

2.2.3 Treatment types and outcomes

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, provides data on the percentage of patients showing improvement, deterioration or no change following therapy across the 16 ethnic categories[87]. The proportion of Black African patients 'reliably improved' was 66.2%, lower than for the White British group (68.1%); the proportion showing 'no reliable change' was 25.3%, similar to the White British group (25.4%); and the proportion 'reliably deteriorated' was 7.1%, higher than for White British (5.5%). However, for Black Africans the 'reliably improved' percentage had increased across the 4 years 2015/16 to 2018/19 from 58.8% to 66.2%. Black African women (66.9%) were more likely to have 'reliably improved' than Black African men (64.6%).

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[88]. Moreover, Black and minority ethnic people were less likely to self-refer than White British service users, and more likely to be referred through community services. A study by Harwood *et al*. focussing on IAPT users in South London, found that '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'[89]. 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), the effectiveness in service delivery and impact have yet to be assessed[90].

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%)[91]. 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 National systems/models for mental health services

The Care Programme Approach (CPA) is a national system which sets out how mental health services should help people with mental illnesses and complex needs[92]. National guidance exists though each provider of mental health services has their own CPA policy. According to NHS Choices it is recommended that the person who needs CPA support is involved in the assessment of their own needs and in the development of the plan to meet those needs. The person should be informed about their different choices for care and support available to them, and they should be treated with dignity and respect. Of the 13,847 Black Africans in contact with services 41.3% had Care Programme Approach (CPA) status, in common with Other Black/Black British subgroups (Black Caribbean, 39.9%; Other Black, 40.2%)[93]. This compared with 20.5% amongst all people and 22.3% in the White British group. Rates were also lower in the pan-ethnic Mixed (31.3%) and Asian or Asian British group (26.8%). This suggests that people from the Black/Black British ethnic groups are presenting with more complex needs.

Mental health care clusters (or care clusters) are the nationally mandated currency model for mental health. The model covers most mental health services for working age adults and older people. The care clusters were mandated for use from April 2012 by the Department of Health (DH). The 'care clusters' approach allows mental health services to group people together, based on their needs. There are 21 care clusters, further grouped into three 'super classes' - Non-Psychotic, Psychotic and Organic - based on much broader similarities in need. There is substantial variation in the super class of care clusters assigned between ethnic groups. At the end of the year the number of 'super class' care clusters assigned for the Black African group were 2,016 non-psychotic, 6,380 psychotic, and 464 organic. This compares with 245,630 non-psychotic, 162,636 psychotic, and 212,744 organic in the White British group. Thus, care clusters in the Non-Psychotic super class were more frequently assigned to people in the White than in the Black African and Other Black groups. More care clusters were assigned from the Psychotic super class to people in both the Asian/Asian British (20,338, 52.9%) and Black or Black British (21,102, 68.3%) ethnic groups than in the White group[94].

However, within the Black/Black British groups, Black Africans had lower median lengths of stay overall and for ward security levels. With respect to all discharges of Black Africans in 2013/14 (2,733), the mean length of stay was 29 days, similar to the Asian/Asian British and Chinese groups but

lower than that for Black Caribbeans (40 days). The White British median length of stay was 22 days. On low secure wards (112 discharges) it rose to 38 days (much lower than for Black Caribbeans, 76 days, and Black Other, 55 days). On median secure wards the median length of stay for Black Africans was 135 days, substantially below the 335.5 days for Black Caribbeans and 191.0 days for the Other Black group. However, on high secure wards, Black Africans (2185.5 days) had a much longer median length of stay than Black Caribbeans (1,596.5 days) and Other Black (15.0 days) and the 77.5 days for the White British group.

2.2.5 Increased risks for psychosis

One of the most consistent findings for the mental health of Black Africans and other 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 has spoken of 'an epidemic of psychotic illness in those of African and Caribbean origin'[95]. 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[96]. 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.* 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)[97]. 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), '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)[98]. 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 (2005, 2007) 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'[99, 100]. 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.

2.2.6 Post-traumatic stress disorder (PTSD) and depression in migrants/asylum seekers

PTSD and depression are amongst the most frequently reported health problems among asylum seekers. Some studies have yielded estimates as high as a half with PTSD and a fifth with major depressive disorders amongst refugees settled in the UK. Both pre-migration experiences of violence and post-migration social difficulties appear to determine the severity of PTSD and depression. Vulnerable groups of asylum seekers and refugees, such as children from war zones, are particularly likely to experience mental health problems, including high rates of PTSD.

Only a few studies report the prevalence of PTSD in Black African samples. Frissa et al (2013) sought to estimate the prevalence of PTSD in a representative sample of an inner city, SE London population. A community sample of 1,698 adults aged 16 years and over were interviewed face to face with structured survey questionnaires. Amongst the sample of Black Africans (234, 13.8%), the prevalence of PTSD symptoms was 5.8% (95% CI, 2.7-8.8). This yielded an adjusted (age and gender) odds ratio of 1.1 (0.6-2.1)[101].

2.2.7 Suicide rates

Black Africans had a relatively low suicide rate (ONS 2021). ONS data on age-standardised suicide rates (ASMR) per 100,000 by ethnic group, age (10 years and above), and sex, deaths registered in England and Wales between 2017-2019 (ONS 2021), were 7th lowest amongst 10 ethnic groups for Black African males (ASMR 5.2, CI 3.7-6.9), compared with 14.9 (14.6-15.2) in the White group, and 14.0, for all males. Black African females had an ASMR of 3.4 (2.0-5.2), in the range 7.1 (Mixed) - 1.3 (Pakistani), and 4.7 for all females[102].

2.2.8 Attitudes of the Nigerian and Black African community towards mental health and associated services

There is only limited evidence on the attitude of Nigerians and other Black Africans towards mental health and services. A qualitative study of 10 students who had migrated from the Niger Delta to the UK for study provides insights into an immigrant population[103]. The study explored the perceptions of stigma and mental disorders. The findings showed an overall limited understanding of the causes of mental disorders, though respondents with relatives with a disorder expressed fewer stigmatizing attitudes. Respondents attributed such disorders to a variety of causes, including witchcraft, evil practices of individuals/parents, spells from an enemy and other supernatural forces, use of India-hemp (cannabis), hard drugs (cocaine and heroin) or other noxious substances, and also hereditary. In Nigeria stigma is ingrained in the local culture, leading to non-diagnosis or the prevention of seeking early treatment. Mental disorders were reported to impact specifically on relationships with others, maintaining secrecy of the illness, and poor marriage prospects. The negative portrayal of what are described as 'mental disorders' in films (home videos) in Nigeria was reported to strongly contribute to the continuing stigmatization of these disorders.

Some similar findings were reported in a Birmingham-based qualitative study by Rabiee and Smith, involving interviews and focus groups with 97 service users, carers, etc. (including 51 Black Caribbeans and 21 Black Africans)[104]. Stigma related to mental illness was highlighted by a number of informants and examples were offered of people trying to hide mental illness or explain it in more favourable terms. Some talked of the fear of being permanently labelled as mentally ill and about the impact of mental illness on marriage prospects. Other concerns were insufficient provision of psychological therapies and concerns about high dosage of medication. Africans tended to rely on support from family, friends, faith-based sources of help and GPs, compared with Black Caribbeans' use of voluntary and statutory services such as hospital care, community-based early intervention, day care services, and assertive outreach. Participants talked directly or indirectly about their spiritual beliefs (including obeah, juju, spirits, magic and curses). One person commented that these beliefs were neither understood nor respected by mental health services staff. The authors conclude that there is a need to expand professional education that promotes an understanding of the diverse cultures and traditions of Black African and African Caribbean peoples.

Finally, understandings of depression were explored in the Yoruba ethnic group in Southwark (where 7.5% of school children speak Yoruba or a Benuic language), South London through qualitative, semi-structured interviews with 20 Yoruba people recruited from primary care. The Yoruba were mostly Christian, but some of their Christian churches also merged into traditional religious practices, with soothsayers as part of the church community. Fourteen Yoruba said that they had been depressed. Curses, black magic, evil spirits and the devil were mentioned frequently amongst the Yoruba people as causes of depression. Some Yoruba people explained that families could suffer mental illness because of misdeeds of their ancestors. Amongst the Yoruba people, although family problems were one of the most important causes of depression, break-up of friendships and partnerships and the resulting isolation and anguish were also mentioned frequently, especially in the absence of a protective extended family and supportive neighbourhoods[105]. Most of the Yoruba people said they would feel ashamed by a diagnosis of depression and that marriage prospects could be threatened. Traditional Western medicine, such as seeing a GP or taking an antidepressant drug, ranked below other approaches to managing low mood and depression and raises questions about its value.

2.2.9 Smoking

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

Prevalence rates for Black African self-reported cigarette smoking have been consistently amongst the lowest across ethnicities and have been declining over the last two decades[106]. According to the 2004 Health Survey for England, Black African men (21%) had one of the lowest rates of current cigarette smoking and below the general population (24%)[107]. Amongst Black African women, only 10% 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 African men and women were reported as 18% and 5%, respectively. Similarly, Karlsen *et al.* calculated rates for pooled Health Survey for England data for the years 2006-8. 12% of Black African men and 4% of Black African women were current cigarette smokers[108].

A more recent analysis (Aspinall and Mitton 2014) used the GP Patient Survey and Integrated Household Survey to provide estimates[109]. According to the GP Patient Survey for 2012, 12% of Black African men were regular or occasional smokers compared with 3% of Black African women. Analysis of the Integrated Household Survey for England and Wales, pooled for the years 2009/10-2011/12, showed that Black African men born outside the UK had lower smoking rates than the UK-born (14.3% vs 18.5%), a prevalence ratio (UK born: non-UK born) of 1.29 (95% CI 1.06-1.57). The difference was even larger for Black African females: 4.4% of the non-UK born were current cigarette smokers compared with 11.1% of the UK-born, a prevalence ratio of 2.54 (1.97-3.28). There is only slight evidence of a social class (NS-SEC) gradient in smoking prevalence for Black African men and none for Black African 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[110]. 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.

Two population groups merit particular attention: 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)[111].

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 African group were lower (12% and 9%, respectively)[112]. 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. 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[113]. 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[114].

There is limited data on interventions to address smoking and their outcomes by ethnic group. The Nuffield Trust 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 varied from 56.1% for Pakistanis to 34.4% for the Any Other ethnic group, with Black Africans occupying a middle position (48.6%). Amongst males the range was 55.7% (Pakistanis) to 37.6% (Any Other ethnic group), with Black Africans again occupying a middle position (49.4%). The respective proportions for females were 57.8% (Pakistanis), 30.3% (Any Other ethnic group), and 46.7% (Black Africans)[115].

A robust analysis for London, based on pooled individual records 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 and within the Black ethnic groups the poorest access was from the Black African group. The ethnic group significantly less likely to quit smoking at 4 weeks was the Black ethnic group (African, Caribbean, Mixed White and Black African) along with the Pakistani ethnic group[116, 117]. The quit rate analysis showed they have significantly lower quit rates (44.5%) compared to other groups (50.1%) (x^2 233.1 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%) (x^2 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%) (x^2 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.

2.2.10 Alcohol use

A variety of sources consistently indicate only modest use of alcohol in the 'Black African' groups. The 2004 Health Survey for England asked about usual drinking frequency amongst respondents aged 16 and over, importantly reporting data for 'Black Africans' rather than the pan-ethnic 'Black' group. 17% of Black African men drank on 3 or more days a week, a substantially lower proportion than Black Caribbean men (28%) and men in the general population (41%). A third (32%) of Black African men were non-drinkers, compared with 15% of Black Caribbean men and 8% of men in the general population. Only 6% of Black African women drank 3 or more days a week, lower than Black Caribbean women (11%) and women in the general population (26%). 45% of Black African women were non-drinkers, compared with 21% of Black Caribbeans, and just 14% of women in the general population[118].

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. The pattern for women was similar. 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. Black African women were somewhat less likely to exceed 3 (25%), or 6 (4%) daily units compared with Black Caribbean, Chinese, and Indian women.

The 2014 Health Survey for England (using pooled data for the 2012, 2013, and 2014 HSE) 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[119].

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 being substantially lower in the Black African group (17% and 15%, respectively)[120]. 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[121]. 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.

2.2.11 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[122]. 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.

Pupils who have taken drugs in the last year, by ethnicity 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[123].

2.2.12 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)[124].

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[125].

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 were 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 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[126].

Finally, in detecting and treating high blood pressure in Black Africans in Britain, Akinlua *et al.* have argued specifically with reference to Nigerian immigrants to the country, that the beliefs of these patients should be considered[127]. Based on interviews with a convenience sample of 27 Nigerian migrant members of a West London Pentecostal church, the investigators reported a diversity of beliefs about hypertension which incorporated both orthodox and culturally framed ideas and some participants both ideas. Four ethnic understandings of hypertension were identified, namely, 'Raised or high blood volume', 'Burning or boiling blood', 'Resistance to blood flow', and 'Rising blood or blood that shoots up' (translations of the local ethnic names for hypertension). The explanation of burning or boiling blood was peculiar to the majority of Yoruba ethnic group participants. 'Rising blood or blood that shoots up' was the meaning given to hypertension by participants from Hausa and Igbo ethnic groups. Several beliefs about causes of hypertension were indicated, grouped as 'biomedical causation', 'stress', 'hereditary', and 'ethnic models of causation'. Most participants held more than one belief about the causation of hypertension. Some participants mistakenly believed that the absence of symptoms meant absence of hypertension. With respect to perceptions of treatment, only a few participants believed that use of orthodox drugs alone was effective. The investigators conclude that eliciting beliefs from individuals about hypertension is important because it may help to create culturally appropriate care plans and blood pressure management programmes. Moreover, this may also help to improve the relationship between health care providers and patients through the sharing of beliefs.

2.2.13 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[128, 129]. The rate for Black Africans, 4.1%, was lower than that for White British (5.9%), but higher than the Asian groups (except Indian). The highest rates were in the 'Mixed White/Asian' (8.8%) and 'Mixed White/Black Caribbean' (10.6%) groups. Women were more likely than men to report domestic abuse in the previous 12 months: 3.2% of Black African males vs. 4.9% of Black African females (both lower than for the White British group: 3.7% and 8.0%, respectively).

Femi-Ajao provides the findings of a qualitative research study into intimate partner violence and abuse against Nigerian women resident in England[130]. In-depth semi structured interviews were undertaken in 2012-13 with 16 Nigerian women aged 18 to 54 resident in England with lived experience of intimate partner violence and abuse. Fifteen of the 16 study participants were first generation immigrants from Nigeria, who came to the UK on the entry or residence permit (visa) of their partner or husband. Half of the study participants who were no longer in the abusive relationship were abandoned by the male perpetrator. The three main factors influencing the disclosure and help-seeking practices of these Nigerian women were socialisation from country of birth, immigration status, and acculturation in the country of immigration[131]. Socialisation from country of birth included an acceptance and endurance of intimate partner violence. Seeking help from persons of importance in the Nigerian ethnic community enabled them to uphold their family unit. Findings from this study showed that participants were likely to endure the abuse for fear of visibility, destitution, and deportation associated with their immigration status. Seven women had stayed beyond the expiration of their visa, and two indicated they were dependent on their partner's visa. In some cases only the woman was subject to immigration control while in others it was both the woman and her partner. Threats by the partner of deportation, to move out, or take the family back to Nigeria silenced some of these women. For the study participants acculturation in the country of immigration was prolonged, particularly with regards to securing employment, developing friendships and learning the culture in England. Some were abandoned by their abusive male partners in England and were left with no means of support. Acculturation was influential in whether a woman would disclose to and seek help from statutory services, particularly on issues of trust and confidentiality. For study participants socialised within the collectivist society of Nigeria, and not previously accustomed to utilising statutory services for intimate partner violence, trust and confidentiality were very important.

Previous studies have reported that women from ethnic minority populations tend to distrust people outside their ethnic community. These Nigerian women were likely to seek help from leaders and members of their ethnic community groups and faith-based organisations and the author concludes that there is a need for collaborative working with these organisations to improve access to and use of existing intimate partner violence services.

POPULAR AND TRADITIONAL NIGERIAN FOODS INCLUDE

JOLLOF RICE, IYAN (POUNDED YAM), ÀMÀLÀ (YAM FLOUR/ CASSAVA FLOUR/ PLANTAIN FLOUR), OGBONO SOUP (AFRICAN MANGO SEED SOUP), PUFF-PUFF (FRIED SWEET DOUGH BALL), ÀKÀRÀ (FRIED BEAN CAKE), PEPPER SOUP, AND SUYA (SPICY GRILLED KEBAB)

OBESITY

in 2019/20

67.5%

of the 'Black' group adults were overweight/obese, the highest across seven ethnic groups

89%

OF NIGERIAN WOMEN IN ONE STUDY POPULATION WERE CLASSIFIED AS OVERWEIGHT OR OBESE

THE PERCENTAGE OF PEOPLE WHO EAT

5-A-DAY

was the lowest in the 'Black' group (data only for the pan-ethnicity was available)

44.2%

THE HIGHEST PROPORTION WAS THE WHITE BRITISH 55.9%

A BOLDER HEALTHIER BIRMINGHAM

2.3 Healthy and affordable food

Healthy and Affordable Food Key Findings:

- The percentage of people who eat '5 a day' was the lowest in the 'Black' group (data only for the pan-ethnicity was available) (44.2%); the highest proportion was in the White British (55.9%) group.
- In 2019/20 the 'Black' group (67.5%) had the highest proportion of overweight/obese adults across seven ethnic groups.
- 89% of Nigerian women in one study population were classified as overweight or obese.
- 1 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%).

This chapter covers eating habits and overweight/obesity in Black Africans, dietary habits and overweight/obesity in Nigerian women, and food poverty and insecurity.

2.3.1 Eating habits

The 2004 Health Survey for England provides the most comprehensive analysis of eating habits by ethnic group[132]. 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). 31% of Black African men met

the five-a-day recommendation, similar to Black Caribbean men (32%), 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 African women 32% met the recommendation, slightly higher than Black Caribbean women (31%), 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 African men having a score of 20 (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), ranging from 17 among Indian respondents to 20 among Black African, 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 (from 74% among Black African men to 95% among Bangladeshi 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%). Black African women (83%) occupied an intermediate position.

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[133, 134]. 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 African 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[135]. 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.

Again, the Health Survey for England, 2004, provides the most comprehensive information on overweight/obesity and enables a breakdown of overweight/obesity by gender and census granular ethnic group category to be obtained. The mean body mass index (BMI, a measure that takes into account weight and height, calculated as weight [kg] divided by squared height [m^2]) of men and women in the general population was 27.1 kg/m^2 and 26.8 kg/m^2 respectively. Black African men had a mean BMI somewhat lower (26.4) than men in the general population. However, mean BMI was markedly higher among Black African (28.8 kg/m^2) and Black Caribbean (28.0 kg/m^2) women. Indeed, Black African women had the highest mean BMI amongst all minority ethnic groups[136].

22.7% of men and 23.2% of women in the general population were obese (a BMI over 30 kg/m^2). 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. Black African men had a rate substantially lower (17.1%) than the Black Caribbean group (25.2%) and

the general population, though higher than the South Asian and Chinese group. Amongst women, obesity prevalence was highest in the Black African (38.5%) group but also high in the Black Caribbean (32.1%), and Pakistani (28.1%) groups. The largest difference in prevalence of obesity between men and women was found in Black Africans, where women's prevalence was higher than that in men by over 20 percentage points (38.5% vs 17.1%).

The prevalence of overweight including obesity (BMI over 25 kg/m^2) was 66.5% among men and 57.1% among women in the general population. Black African men (61.8%) had a substantially lower overweight (including obesity) rate than Black Caribbean (67.4%) men, indeed the lowest rate apart from South Asian and Chinese men. Among women, the prevalence of overweight, including obesity, was higher than the general population in the Black Caribbean (64.5%), Black African (69.8%) and Pakistani (62.3%) groups. The other minority ethnic groups had lower rates than the general population. Indeed, the Black African rate was the highest amongst all the groups.

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 lowest in Black African men (0.87) and Chinese men (0.87) and highest 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).

Mean waist circumference was 96.5 cm for men and 86.4 cm for women in the general population. Mean waist circumference ranged from 86.8 cm in Chinese men to 97.3 cm in Irish men, Black African men (90.6) occupying an intermediate position. Amongst women mean waist circumference ranged from 77.6 cm in Chinese women to 90.2 cm in Black African women.

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 lowest rate in men was found among Black Africans (16%) and the highest among Pakistanis (37%). Amongst women, 32% of Black Africans had a raised waist to hip ratio, higher than in the general population but intermediate in the range from Chinese (22%) to (50%) amongst Bangladeshi women.

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. 19% of Black African 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.

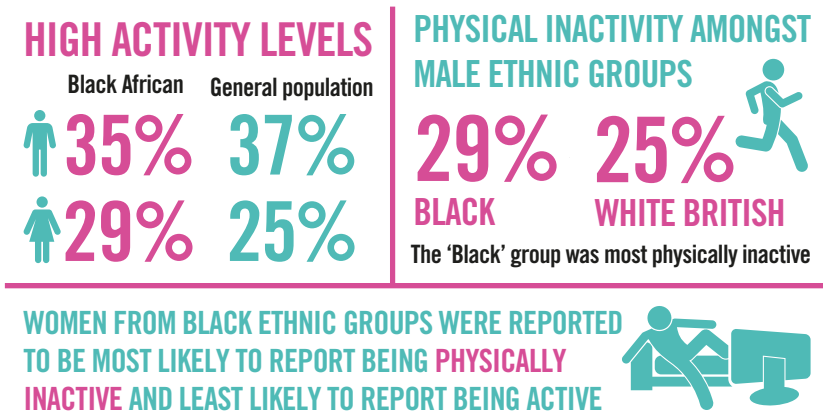
2.3.3 Dietary habits and overweight/obesity in Nigerian women

Some specific research findings are available for Black African Nigerian women[137]. These authors investigated dietary intakes in 52 Nigerian pregnant women in their second or third trimester of pregnancy in a Dublin maternity hospital. Eighty-nine per cent of the study population were classified as overweight or obese. These women appeared to be maintaining traditional African dietary habits and had a healthy macronutrient composition in the diet. However, they were regarded as representing a vulnerable obstetric group that may be at risk of adverse pregnancy outcomes due to high obesity rates and inadequate micronutrient status in early pregnancy.

2.3.4 Food Poverty and insecurity

Prayogo *et al.* 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'[138]. Given the concentration of the Black African community 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[139]. 1 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 7 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 1 in 12 (8%) respectively.



2.4 Active at Every Age and Ability.

Active at Every Age and Ability Key Findings:

- 35% of Black African men and 29% of Black African women had high activity levels, compared to 37% and 25% of the general population.
- Amongst males the most physically inactive group by ethnicity was the 'Black' group (29%), compared to 25% physical inactivity amongst the White British population.
- Women from Black ethnic groups were reported to be most likely to report being physically inactive and least likely to report being active.

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[140].

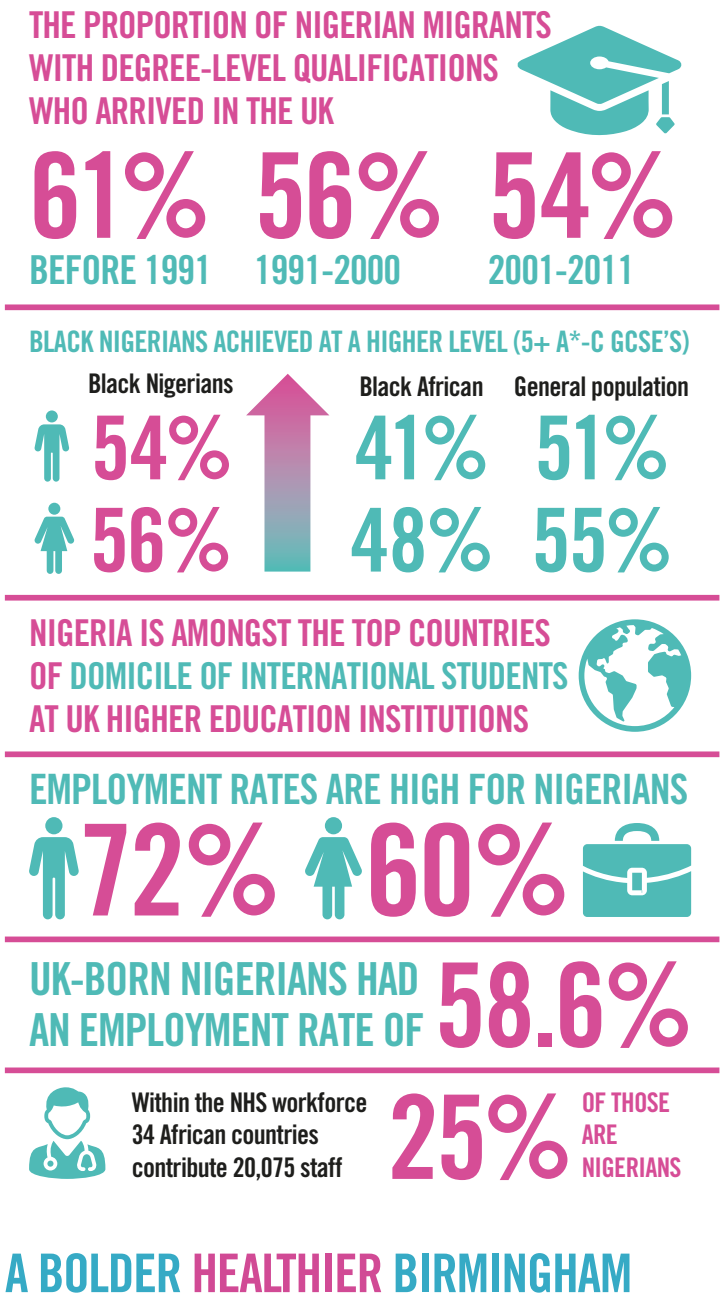
Two thirds of men in the general population reported regular participation in any physical activity (at least once a week on average). Regular participation was also reported by about two thirds of those in the Irish, Black Caribbean, Black African minority ethnic groups. Six in ten women in the general population participated regularly in physical activity, the proportion amongst Black African women being 57%.

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[141].

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.



A BOLDER HEALTHIER BIRMINGHAM

2.5 Working and Learning Well.

Working and Learning Well Key Findings:

- The proportion of Nigerian migrants with degree-level qualifications was higher (61%) among those who arrived in the UK before 1991 compared with those who arrived 1991-2000 (56%) and 2001-2011 (54%).
- Black Nigerians achieved at a higher level (5+ A*-C GCSE's) (54% and 56%, respectively) than all Black African pupils (41% and 48%) and all pupils (51% and 55%).
- Employment rates are high for both Nigerian males (72%) and Nigerian females (60%).
- UK-born Nigerians had an employment rate of 58.6%.
- Within the NHS workforce 34 African countries contribute 20,075 staff with Nigerians making up 25% of this.

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 Africans are compared with other ethnic groups and across gender and age subgroups. Age-

standardised limiting long-term illness is also examined by country of birth using 2001 Census data.

Limiting long-term illness

Two measures of generic health status are available in the decennial census: 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 show important variations across ethnic groups and by gender[142, 143].

Age-standardised ratios of limiting long-term illness for men, comparing minority ethnic groups with the White British group, show that in 2011 Black African males were one of the healthiest ethnic groups. Their age-standardised illness ratio of 0.59 was only bettered by the White Other (0.55) and Chinese (0.42) categories. By comparison the age-standardised rate for Black Caribbeans was 1.02 (that is, worse than White British), similar to the Mixed White and Black Caribbean category (1.01) (Mixed White and Black Africans had a lower rate at 0.88). Black African females also occupied a favourable position on this measure. Their age-standardised limiting long-term illness ratio was 0.69, only White Other (0.61) and Chinese (0.44) being better. However, female Black Caribbeans had a ratio of 1.04 and Mixed White and Black Caribbeans 1.04 (worse than the 0.88 for Mixed White and Black Africans).

Moreover, Black African males and females had amongst the lowest rates of limiting long-term illness across age groups (0-15, 16-64, and 65 and over). In 2011 amongst 0-15 year old males, 3.55% of Black Africans had limiting long-term illness, ranking the fifth lowest rate after Other White (2.75%), Indians (2.59%), Chinese (2.37%), and Other Asian (2.33%). Amongst 16-64 year olds, Black Africans (6.92%) had the third lowest rate, after Chinese (4.34%) and Other White (5.89%). Even amongst the elderly (65 and over), Black Africans had the second lowest rate (42.61%), after the Chinese (39.45%). Similarly, Black African females report low proportions of limiting long-term illness across all three age groups. Amongst 0-15 year old Black Africans the proportion was 2.45%, only Other White (1.97%), Indians (1.96%), and Chinese (1.72%) had lower rates. Only 8.67% of 16-64 year olds had limiting long-term illness, only the Other White (6.67%) and Chinese (4.72%) having lower proportions. Finally, amongst the 65 and over population, Black Africans (54.24%) had the sixth lowest proportion with limiting long-term illness after Chinese, Mixed: White and Asian, Other White, White Irish, and Mixed: White and Black African.

Analyses of limiting long-term illness by region showed that Black Africans had less advantage (where advantage refers to the age-standardised illness ratio relative to the White British group: e.g. 2 indicates twice the White British illness) in London (with the health advantages being larger outside London) The advantage for Black African men in 2011 resident outside London was more than double that for those within London. The health advantage for Black African women resident outside London was around threefold.

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 amongst Black African men, age-standardised ratios were the second lowest (after the Chinese category) and Black African women had the third lowest (after Chinese and Other White). In 1991 (when the range of categories was much reduced), Black African males had the third lowest age-standardised ratio

of limiting long-term illness (after Chinese and Other Asians). Only Black African women had a somewhat different ranking of illness ratios, being the fifth ranking ethnic group in 1991 (with a ratio of 1.05 and therefore slightly worse than White British and also Chinese, Other Asian, Other, and Other Black).

One major drawback of these data is that they yield findings for the highly heterogeneous Black African group as a whole and not for national origin or other subgroups. Only limited information on generic health is available at this finer level of granularity. In the 2011 Census only one table was released for limiting long-term illness and general health by detailed country of birth. It was for the London Borough of Greenwich which had experienced a substantial increase (130%) in its Black African population between the 2001 and 2011 Censuses. Numbers are large enough to estimate persons who were limited a lot in day-to-day activities, aged 16 to 64 (as a % of total day-to-day activities, aged 16 to 64) and persons with bad/very bad health, not broken down by age (as a % of total general health). For LLTI only data for the age group 16-64 was released, thus ruling out age standardisation. However, the exclusion of the 65+ age group should substantially eliminate the effect of the old age group on the derived rates.

Amongst African countries of birth rates for persons who were limited a lot in day-to-day activities were high for Mozambique, some North African countries (Morocco, Tunisia, Egypt), Somalia, Ethiopia, countries that were predominantly Asian in migrant flows (Tanzania, Kenya, and Uganda), Liberia, Malawi, and Sierra Leone (all in the range 10.9%-5.1% limited a lot). By contrast, rates were low in Ghana (2.6%) and Nigeria (1.6%), representing the long-settled communities of migrants, and also in the Zimbabwe country of birth group (1.8%). In many countries of birth the proportions for limited a lot and with bad/very bad health were very similar.

Data to construct age-standardised rates of LLTI (and general health) by country of birth for African countries was only available for the 2001 Census. Age-standardised rates (ASRs) for migrants from different African countries, both Sub-Saharan and North African, resident in London, shows substantial variability, though this data is not cross-tabulated by ethnic group[144]. Not surprisingly, migrants with the highest rates of LLTI were those from countries with known high flows of refugees and asylum seekers to Britain, notably, Burundi, Somalia, Sudan, Eritrea, Algeria, Ethiopia, and Rwanda (all over 110). The rates were much lower for the two largest and long-established migrant groups: Nigeria and Ghana (under 80). Clearly, care is needed in interpreting these data from the 2001 Census as a high proportion of migrants from some countries (Zimbabwe and South Africa) are 'White' and from others (Kenya, Tanzania, and Uganda) primarily 'Asian'. Further, some of the variation may be due to cross-cultural differences in the interpretation of the limiting long-term illness question.

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[145, 146]. In the 2011 Census age-standardised illness ratios, relative to the White British group, showed that Black African men had the best health, followed by Other White and Chinese men. Amongst women, Black Africans had the third best health after Other White and Chinese women. The pattern of inequalities was the same when inequalities in general health

in 2011 are compared with those in 2001. Black African men and women had the second best health, after the Chinese group.

Other survey evidence

The foregoing findings of good generic health status amongst Black Africans is confirmed by other more recent survey evidence. Platt's analysis of the Labour Force Survey (2016 Q1 to 2019 Q4 (weighted)) showed that amongst men aged 45-59, the percentage of Black Africans with long-standing health problems (25.3%) was the lowest amongst eight White, Asian, Black, and Other ethnic groups, while Bangladeshi was the highest (49.7%)[147]. The percentage of Black African men with multi-morbidity (>1 health condition) was 8.7% (only Other White had a lower rate at 8.6%, while the Bangladeshi rate was 27.6%). The percentage of Black African women with long-standing health problems, 8.7%, was amongst the lowest (Other White was 8.6%) and Black African women with multi-morbidity (>1 health problem) was fifth lowest, the highest rates being found in Pakistanis.

2.5.2 Educational Attainment

In 2011 the Nigeria country of birth group had the highest proportion across 22 countries or broad regions of persons with degree-level qualifications amongst those arrived before 1991[148]. Further, amongst those who arrived 1991-2000 and 2001-2011, Nigerian migrants had one of the highest proportions of people with degree-level qualifications. The authors argue that 'this is because earlier immigration waves from Nigeria[149]. The proportion of Nigerian migrants with degree-level qualifications was higher (61%) among those who arrived in the UK before 1991 compared with those who arrived 1991-2000 (56%) and 2001-2011 (54%). The authors argue that 'this is because earlier immigration waves from Nigeria and the rest of Africa to the UK comprised African elites (including East African Indians of high socioeconomic status), students and professionals, while subsequent waves were more diversified and included economic migrants, refugees and undocumented migrants'. The corollary of the high proportion of Nigerian migrants with degree-level qualifications is that the percentage of this country of birth group with no qualifications arriving in the UK before 1991, 1991-2000, and 2001-2011 was the lowest across the 22 countries or broad regions, at around 5%. Thus, nearly all Nigerian migrants had at least some qualifications before arriving in the UK, irrespective of period of arrival.

Similarly, in the 2011 England and Wales Census, the Black African group had the lowest proportion (just 11%) of people aged 16 and over with no qualifications, compared with 24% for the White British group. On the measure of people with degree-level qualifications, Black Africans had the third highest percentage (40%), after Chinese and Indians, and substantially higher than White British (26%).

Nigeria is amongst the top countries of domicile of international students at UK higher education institutions (HESA 2021)[150].

School-based measures

In a recent study of an inner London local authority (Demie 2021) , of the largest ethnic groups sitting GCSE, Chinese, Indian, Bangladeshi, and Black African pupils performed the best, surpassing national averages for pupils achieving 9-4 grades in English and Maths in England[151]. Nationally, 60% of pupils got grade 9-4 in English and maths, but it was 65% for Black African pupils. Research studies have also shown substantial variations within the Black African category, based on national origins and linguistic sub-groups. However, the more extensive use of 'extended codes' in the Annual School Census has enabled a more granular picture to emerge, stratified by language and national origin. With respect to language, Von Ahn, Lupton, *et al.* used a linked dataset (Annual School Census and pupil educational attainment) to show significant variation by linguistic group within the Black African category[152]. The Black African Lingala, French, and Somali language groups have low attainment, while the Black African English, Yoruba, and

Igbo groups all have higher attainments than the Black Caribbean and Black African averages and Black African Igbo speakers have scores similar to White British students. The London Borough of Lambeth published differentials in educational attainment (% of pupils achieving 5+A*-C passes at GCSE) amongst selected Black African language heritage groups - Ibo, 73%, Yoruba, 65%, and Twi/Fante, 58% - that are consistent with these wider findings. These data have clear policy implications with regard to addressing under-attainment[153].

In addition an analysis by Strand *et al.* provides a robust analysis of attainment by language sub-group amongst Black Africans, adjusted for potential confounders. They identified the top 10 languages spoken other than English and compared their attainment with English speakers for both KS2 average point scores and KS4 Best 8 points score[154]. Results were adjusted for socio-economic deprivation and other student background variables. At KS2 Black African Igbo and Yoruba speakers achieved as well as English speakers, with Lingala speakers, for example, 6 National Curriculum months behind. Similar differentials are seen at KS4. Igbo and Yoruba speakers did as well or better than English speakers. However, Somali and Lingala speakers, for example, were 16 Best 8 points behind. All these differences were robust once socio-economic deprivation and other student background variables are controlled for. This analysis thus shows that first language can be an important factor in identifying subgroups within the Black African category that may be high or low attainers[155].

With respect to national origin subgroups, the Annual School Census uses a range of 'extended ethnicity codes' more detailed than the decennial census: the Black African extended codes include 'Angolan', 'Congolese', 'Other Black African', 'Ghanaian', 'Nigerian', 'Sierra Leonian', 'Somali', and 'Sudanese'. However, these are available for optional use so not all local authorities use them, though 'Black African' was the set of codes used by the largest number of local authorities. The proportion of local authorities using the 'Black African' set of codes in London was 52% in 2005. A total of 76,724 pupils were classified in the 'Black African' extended code set, of whom, however, 40% (n=30,481) were categorised as 'Other Black African'. The next largest Black African groups within those local authorities were Somali (n=21,077) and Nigerian (n=15,900), followed by Ghanaian (n=6,596), Congolese (1,098), Sierra Leonean (1,057), Sudanese (297), and Angolan (218)[156].

Findings on educational attainment are available for Ghanaian, Nigerian, and Somali pupils (the extended Black African categories with 4,000 or more pupils) achieving 5+ A*-C at GCSE in 2003 and 2005[157]. While all groups increased their attainment between 2003-05, Black Nigerians achieved at a higher level (54% and 56%, respectively) than all Black African pupils (41% and 48%) and all pupils (51% and 55%). Black Ghanaian pupils also achieved (46% and 53%) above the overall Black African level. Black Somali pupils achieved (22% and 29%) well below the average for all Black African pupils. More recent data confirms these differentials. The 2008 National Pupil Database showed that 60% or more of Black Ghanaians, Mixed White and Black Africans, and Black Nigerians achieved 5+ GCSE passes at Grades A*-C, but was much lower for Black Somali (34%) and Black Congolese (28%) pupils[158, 159]. The London Mayor's 2011 report on education reported that Black Nigerian and Ghanaian children were almost three times as likely to reach the national benchmark (of 5 GCSE's grade A*-C including English and Maths) as those from Black Congolese or Black Angolan backgrounds[160]. The concealment of these differentials by language and national origins in much standardised reporting has been a concern for several agencies, including the London Health Commission.

With respect to variations by religion, Burgess, Greaves, and Wilson report the number of GCSE/GNVQs at grades A*-C by religious affiliation within ethnic group for England, 2003-04[161]. Black African girls with no religion reported 9.77, Christians 7.12, and Muslims 4.39. The differential between

Black African Christian and Muslim boys was smaller, 5.68 and 4.83, respectively, while Black African boys with no religion reported 6.57. These findings are indicative as the differences were not statistically significant. Black African Christians outperformed Muslims with respect to highest educational qualification (higher, 54 vs 25%; A-level, 15 vs 18%; compulsory, 16 vs 20%; none, 14 vs 27%; and foreign/other, 2 vs 9%)[162].

Reasons for variations in educational attainment

There is a variety of evidence that indicates that Black Africans may be treated unfairly at all levels in the educational system. Studies in schools have shown that some teachers have substantially lower expectations for ethnic minority students. Business in the Community (2010) stated that Black African British students (as well as students of Black Caribbean, Pakistani, and Bangladeshi ethnic backgrounds) continue to be strikingly under-represented in the UK's most prestigious universities[163]. 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 have found racism to be commonplace[164].

Boliver has explored ethnic inequalities to Russell Group universities using a database of 68,632 UCAS candidates who submitted 151,281 applications in all[165, 166]. The mean offer rate for Black Africans was the lowest of all ethnic groups. She calculated comparative odds of an offer of admission using a variety of models (controlling for year of application, plus controls for other applicant characteristics, plus controls for prior attainment, plus controls for numerical competitiveness, plus interaction with percentage of ethnic minority applicants). For all but one of these models, Black Africans had the poorest odds of an offer of admission across minority ethnic group where the White group was the reference. Boliver concludes 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 (Boliver 2015).

With respect to secondary schooling, a study into 'what works' research (Demie and Mclean 2007) identified several good practices that contributed to the success of Black Africans, including strong parental support and links with African communities, effective support for EAL pupils, and use of an inclusive curriculum that met the needs of African pupils. Black African parents and pupils were found to place an extremely high value on education and teachers in the schools ensured that the curriculum met the needs and interests of these children[167].

2.5.3 Economic activity rates

Not all data in this section is available at a granular level that identifies Nigerian migrants. Comprehensive data on the labour market is available from the 2011 England and Wales Census, having the advantage that it is for all 16 ethnic categories rather than 'Black' and the other pan-ethnicities. Black Africans had a relatively low employment rate (59%, though 51% in the West Midlands), 14 percentage points below the White British group. Black Africans also had one of the highest unemployment rates (13% but 16% in the West Midlands), 8 percentage points higher than the White British group. 28% of Black Africans were economically inactive (33% in the West Midlands), compared with 22% in the White British group.

With respect to gender, a slightly higher proportion of Black African men (62%) were in employment (62%) but lower than Black Caribbean men (65%). The unemployment rate (14%) was exceeded by the Black Caribbean and Black Other groups. Inactivity amongst Black African men (24%) was higher than amongst Black Caribbeans (20%). Reasons for inactivity vary markedly across ethnic groups. 62% of Black African men were students (including full-time students), substantially higher than amongst Black Caribbean men, Other Black men, and White British men. By comparison, rates of retired and long-term sick or disabled, 2% and 10%, respectively, were much lower than in the White British group (23% and 30%, respectively).

55% of Black African women were in employment. For women, unemployment was highest in the Black African (12%), White and Black Caribbean (11%) and Other Black (11%) groups. The inactivity rate amongst Black African women was 32%. A high proportion of Black African women (46%) were inactive for the reason of being a student (including full-time student), exactly twice the rate for the general population and substantially higher than the rate for Black Caribbeans and Other Black group. 27% of Black African women were inactive because they were looking after the home or family. Again, rates of retired and long-term sick or disabled (3% and 8%, respectively) were much lower than in the White British group (27% and 17%, respectively).

Though the census does not provide a breakdown of the Black African group for economic activity data, pooled findings from the Labour Force Survey (LSF) for 2005-09 reveals substantial heterogeneity in economic activity across Black African country of birth groups. Amongst males, the proportion in employment was higher amongst Ghanaians (82%) than Nigerians (72%) but lower for Zimbabweans. Somalians had an exceptionally low rate at 34%. Amongst females Zimbabweans had the highest rate amongst Black Africans, although rates were also high for Ghanaians and Nigerians (60%), with only 14% of Somalis in employment[168].

2.5.4 Occupation and industry

The 2011 Census collected two sets of information about the jobs people held: the type of work undertaken and the industry in which they worked. The information was classified by occupation and industry for those who were employed in the week before the census was completed and reported for the population aged 16 and over in employment.

In the 2011 Census occupation was derived from a person's main job title and details of the activities involved in their job. Nine major occupations were reported, split into low skilled and high skilled. The Black African group had one of the highest proportions (54%) of men in low-skilled occupations, along with Pakistanis (57%) and Bangladeshis (53%), compared with 37% of men in employment in the general population who worked in low-skilled occupations.

In all ethnic groups women were more likely than men to be in low-skilled occupations. In the population as a whole 59% of women were in low-skilled occupations. However, the proportion of Black African women (58%) was only slightly higher than for men, the 4 percentage point difference being the smallest across all ethnic groups. Black African women occupied an intermediate position across all ethnic groups, the proportion being similar to Black Caribbean and Other Black women.

With respect to industry, such data was derived from information provided on the main activity of a respondent's employer or business. Black African men were distributed across all categories of industry but concentrated in wholesale and retail trade (13.4%), administrative and support service activities (11.6%), and human health and social work activities (15.2%). Black African women showed a more concentrated pattern, 38.5% being in the human health and social work activities category and smaller proportions in wholesale and retail trade (11.1%) and education (9.1%).

2.5.5 Human health and social work activities

Women from Black ethnic minorities and Other Asians were highly concentrated within the 'Human health and social work activities' category. Nearly 4 in 10 (38%) of Black African women were working in this sector. Census data on this activity group is limited. The NHS annual workforce censuses for medical and non-medical staff incorporate the Black African count into an aggregate Black African/Black Caribbean/Black Other group. However, data has been abstracted from the Electronic Staff Record on qualified Black African Nurses in England at end of September for each year for the period 2008-2014. This shows that the headcount for Black African nurses increased from 16,263 to 18,354 over 2008-2010, then stabilised at around 18,500 until 2014[169].

NCHS data for 30 September 2014 indicates that there were 353,359 qualified nursing, midwifery and health visiting staff in NHS Hospital and Community Health Services in England (that is, in contracted positions within English NHS organisations). These included 273,297 White staff, 4,154 Mixed, 25,125 Asian or Asian British, 26,486 Black or Black British, 1,445 Chinese, 9,387 Other, and 13,465 Unknown ethnicity, total minority ethnic groups (whose ethnic group is known) comprising 17.1% in this staff group. The Black or Black British group contributes more nurses, midwives, and health visiting staff than any other minority ethnic group and around 70% of these Black staff are likely to be Black Africans, a group that therefore makes a key contribution to the NHS.

More detailed information on the source countries of newly registered nurses is available from the Nursing and Midwifery Council Register and the research undertaken by Gloria Likupe provides a rich source of data on the motivations and experiences of Black African nurses in the United Kingdom. During the late 1990s and early 2000s there was a very high level of recruitment of nurses from overseas, to work in the NHS and in private health care[170]. Such recruitment took place in spite of the Department of Health's 2001 (advisory) Code of Recruitment Practice advising against recruitment of nurses from countries with nurse shortages of their own, most of which were sub-Saharan African countries. Over the years 1998/99 to 2007/08 the largest African source countries were South Africa (9,810), followed by Nigeria (3,460), Zimbabwe (2,232), and Zambia (1,006). Numbers increased gradually from these African countries, reaching a peak in 2001-02 (3,789) and remaining high in 2002-03 (3,195) and 2003-04 (3,118). Thereafter numbers gradually declined. Data on initial registrations on the NMC register shows that non-EEA source countries have in aggregate contributed very low numbers since 2008/09 (though initial registrations from EEA countries have risen sharply from 2010/11 to 2014/15). There is some evidence that numbers from African countries are rising again. For example, the NMC's most recently published figures reveal that the nursing and midwifery register had grown by 13,011 to a total of 744,929 in the six months to September 2021 , a rise of 1.8%. 1,334 nurses joined the register from Nigeria and 336 joined from Ghana, both countries on the WHO's Health Workforce Support and Safeguard List[171]. These numbers are very substantially higher than in the years 1998/99-2007/08. The recruitment of Black African nurses from sub-Saharan African countries over decades has resulted in this ethnic group comprising a significant proportion of all staff and the nursing staff in major NHS trusts in London, for example, 15%-25% and 30% respectively in 2013-14. The proportions in Birmingham trusts were much lower, e.g., 3.4% of the registered nursing staff (including 0.09% Black Nigerian) were Black African in the University Hospitals Birmingham NHS Foundation Trust in 2014, while proportions for all staff were 2.22% (including 0.10% Black Nigerian).

There is robust evidence of racism, discrimination, and lack of equal opportunity for Black Africans in the NHS. Likupe used a qualitative study of participants in NE England to obtain an insight into Black African nurses' experiences in the NHS[172]. She reveals that many internationally recruited nurses have negative experiences in the NHS, including racism,

harassment, bullying, discrimination, and lack of equal opportunities. She reports that racism was perceived as emanating from White colleagues and other overseas nurses, managers, and patients and their relatives. Discrimination was largely concerned with equal opportunities and the daily work of nursing on the hospital wards. Black African nurses felt that their experience and knowledge in nursing was not respected. Managers displayed stereotyping between different groups of overseas nurses, treating Black African nurses less favourably and confirming Black African nurses' suspicion that they were regarded as being of low motivation compared with others. They also labelled these nurses as confrontational when they voiced concerns. Ward managers did not trust Black African nurses' ability to perform certain duties and so applied excessive scrutiny when working with and supervising these nurses.

Racism went hand in hand with discrimination in terms of promotion, professional development, supervision of duty rotas, and the way mistakes were dealt with. Black African nurses described being passed over for promotion and having to prove themselves beyond the usual requirement by getting extra qualifications. Even then they found it difficult to move up the career ladder, indicating a glass ceiling inhibiting upward mobility. Black African nurses also reported that they were often not given information on equal opportunity policies, in addition to not putting these policies in practice. Moreover, professional skills of overseas nurses were constantly questioned. In summary, there was a nursing hierarchy with Black African nurses at the bottom.

2.5.6 Staff groups

The GMC provides statistical information about doctors on the List of Registered Medical Practitioners (LRMP)[173]. In 2015 a total of 266,841 doctors were registered on this list. Amongst the top 20 countries of qualification were South Africa (5,207, 2.0%, 4th in rank), Nigeria (4,245, 1.6%, 5th in rank), and Sudan (1,687, 0.6%, 17th in rank). By ethnic origin 7,102 (2.7%) were Black African, substantially higher than Black Caribbeans (624, 0.2%), and Black Other (571, 0.2%). No breakdown is available by gender.

Nationality is a poor proxy for ethnic group or communities of descent as members of the African workforce in the NHS may have acquired British nationality. Moreover, the numbers from different African countries who have obtained British nationality may be affected by the length of time they have lived in the country. Also, nationality is unknown for 121,784 staff. However, as no data is available by ethnic group below the broad category of Black African, the nationality data does provide a proxy measure of diversity across the main staff groups (doctors, nurses, and support staff). This data shows that in September 2014, while 970,000 British staff comprise 80% of the NHS workforce, 34 African countries also contribute 20,075 staff with African nationality, or 1.7% of the total. The African nationalities contributing the largest proportions are Ghanaian (11.6%), Mauritian (6.7%), Nigerian (25.0%), South African (9.4%), and Zimbabwean (21.5%). Clearly, some of the South African and Zimbabwean nationals may have been of White ethnicity[174].

The largest staff group for African nationals was qualified nursing, midwifery and health visiting staff (8,537 or 42.5%). The largest nationality group was Zimbabweans (2,940), though Nigerians (1,525), Ghanaians (982), Mauritians (658), and South Africans (550) were also important. There were 2,053 doctors (including locums) of African nationalities working in the NHS, with large representation of Nigerians (671), Sudanese (350), and South Africans (324). There were also 5,638 staff (28.1%) with African nationalities in the support to clinical staff group and 2,343 (11.7%) in the NHS infrastructure support group.

2.5.7 Social work staff

The same drawback of concealed heterogeneity that applies to nurses, midwives, and health visiting staff also applies to the staff of Social Services Departments. The majority (86 per cent) of the 130,100 adult social services jobs in 2014 were carried out by White workers[175]. Around 7% of all employees were Black or Black British but no breakdown is available by the census categories (so 'Black Africans' yet again remain invisible in the published data). This proportion varied from 1% in the SW Region to 10% in the West Midlands and 31% in London. While White employees accounted for 86% of the 116,845 job roles and Black and minority ethnic groups 14%, the White group were over-represented in manager/supervisor roles (89%) and under-represented in professional roles (81%). Black and minority ethnic groups were under-represented in manager/supervisor roles (11%) and over-represented in professional roles (19%).

2.5.8 Self-employment

The proportion in self-employment amongst those in employment aged 16 and over was low amongst men in the Black groups: 15% amongst Black Africans (the lowest rate, along with Mixed: White and Black Caribbeans), and 16% amongst Black Caribbeans and Black Other men. By contrast, 20% of White British men were self-employed. Rates of self-employment were substantially lower amongst women in all ethnic groups. Only 7% of Black African women were self-employed, only Bangladeshis and Black Caribbeans (6%) having a lower rate. 9% of White British women were self-employed, though rates were higher, for example, amongst Other White (14%) and Chinese women (15%).

Nevertheless, there is evidence of an emerging entrepreneurship amongst Black Africans with the diaspora playing a key role in Africa's development (remittances accounting for 2% of the continent's gross domestic product in 2010, the second largest source of foreign direct investment)[176].

According to Ojo these transnational Black African entrepreneurial activities are 'conducted by individuals who are rooted in two different social and economic arenas' with such individuals maintaining business relationships with their 'home' country and their area of residence in the diaspora[177]. Such businesses tend to utilise family and personal knowledge about market opportunities in Britain and their countries of origin, this knowledge being used as a resource to import goods and services for these diaspora communities and to create employment opportunities.

Categorising African entrepreneurships is problematic because of their diversity. African businesses tend to follow the residential pattern of African migrants and some are informal[178]. Excluding informal traders Nwanko identifies a range of African entrepreneurship enterprises: professional services (accountancy, legal/solicitors, financial advice, and training/consultancy); food (restaurants/catering, public houses, food retail); general merchandising/international trading; fashion and beauty (hair-dressing, barber saloons; and general services (auto-mechanics, electric/electronics, logistics/freight forwarding and cab offices)[179]. African business enterprises tend to be gendered with women specialising in fashion and beauty whilst men focus on professional and general services. The viability and success of these enterprises are largely unknown, though they rarely get business support. Ojo notes that London is the epicentre of Nigerian entrepreneurship in the UK and that competition contributes to difficulties in securing funding[180]. Some businesses may have been set up as an escape from the ethnic penalty in employment markets.

2.5.9 Hours worked

Overall 16% of men in the general population worked part-time (up to 30 hours a week) at the time of the 2011 census. Part-time working amongst men is higher in ethnic groups that are not White (apart from Gypsies/ Irish Travellers)[181]. Black African men occupied an intermediate position with 26% working part-time and 9% worked for 15 hours or less. Just 12% of Black African men worked full-time for 49 or more hours, only Pakistanis (10%) and Bangladeshis (6%) having lower proportions. 40% of Black African women worked part-time and 12% worked part-time for 15 hours or less. This was a lower proportion than that for White British women (45% and 14% respectively). Substantially higher proportions of Pakistani women (52%) and Bangladeshi women (56%) worked part-time. Low proportions of Black African and Black Caribbean women worked full-time for 49 or more hours.

2.5.10 Young people (aged 16 - 24) in the labour market

The 2011 Census recorded over 6.6 million people young people (aged 16-24) in England and Wales, nearly a quarter (23%) of whom were from an ethnic minority group, a population generally with a younger age profile compared with the White British group. The participation in the labour market of young people (aged 16-24) from minority ethnic groups is dominated by the high proportions who were full-time students. Amongst Black African young people, 73% were full-time students, a proportion only exceeded by the Chinese and Arab groups. Moreover, the Black African proportion was distinctive in the Black group, being substantially higher than for Black Caribbean young people (55%) and the Other Black group (63%). Only 44% of White British young people were students. In consequence a relatively low proportion of young Black Africans were in employment or self-employed (15%), though this proportion will exclude full-time students who were also in work. Similarly, the proportion who were unemployed (7%) was low and similar to the White British proportion[182].

2.5.11 Black African sub-group variations in labour market participation

Only limited information is available on labour market participation by African subgroups. This includes 2011 Census data for economic activity by year of arrival in the UK by country of birth for residents aged 16 and over in England and Wales. However, counts are only reported for the total of African born and persons born in Nigeria, South Africa, and Other (Africa). ONS's own Census Analysis includes economic characteristics[183]. UK-born Nigerians had an employment rate of 58.6%. However, this proportion fell amongst recent arrivals (resident less than 5 years) to 40.4% and those who had been in the country 5-10 years to almost the rate of the UK-born (58.3%). Longer lengths of residence had higher employment rates: 69.2% for those resident 11-30 years and 74.7% for those resident more than 30 years.

Two sources were exploited for the UPTAP project pooled LFS data for 2005-2009 and the Controlled Access Microdata Sample[184, 185]. The latter showed markedly varying employee rates by country of birth. Amongst males, 50.2% of Black Africans were employees and a slightly higher proportion of UK-born Black Africans (51.8%). The Ghana country of birth group (64.0%), Nigeria country of birth group (53.2%), and Zimbabwe country of birth group (51.4%) all had high proportions. However, the employee rates for the Democratic Republic of Congo-born (23.5%) and Somalia-born (20.3%) were much lower. Self-employment rates were highest in the longer established Nigerian-born (14.0%) and Ghana-born (7.5%) groups but <5% in the other country of birth groups. Similar differentials were found amongst women. The Black African employee rate was 46.5% amongst Black Africans but 57.0% in UK-born Black Africans. Again, rates were high for the Nigerian-born (53.4%), Ghana-born (56.2%), and Zimbabwe-born (55.5%) but very low for the Democratic Republic of Congo-born (15.0%) and Somalia-born (6.4%). The self-employment rate was 3.8% amongst the Nigerian born and 2.0% for the Ghana-born but negligible in the other groups.

2.5.12 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 African group is disproportionately disadvantaged on several of these dimensions.

In the 2011 England and Wales Census, Black Africans (as defined by the ethnic group of the Household Reference Person (HRP)) had the lowest rates of owner-occupation across all eighteen ethnic groups, with just 24% owning their houses. Rates were also low amongst Mixed White and Black Africans (28%), and the Black Other category (28%), but higher for Black Caribbeans (45%). These proportions compare with 69% for Indians and 68% for White British. Significant proportions of Black Africans lived in private rented and social rented housing. Just over a third (34%) lived in private rented accommodation, substantially lower than the White Other (51%) and Arab (49%) ethnic groups but higher than the White British (15%) and Black Caribbean (15%) groups. However, Black Africans (42%) had the one of the highest proportions in social rented housing, only exceeded by Mixed White and Black Caribbeans (43%) and Black Other (48%). The low proportion of the Black African group in home ownership probably reflects their disadvantage in the labour market and consequent difficulties in securing a mortgage[186].

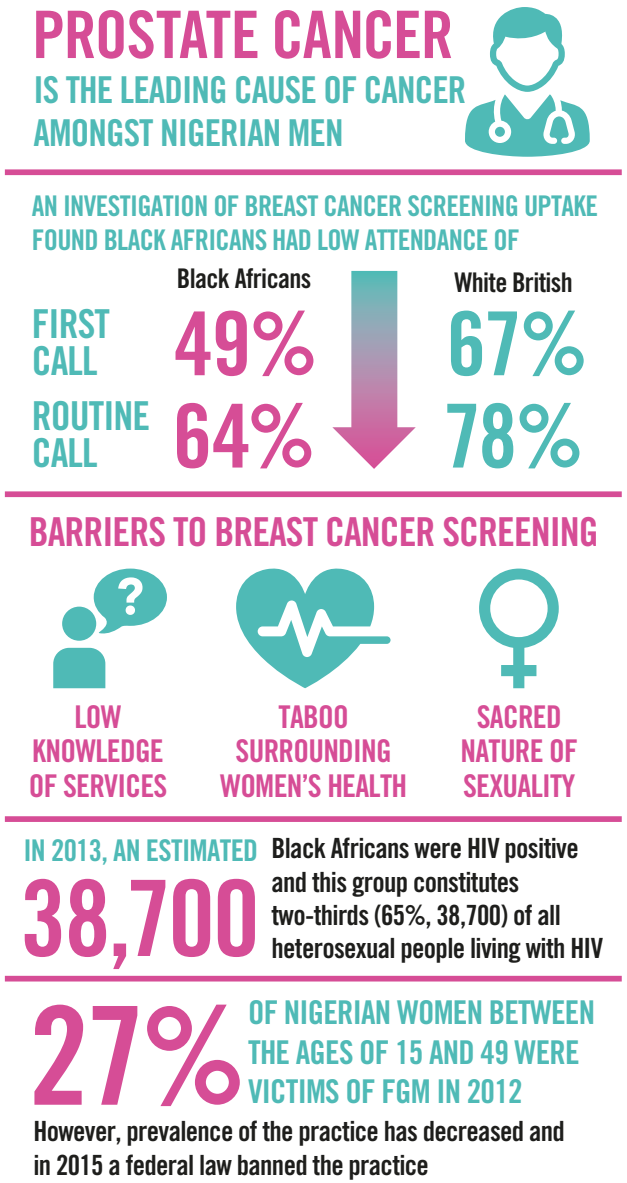
Across the three censuses (1991, 2001, and 2011), the percentage of Black African HRPs who owned their own home declined from 27.9% (1991) to 24.0% (2011), declines being common for all ethnic groups (African, Bangladeshi, Caribbean, Chinese, Indian Pakistani, and White) between 1991 and 2011. In contrast Black Africans substantially increased their occupation of privately rented accommodation from 19.9% (1991) to 34.0% (2011), increases characterising all ethnic groups. Black African HRPs saw diminished proportions in social rented housing between 1991 and 2011, in common with all other ethnic groups, the 52.2% in 1991 falling to 50.7% in 2001 and 42.0% in 2011. However, the decline was steepest for Black Africans.

With respect to dwelling type, across England and Wales in 2011 84.1% of the population lived in a whole house or bungalow. In the case of Black Africans this proportion fell to 52.6% of Black African HRPs, the lowest of any ethnic group (including Gypsies or Irish Travellers, 60.7%). Proportions were also low amongst Black Other HRPs (54.7%) and Arabs (55.6%). Terraced houses comprised 30.8% of all occupied whole houses or bungalows across England and Wales but 43.5% in the case of Black African HRPs, though proportions for Black Caribbeans (49.7%) and Bangladeshis (54.5%) were substantially higher. In the population as a whole only 0.34% of all dwellings were shared in 2011. The proportion was highest for Black African household reference persons (1.65%), probably reflecting their concentration in the rented sector. Proportions were also high (over 1%) for White Other (1.33%), Mixed White and Black African (1.35%), Other Mixed (1.14%), Chinese (1.42%), Other Black (1.40%), Arab (1.34%), and Any Other ethnic group (1.21%). While across England and Wales in 2011 very few dwelling types (2.67%) lacked central heating, the proportion was lower amongst Black African (2.48%), Black Caribbean (2.03%), and Black Other (2.43%) HRPs. The low proportion in the Black African group may be partially explained by the high concentration (42%) of Black Africans in social rented housing.

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 Africans had one of the highest levels of overcrowding (22%) along with Pakistanis, only Bangladeshis having a higher proportion (30%)[187]. Only 31% of Black Africans under-occupied their accommodation, that is, at least one spare bedroom, only Bangladeshis having a lower proportion (30%). By contrast, more than two-thirds of the White British and White Irish ethnic groups under-occupied their accommodation. Moreover, four times as many White British (36%) as Black African (9%) and Bangladeshi (10%) groups lived in accommodation with two or more spare bedrooms. Further, Black Africans had the highest proportion with required bedrooms (47%).

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. 35% of Black African accommodation (and the same proportion for Bangladeshis) was overcrowded, the highest proportion across all ethnic groups[188]. These investigators suggest that '…the switch to a bedroom-based measure of overcrowding hides the experience of these ethnic groups (Black African, Arab, and Chinese) having fewer than the required number of rooms for daily living activities other than sleeping' (p. 154). Overcrowding amongst Black Africans was particularly concentrated in London, with 1 in 5 households in inner and North London being overcrowded. Finney and Harries 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 but particularly so for Black Africans and Bangladeshis, resulting in a reduction in ethnic inequalities on this measure[189].

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[190]. The English Housing Survey (April 2016 to March 2019: 3 years combined) showed that in England Black Africans (16%) had the third highest level of overcrowding across the 18 Census ethnic categories, after Bangladeshis (24%) and Pakistanis (18%). These proportions compare with 2% in the White British group (Ethnicity Facts and Figures Service, 2021). The English Housing Survey for these years provides information on households with damp. Again, Black African households (9%) were disproportionately affected, though not as badly as Mixed White and Black Caribbean (13%), Mixed White and Black African (11%), and Bangladeshi and Black Other households (both 10%). These figures compare with 3% for the White British group[191].



2.6 Protect and Detect.

Protect and Detect Key Findings:

- Prostate cancer is the leading cause of cancer amongst Nigerian men.
- An investigation of breast cancer screening uptake found Black Africans had low attendance of first call (49%) and routine call (64%) uptake of breast cancer screening.
- In 2013, an estimated 38,700 Black Africans were HIV positive and this group constitutes two-thirds (65%, 38,700) of all heterosexual people living with HIV.
- 27% of Nigerian women between the ages of 15 and 49 were victims of FGM in 2012. However, prevalence of the practice has decreased and in 2015 a federal law banned the practice.

The topics in this section include cancer screening, sexual health infections, domestic violence and vaccination programmes. Most of the data in these sections is for the Black African group rather than more granular categories.

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[192].

Breast cancer screening

A study in Scotland found non-attendance at first breast-screening invitation (2002–2008) was higher for Black Africans (162.2, 95% CI 130.8–201.1) (and also for Pakistanis, Indians, and Other South Asians) compared with the White Scottish group (=100)[193]. 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 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%)[194]. 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 Africans (0.49 (0.47 to 0.51)) had one of the poorest levels of attendance. 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 (Public Health England 2016), a factor which can affect treatment success and mortality.

Amongst factors accounting for the high non-attendance of Black African women, Onyigbuo suggests that the low knowledge of breast cancer-screening services in their countries of origin may contribute[195, 196, 197, 198, 199]. Also, socio-cultural issues surrounding women's health and taboos, secrecy, or the sacred nature of sexuality in Africa may be factors[200, 201, 202].

Cervical cancer screening

Minority ethnicity has also been associated with lower attendance for cervical screening, even when socio-economic position is adjusted for[203], although results were for White British and Other; Webb *et al.* but only for 'South Asian' and 'Other'[204]. A survey of Black women in London which explored their knowledge of cervical cancer and attendance at cervical cancer screening found that being younger, single, African (compared to Caribbean) and attending religious services were more frequently associated with being overdue for screening[205]. 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.*, 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[206].

Again, Onyigbuo suggests the contribution of poor knowledge of cervical cancer screening in migrant women's home countries before migration, also adding: 'the cultural practices of female genital mutilation (FGM) common in Nigeria and other African nations has the potential for influencing women's attitudes towards female-related health conditions such as cervical cancer screening in the UK as in other countries'[207, 208, 209, 210]. Another study assessed the knowledge of cervical cancer in women and current screening practices among female students at the University of Ibadan, Nigeria[211]. 350 respondents were selected using a multi-stage sampling technique. Semi-structured questionnaires revealed that

nearly two-thirds (63%) of respondents had heard about cervical cancer. Knowledge of predisposing factors for the disease was high for early exposure to sex (82%) and sex with multiple partners (70.6%). However, only 15.7% knew that abnormal menstrual bleeding was symptomatic of cervical cancer; 14.9% perceived themselves to be susceptible, while 2.6% had ever screened for the disease. Thus, while awareness of cervical cancer and its predisposing factors was high, the perception of self-vulnerability and utilization of screening services were extremely low. The investigators recommended that intense and integrated educational programs were urgently needed for this group.

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.* 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[212]. 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.

Abdominal aortic aneurysm (AAA) screening

The review by Davies *et al.* found no studies which looked at how ethnicity influenced screening attendance[213]. 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[214]. Jacomelli *et al.*'s 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[215]. Ahmad *et al.* also found that Afro-Caribbean men were disproportionately less likely to attend for screening[216].

Prostate cancer PSA testing

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. However, the NHS Prostate Cancer Risk Management Programme (PCRMP) provides GPs and primary care professionals with information to counsel asymptomatic men aged 50 and over who ask about prostate specific antigen (PSA) testing for prostate cancer so they can make an informed choice about being tested or not.

Oladepo *et al.* assessed the knowledge, awareness, and testing practices among older men regarding prostate cancer - the leading cause of cancer among Nigerian men - in Oyo State, Nigeria[217]. 561 adult males were selected using a multi-stage sampling technique and interviewed using a semi-structured questionnaire. Amongst respondents (median age 60.0 years), prostate cancer awareness was high [449 (80.0%)]. The overall mean knowledge of prostate cancer causation, treatment, and prevention was 5.8 (±3.0) out of a maximum of 16. However, only 109 (19.4%) perceived themselves at risk of developing prostate cancer and only 4.5% had ever been screened. While knowledge and risk perception of prostate cancer were low, most respondents (81.5%) were willing to be tested for the disease. The investigators recommend that community-based prostate cancer educational interventions and provision of screening centres are needed for this group.

2.6.2 Attendance for NHS Health Checks

Although not defined as a screening programme, the NHS Health Check, is a health check-up for adults in England aged 40 to 74, designed to spot risk factors for 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[218]. 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[219]. 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.

2.6.3 Sexual health infections and other infectious diseases

HIV / AIDS

The African continent has been the epicentre of the global HIV epidemic and numbers of affected people are set to increase due partly to improved HIV medicines which lead to better health outcomes for people living with the virus. The heterosexual nature of the Black African epidemic in sub-Saharan Africa is reflected in the heavy burden of heterosexually contracted HIV amongst Black Africans in the UK. HIV/AIDS has dominated the discourse on Black African health over the last two or three decades. However, the epidemiology and burden of the disease has changed substantially during this period, as new therapeutic regimes have changed the disease from an acute to a chronic or long-term condition.

The HIV and AIDS Reporting Section (HARS) data collection provides comprehensive data on: HIV diagnosed individuals receiving HIV care; first HIV and AIDS diagnoses; deaths among HIV positive individuals; and CD4 surveillance, available by regions and strategic Health Authority, specific prevention groups, and other demographic factors.

Reported numbers of HIV-diagnosed persons seen for HIV care in the UK by ethnicity and route of exposure in 2013 shows that the highest number of HIV-diagnosed people seen for care in 2013 was the White group (42,966 persons) but Black Africans were second with 26,617 persons. Clearly Black Africans were substantially over-represented, given that they comprise only 1.8% of the UK population. Black-Caribbeans, Black Other/Black unspecified, South Asians, and Other Asians (mainly E and SE Asians) had much lower numbers. In addition, route of exposure was very different in the White group compared with Black Africans. In the White group, sex between men accounted for 72.0% of all persons seen for care, with sex between men and women comprising just 21.0%. Amongst Black Africans sex between men and women accounted for 90.8% of all persons seen for care and sex between men just 2.1%.

There are important geographic differences across England in the extent to which Black Africans contribute to numbers of HIV cases. Although data is not reported for Birmingham specifically, amongst upper tier local authorities in London in 2013 with a prevalence of diagnosed HIV infection of 2 or more per 1000 population (aged 15-59 years), the proportion of Black Africans among people living with diagnosed HIV infection was highest in Bexley (64%), Enfield (61%), Newham (58%), Greenwich (54%) and

Croydon (54%). Outside London the proportions were highest in Thurrock (68%), Luton (67%), Coventry (67%), Southend-on-Sea (67%), and Leicester (65%)[220].

In 2013, an estimated 38,700 Black Africans were HIV positive and this group constitutes two-thirds (65%, 38,700) of all heterosexual people living with HIV[221]. The HIV prevalence rate among Black African heterosexuals is 56 per 1,000 population aged 15-59 years (41 per 1,000 men and 71 per 1,000 women). This is a rate 30 times higher for Black African men and women compared to the general population in England. Almost two in five (38%) Black-African men and 1 in 3 (31%) Black-African women living with HIV remained unaware of their infection. The lower rate of undiagnosed infection among heterosexual women is largely due to the effectiveness of the UK antenatal screening programme. Rates of undiagnosed infection among heterosexual Black-Africans were higher outside London, estimated at 49% (4,400), the comparative proportions inside London being estimated to be 13% (500). Similar patterns were observed among women outside London, where 41% (6,700) of HIV positive Black-African women were unaware of their infection, and in London where 10% (800) were unaware.

Other characteristics of the disease that disproportionately affect Black Africans include late diagnoses. The proportion of adults diagnosed with a CD4 count <350 cells/mm3 were particularly high among Black African (66%) men and women (57%), compared with 61% and 42%, respectively, in the White group. Further, while the annual incidence rates of HIV and tuberculosis co-infection has been declining in recent years, elevated rates persist amongst people of Black African ethnicity (7.7 per 1000).

In Black African communities high levels of HIV testing have been reported. 46% and 44% of Black African men and women, respectively, reported in 2010 having had an HIV test in the last five years. A community survey of Black-African populations has observed self-reported protective behaviours of HIV testing in the last year (39%) and regular condom use which may, however, be too low to reduce HIV transmission in this population[222]. HIV screening in STI services is effective. For example, of those who did not have an HIV test at their first STI clinic attendance in 2011, but who had a test at a subsequent attendance at that same clinic, Black African heterosexual men and women showed the diagnosis rate at re-attendance was around five per 1,000 (7/1,290), indicating the importance for Black-African heterosexual men and women of obtaining very high HIV test uptake rates at STI clinics. However, less than 1 in 5 of the Black African population attended an STI clinic in the previous five years, underlying the importance of improving access to HIV testing in other settings, including the use of national HIV self-sampling services.

The number of Black African heterosexuals tested for HIV at specialist health services in England increased by 3% from 43,490 in 2015 to 44,907 in 2019[223]. HIV test coverage was higher among Black African heterosexuals than among non-Black African heterosexuals (73% vs. 63%). Among Black African heterosexuals, HIV test positivity among men continued to fall over the period to 0.3% but remained at 0.5% among women. This testing identified a total of 183 new HIV diagnoses among Black African heterosexuals. Black African heterosexuals who were born in a country with a high diagnosed HIV prevalence had a higher HIV test positivity than those born elsewhere (0.7% vs 0.1%), and accounted for most (88%, 154/174) new diagnoses among Black African heterosexuals.

20% of Black African heterosexual women and 9% of Black African heterosexual men attending sexual health clinics in England in 2019 declined a test, lower than for all heterosexual women (25%) and all heterosexual men (13%). Missed opportunities for testing were significant as, in addition to the high rate of declined tests, 15% of Black African heterosexual women were not offered an HIV test. Thus, over a third of Black African heterosexual women attendees were not being tested at

specialist SHS. Compared to people testing through community services, those testing through the national HIV self-sampling scheme were less likely to be Black African (7% vs. 11%). Public Health England recommends that, as many Black African heterosexual women attendees at sexual health clinics are not tested, health promotion services should aim to engage Black Africans who may never have been tested for HIV, while primary and secondary healthcare services should routinely offer HIV tests according to NICE guidance.

Mortality from HIV/AIDS in England and Wales is now low and primarily affects only two ethnic groups: Black Africans and the White group. In 2017-19 there were 63 deaths in Black Africans, 21 in Black Caribbeans, and 175 in the White group. The age standardised mortality rate for Black African males aged 10 years and above was 2.4 per 100,000 (CI 1.3 to 4.0), higher than for the White group (ASMR 0.2, 0.2 to 0.3). Amongst Black African females the ASMR was 4.0 (2.4 to 6.0) (numbers were too small to calculate an ASMR for White females). These ASMRs for Black Africans had fallen slightly since 2012-14 (2.9 and 4.8, respectively).

Despite improvements in the diagnosis and care of Black Africans with HIV, there remain a number of issues that continue to contribute to inequalities, including the high prevalence of co-morbidities, mental health issues, and experiences with stigma and discrimination. Amongst structural factors, challenges experienced by Black Africans at the social level, notably stigma, are amongst the most important[224]. They continue to impact on disclosure patterns and on everyday life experiences[225].

In the UK, children living with HIV have always constituted a small but significant group of people affected by HIV. The UK-based National Study of HIV in Pregnancy and Childhood (NSHPC) has, since 1989, collected data on children presenting with HIV infection and infants born to HIV-infected women in the UK. The number of reported pregnancies in women with diagnosed HIV in the UK increased from 80 in 1990 to over 1400 in 2010; the majority were among women born in sub-Saharan Africa[226]. Most children reported to the NSHPC are also reported to the 17 UK centres that participate in the Paediatric European Network for Treatment of AIDS (PENTA) trial. By October 2002, 627 children were alive and in follow up at PENTA trials and most of the children were resident in London and were of Black African parent heritage. A high uptake of HIV testing in pregnancy has reduced the numbers of babies being born with HIV, it being estimated that only 2% of children born to HIV positive mothers in the UK between 2005 and 2011 being HIV positive. However, the largest number of mother to child transmission cases was in the Black African group and these accounted for over three-quarters (76%) of all such cases.

Sexually transmitted infections

One of the major drawbacks in establishing the incidence of sexually transmitted infections in the Black African population is that data is reported by Public Health England for an aggregate 'Black' group, while it is known that rates vary across the different Black groups. The highest rates of STI diagnoses (genital warts, gonorrhoea, genital herpes, and syphilis) are 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[227]. 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.

Risk behaviours and STI epidemiology vary markedly between Black African and Caribbean ethnic groups[228, 229]. 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[230]. 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[231]. 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 syphilis show that between April 2001 and September 2003 almost half of heterosexual diagnoses of syphilis were attributed to Black or Black-British ethnic groups.

2.6.4 Tuberculosis

Nigeria is struggling with increasing incidence of tuberculosis cases and suboptimal coverage of diagnostic services. Tuberculosis incidence rose in Nigeria from 418,000 cases in 2017 to 429,000 cases in 2018, and deaths also rose from 155,000 to 157,000[232]. TB accounts for more than 10% of all deaths in Nigeria. This data is important when considering TB cases by country of birth in the UK.

Tuberculosis case reports and rates by place of birth and ethnic group for the UK are published by Public Health England[233]. 2013 data shows that for the UK-born population in the United Kingdom Black Africans (with 98 cases) had a rate of 31 per 100,000, higher than Black Caribbeans (92 cases) with a rate of 23 cases per 100,000 but substantially lower than the Black Other group (26 cases) with a rate of 61 per 100,000. Only Pakistanis had a higher rate, of 38 cases per 100,000. However, if the burden of disease is measured by number of case reports, the greatest burden was found in the White group (1,345 cases), followed by Pakistanis (223 cases) and Indians (162 cases).

However, cases and rates have traditionally been higher in the non-UK born population. Non-UK born Black Africans have a rate of 170 per 100,000 (based on 1,020 cases), substantially higher than Black Caribbeans (29 per 100,000, 63 cases) and Black Other (127 per 100,000, 34 cases). The highest rates were found in non-UK born South Asians, with rates of 286 per 100,000 for Pakistanis and 220 per 100,000 for Indians. These two countries also had the highest burdens (as defined by case reports), with 1,765 in the case of Indians and 1,117 for Pakistanis.

Country of birth data shows important variations across African countries in number of cases and percentage of cases and the median time since entry to the UK and inter-quartile range[234, 235]. In 2013 Somalia (292 cases) had 5.4% of non-UK born cases in the United Kingdom and a median time

since entry of 9 years (4-13). Nigeria had 164 cases, 3.0% of all cases, and a median time since entry of 7 years (3-11). Zimbabwe had 105 cases, 1.9% of all cases, and a median time since entry of 11 years (7-12). Kenya (a country of birth group that includes both Black Africans and East African Asians) accounted for 84 cases, 1.6% of all cases, and a median time since entry of 22 years (8-37). Finally, Eritrea had 62 cases, 1.1% of all cases, and a median time since entry of 4 years (2-7). The numbers of reported cases for people born in Zimbabwe and Somalia have declined due to change in migration patterns and policies.

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. Migrants from Somalia, Nigeria, Sudan and Sierra Leone were amongst the countries of birth for people who had developed drug resistance TB. TB affects children and most cases of TB reported in the 0-14 age group were in UK-born children (69%), with the highest proportion amongst the Black African (23%) and Indian groups.

A recent qualitative research study found that Black African men with a previous diagnosis of tuberculosis suffer a significant burden of stigma[236]. Men were unable to recognise TB symptoms and subsequently made late clinical presentation when they were also diagnosed with HIV. A few were diagnosed when in immigration detention centres. The experience of late diagnosis informed their understanding of the word 'stigma'. The link between HIV and TB compounded experiences of stigma which led to depression and compromised HIV confidentiality. The investigators recommend that multidisciplinary teams supporting ongoing TB education programmes should include African men's organisations, due to the close supportive links such organisations have with African men.

2.6.5 Female genital mutilation (FGM)

Accurate data has been available on FGM since the setting up of the FGM Enhanced Dataset in 2015, a repository for individual level data collected by healthcare providers in England to yield a picture of the prevalence of FGM. In the latest quarterly data (July 2021 to September 2021), there were 1,530 individual women and girls who had an attendance where FGM was identified, accounting for 2,550 attendances reported at NHS trusts and GP practices where FGM was identified[237]. Since the collection began, NHS trusts and GP practices have reported information about 28,765 individual women and girls, there being a total of 68,480 attendances for these individuals where FGM was identified. Only 65% of individual women and girls have a known country of birth recorded. For the current quarter, of the 995 individuals with a known country of birth, 500 were born in Eastern Africa, 135 Northern Africa, 190 Western Africa, 10 Rest of Africa, 60 United Kingdom, and 100 Asia and Rest of the World. With respect to the country where FGM was undertaken, only 54% of individual women and girls had a known country where FGM was undertaken recorded. This was most frequently Eastern Africa (405), Western Africa (165), and Northern Africa (120). Nationally, 27% of Nigerian women between the ages of 15 and 49 were victims of FGM in 2012. However, the prevalence of the practice has decreased and in 2015 a federal law banned the practice. The current national prevalence of FGM among women of reproductive age stands at 20% and at 19% among daughters less than 14 years of age[238].

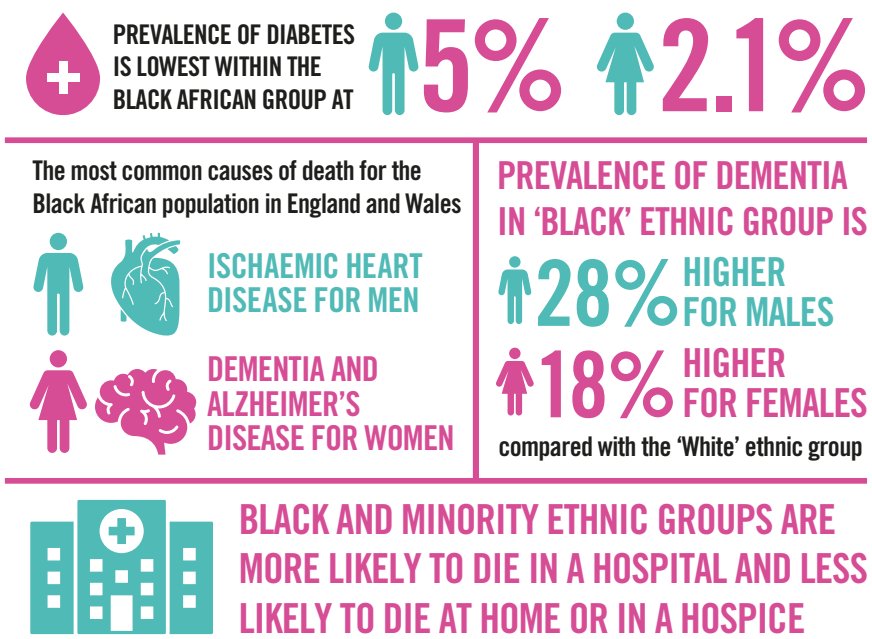
NHS organisations have statutory responsibilities to safeguard women and girls against FGM. NHS guidance advises commissioners on how to approach these responsibilities[239]. The top ten recommendations for commissioning quality services include: Each organisation should have a

nominated FGM lead and a suitably trained workforce, and all maternity and obstetric services have a FGM clinical lead; commissioners must understand local population needs in relation to FGM; all maternity services should support and offer a high quality service to women with FGM, meeting their individual needs; commissioners should review existing services to which GPs are likely to refer for conditions relating to FGM; commissioners should consider services to support non-pregnant women and girls wanting support and/or in relation to their FGM; commissioners should effectively safeguard girls and women and risk of FGM; they should include patient and public voice in service design and review; services must comply with information requirements; they should work in partnership with the police and social care; and work with health advocates, introduce ongoing monitoring and evaluation arrangements.

2.6.6 Adult vaccination programmes

For adult vaccination programmes QResearch 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[240]. 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 African group was 0.68 (0.65-0.70) (that is, 32% less likely to have been vaccinated than the White population); this was better than for Black Caribbeans (0.49, 0.47-0.50). For pneumococcal vaccination, the OR for Black Africans was 0.88 (0.85-0.91), again better than Black Caribbeans (0.64, 0.62-0.66). For shingles vaccination (age >=70), the OR for Black Africans was 0.71 (0.68-0.74), similar to that for Black Caribbeans (0.72, 0.69-0.75).



2.7 Ageing Well and Dying Well.

Ageing Well and Dying Well Key Findings:

- The most common causes of death for the Black African population in England and Wales is ischaemic heart disease for men and dementia and Alzheimer's disease for women.
- Prevalence of diabetes is lowest within the Black African group at 2.1% for women and 5% for men.
- Prevalence of dementia in 'Black' ethnic group is 28% higher for males and 18% higher for females compared with the 'White' ethnic group.
- Black and minority ethnic groups are more likely to die in a hospital and less likely to die at home or in a hospice.

The topics included in this include: diabetes, cardiovascular disease, cancer, chronic obstructive pulmonary disease, dementia, end of life care, and palliative care. Again, information is limited on the Nigerian population, so Black African data is presented where more detailed information is unavailable.

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 African ethnic group by sex, age (those 10 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: ischaemic heart diseases (ASMR 103.2, 95% CI 88.2-118.2); dementia and

Alzheimer's disease (ASMR 72.0, 57.8-86.1); malignant neoplasm of the prostate (ASMR 60.6, 48.5-72.7), cerebrovascular diseases (ASMR 58.7, 47.9-69.6); influenza and pneumonia (ASMR 31.1, 22.8-41.1). Amongst females the five most common causes of death were: dementia and Alzheimer's disease (ASMR 59.8, 47.6-72.0); ischaemic heart diseases (ASMR 34.5, 27.1-42.0); cerebrovascular diseases (ASMR 34.4, 26.9-41.8); malignant neoplasms of the breast (ASMR 29.3, 23.6-34.9); and influenza and pneumonia (ASMR 25.8, 18.6-34.5). Amongst those aged 65 and over, the top five diagnoses were the same. Amongst females the top 3 diagnoses were the same but followed by influenza and pneumonia and diabetes.

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[241]. 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 and 2) was amongst the lowest in the Black African group. The rate in men was 5.0%, only the Chinese (3.8%) and Irish (3.6%) having lower rates. Amongst women, the rate was 2.1%, the lowest of all groups. Type 2 diabetes accounted for the majority of cases. Black African, Black Caribbean, Indian, Pakistani and Bangladeshi men had higher prevalence of type 2 diabetes aged 35-54 and (except Black African men) aged 55+ than the general population. Among women, type 2 diabetes was more common in participants from Indian, Pakistani and Bangladeshi groups (aged 35+) and Black Caribbean women (aged 55+)[242].

ONS mortality data provides information on age-standardised mortality rates by leading cause of death for 2017-19[243]. Amongst males aged 65 years and older 'Black Africans' had the 6th lowest mortality from diabetes out of 9 ethnic groups (ASMR 94.8, 64.0-133.9), in a range of 214.3 (Indians) to 54.0 (White). Amongst Black African females the ASMR was 84.1 (58.1-116.9), in a range of 121.8 (Bangladeshi) to 39.0 (White). 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 Black groups than in the White population.

A recent study 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[244]. Nazroo *et al.*'s 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[245].

2.7.3 Cardiovascular Disease

Cardiovascular disease (CVD) is the collective term for diseases affecting the circulatory system, i.e., heart, arteries, blood vessels. The main forms of CVD are heart disease and stroke. It is a leading cause of death in minority ethnic groups and a significant contributor to inequalities in life expectancy.

With respect to any CVD condition, in 2004 women from the general population had the highest prevalence (13.0%) and Chinese women had the lowest (5.3%), Black African women being not far behind (5.5%). Irish

men had the highest prevalence of any CVD (14.5%) while Black African men (2.3%) had the lowest. With respect to ischaemic heart disease (angina or heart attack), among men aged 55 and over, Pakistani males had the highest prevalence (35.1%) and Chinese (7.2%) and Black African (5.2%) males had the lowest. For women aged 55 and over, the prevalence was highest in the Indian group (14.7%) and lowest in the Black Caribbean (6.3%) and Irish (6.6%) groups (figures being too small to report a rate for Black African women)[246].

The prevalence of angina in 2004 was lowest in Black African (0.7% and 0.5%, respectively, amongst men and women) and Chinese informants and highest in Pakistani men (6.9%) and Indian men and women (4.9% and 3.2%, respectively). People from minority ethnic groups reported lower rates compared with the general population of heart murmur, abnormal heart rhythm (except for Irish women) and 'other' heart trouble (except for Black Caribbean women). 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%) as did Bangladeshi (11.9%) and Pakistani (10.1%) women. This compared with just 1.5% of Black African women (numbers were too small to report a male rate).

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) and obesity. Lower cholesterol levels among people of African Caribbean compared with European origins may protect them against heart disease.

Black groups have lower than expected rates of disease-adjusted 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 per 100,000 from cerebrovascular diseases amongst the population aged 65 years and over, 2017-19, was 230.5 (CI 183.8-284.7) in Black African males, significantly lower than for White males (ASMR 260.8, CI 258.0-263.7). For Black African females the ASMR was 137.4 (95% CI 105.8-175.0), significantly lower than for 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.*, finding particularly elevated mortality for cerebrovascular disease for men born in West Africa (SMR 234 (197-278)) and also significantly elevated for women (SMR 131 (102-166))[247].

For ischaemic heart diseases (also called coronary heart disease), the ASMR for Black African males was 428.6 (CI 360.6-496.6), significantly lower than for White males (607.7, CI 603.4-612.0). For Black African females the ASMR was 141.3 (CI 109.8-178.8), significantly lower than that for White females (290.7, CI 288.2-293.2). The data reported by Wild *et al.*, are more consistent with those for 2017-19: Ischaemic heart disease SMRs were relatively low for the West Africa country of birth group: 61 (51-73) for men and 81 (62-103) for women[248].

2.7.4 Cancers

Amongst women Shirley *et al.* compared 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[249]. 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 Africans was 62.8 and incident rate ratio (IRR) 0.89 (0.81 to 0.96) (for all ages). For ovary cancer, the ASR was 8.9, with an IRR of 0.74 (0.59 to 0.94). The ASR

for cervical cancer was 10.1 and the reported IRR 0.82 (0.66 to 1.01). For endometrial cancer the ASR was 6.2 and the IRR 1.15 (0.92 to 1.45). Thus, relative to the White population, Black Africans 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 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 139.3 (95% CI, 110 to 168) for the Black African group, a 2.5-fold difference[250].

With respect to other cancers, Black African men have incidence rates for lung cancer around half that of White men (IRR 0.4), based on Thames Cancer Registry data for 1998-2003. Compared with White women, women from the other ethnic groups studied have much lower lung cancer incidence rates (an IRR of 0.3 in the case of Black African women).

The above findings are broadly consistent with mortality data. Wild, Fischbacher et al (2006) report mortality from all cancers and lung, colorectal, breast and prostate cancer by country of birth in England and Wales for the period 2001-2003[251]. The sub-Saharan population is only adequately captured in the West Africa country of birth group as a large proportion of people born in East Africa who live in England and Wales are of South Asian ethnicity. For all cancers combined cancer mortality was higher for men born in West Africa (SMR 115) but not significantly so in the case of women (SMR 109). Lung cancer mortality was low in West African men (SMR 68, 95% CI 50 to 89) and women (40, 23 to 65). Breast cancer mortality was high among women born in West Africa (SMR 132, 95% CI 105 to 163). The investigators report that the high breast cancer mortality among women born in West Africa was unexpected and a French study that adjusted for confounding factors did not find an excess of breast cancer mortality in migrants from sub-Saharan Africa compared to French natives[252]. Mortality from prostate cancer was around two or three times higher for men born in West Africa (SMR 271, 95% CI 207 to 349) (and the West Indies). The SMR for colorectal cancer amongst the West African-born was not significantly different from the national average for men (82, 53 to 120) and women (125, 80 to 186).

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). Tables 2 and 3 shows data for 5 malignant neoplasms by gender for Black Africans and the White group. These are the same for neoplasms as reported by Wild, Fischbacher *et al.* with the addition of liver and intrahepatic bile ducts[253].

Table 2: Malignant neoplasms: Age-standardised mortality rates (ASMRs) per 100,000, by gender (Female) and age (65 and over), 2017-19

Ethnicity	Colon, sigmoid, rectum, and anus	Liver and intrahepatic bile ducts	Trachea, bronchus and lung	Breast	Total Malignant Neoplasms
Black African	36.0	57.7	36.1	73.8	1933.9
White	91.3	26.4	191.9	112.8	3673.1

Source: ONS. Mortality from leading causes of death by ethnic group (2021). Mortality from leading causes of death by ethnic group, England and Wales: 2012 to 2019]

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

Ethnicity	Colon, sigmoid, rectum, and anus	Liver and intrahepatic bile ducts	Trachea, bronchus and lung	Prostate	Total Malignant Neoplasms
Black African	92.6	53.1	110.6	267.6	3100.7
White	139.3	48.1	272.8	229.5	4778.3

Source: ONS. Mortality from leading causes of death by ethnic group (2021). Mortality from leading causes of death by ethnic group, England and Wales: 2012 to 2019[254]

This most recent data shows that the ASMR for all neoplasms was significantly lower in Black African men and women than those in the White group. It also confirms that, compared with the White group, Black African 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), higher ASMRs for malignant neoplasm of the prostate (but not significantly so) amongst Black African men, and significantly lower ASMRs for malignant neoplasm of breast amongst Black African women.

2.7.5 Chronic Obstructive Pulmonary Disease

Gilkes *et al.* 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 Africans was 0.32 (0.25-0.41), between Black Caribbeans (0.45, 0.38-0.52) and Black Other (0.26, 0.18-0.39)[255].

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.*, used 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')[256]. 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

With respect to risks for haemoglobinopathies prior to screening, the chance that the couple are both carriers and require risk assessment is greatest when the family (ethnic) origins of both partners (mother and baby's father) are both Black African (1 in 14) and risks remain high (risks higher than 1 in 100) when one parent is Black African[257, 258]. 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) is used as a decision-making tool primarily to identify partners of high risk status in 'low prevalence' areas (a foetal 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

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, My Pham *et al.* 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[259]. 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.

ONS mortality data provides information on age-standardised mortality rates by leading cause of death for England and Wales for 2017-19[260]. Amongst males aged 65 years and older, the age-standardised mortality rate (ASMR) per 100,000 for Black Africans for dementia and Alzheimer's disease as a leading cause of death was 327.4 (262.6 to 392.2). Out of 10 ethnic groups, only two had lower rates, the range being 558.0 (Black Caribbeans) to 303.1 (Pakistanis). For Black African females, the ASMR was 271.5 (215.5 to 327.6). This was the lowest of the ten ethnic groups, White females having the highest rates (647.2).

Truswell's 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[261]. 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 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[262, 263]. 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[264].

Some similar findings were reported by Koffman *et al.*[265]. Using mortality data for 93,375 cancer deaths of those aged ≥65 years in London from 2001–2010, Koffman *et al.* 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[266]. 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[267].

The findings of the Care Quality Commission's review 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[268]. 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 BME 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.

LIFE EXPECTANCY FOR BLACK AFRICAN FEMALES WAS

88.9 YEARS

THE HIGHEST ACROSS TEN ETHNIC GROUPS

For Black African males, life expectancy was

83.8 YEARS

LIMITATIONS TO DATA

NHS RACE AND HEALTH OBSERVATORY IDENTIFIED A NUMBER OF ISSUES WHICH MAY HAVE LED TO AN OVERESTIMATE OF LIFE EXPECTANCY FOR ETHNIC MINORITY PEOPLE COMPARED TO WHITE PEOPLE

2.8 Closing the Gaps.

Closing the Gaps Key Findings:

- Life expectancy for Black African females was 88.9 years, the highest across ten ethnic groups. For Black African males, life expectancy was 83.8 years.

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. 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 (COVID19) pandemic period of 2011-2014[269].

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, while the Black African group had statistically significant higher life expectancy than most groups. Life expectancy for Black African females was 88.9 years, the highest across ten ethnic groups, and longer than the White group (83.1 years), an ethnic group gap of 5.8 years. For Black African males, life expectancy was 83.8 years (the third longest after Asian Other, 84.5 years, and Other, 84.0 years), and substantially longer than the lowest, White (79.7 years). Black African males and females had statistically significant higher life expectancy than Black Caribbean males and females. However, the sex gap was second largest in the Black African group (5.1 years), after the Bangladeshi group (6.2 years), and with the White group at 3.4 years. The gap in life expectancy between ethnic groups was larger for females than males.

The investigators suggest that potential reasons for the higher life expectancy found in the Black African and Asian Other ethnic groups include the fact that they contain a higher proportion of more recent migrants than other ethnic groups 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: 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[270, 271, 272, 273].

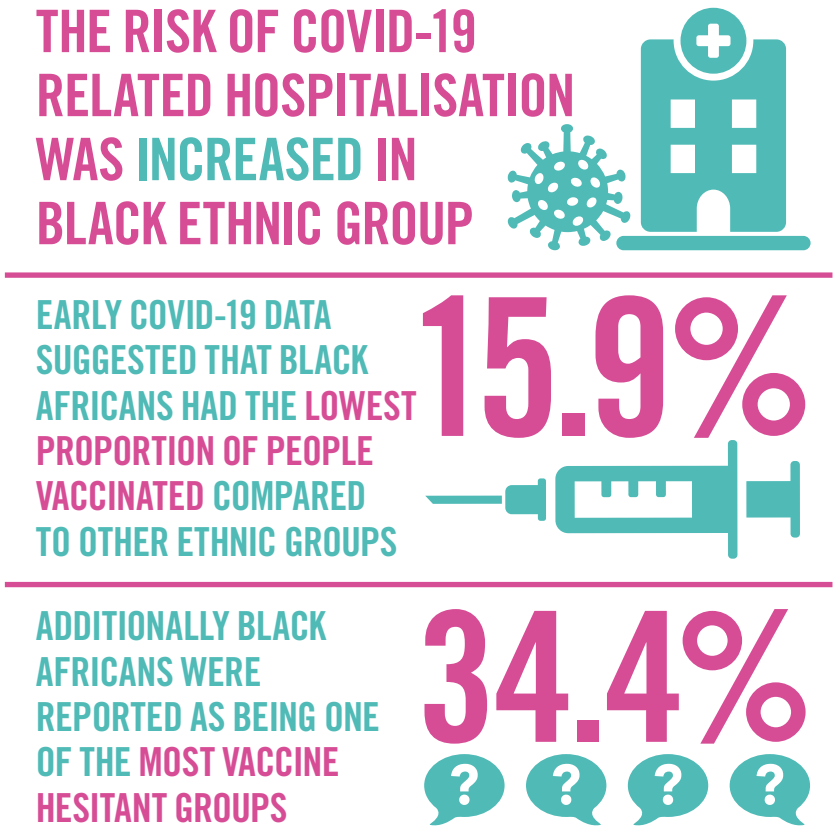
These findings are reasonably consistent with other estimates of life expectancy by ethnic group. Wohland *et al.* calculated disability-free life expectancy (DFLE) and healthy life expectancy (HLE) in England and Wales by age and gender for five-year age groups for 16 ethnic groups by combining the 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)[274]. 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 NIGERIAN 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 Nigerian population in Birmingham. There are a couple of approaches that could be exploited. The English Index of Multiple Deprivation (IMD) comprises 7 domains, one of which, 'Living Environment' contains two dimensions[275]. 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 Africans or Nigerian migrants, 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 or access to cycling.



2.10 Mitigating the Legacy of COVID-19

Mitigating the Legacy of COVID-19 Key Findings:

- The risk of COVID-19-related hospitalisation was increased in Black ethnic group.
- Early COVID-19 data suggested that Black Africans had the lowest proportion of people vaccinated (15.9%) compared to other ethnic groups.
- Additionally Black Africans were reported as being one of the most vaccine hesitant groups (34.4%).

Topics included here are: rates of transmission, severe illness and mortality of people with COVID-19, as well as effect of pandemic on employment and income

2.10.1 COVID-19-related risks of testing, testing positive, hospitalisation, ICU admission, and death

There have been a number of studies by university research teams and government of COVID-19 in UK populations that have focussed on ethnic group disparities in a variety settings and outcomes, including testing, vaccination rates, COVID-19 infection, hospitalisation, intensive care unit (ICU) admission, and deaths[276]. One of the key challenges in such studies has been their size, often limiting the presentation of findings to pan-ethnicity level (White, Mixed, Black, Asian, and Other).

However, the observational study by Mathur *et al.* uses OpenSAFELY platform data from primary care for 17.3 million adults (aged ≥18 years, of whom 340,912 (2·0%) were Black) from a cohort of 24 million people

covering 40% of the population in England, registered with primary care practices in England[277]. This enabled reporting at five high-level census categories (White, South Asian, Black, Other, and Mixed) and 16 subcategories for a range of COVID-19 related outcomes (SARS-CoV-2 testing, positive test results, COVID-19-related hospital admissions, intensive care unit (ICU) admissions, and death) for two study periods (Feb 1 to Aug 3, 2020 [wave 1], and Sept 1 to Dec 31, 2020 [wave 2]). Models were adjusted for age, sex, deprivation, clinical factors and comorbidities, and household size.

In wave 1, the likelihood of being tested for SARS-CoV-2 infection was slightly higher in the South Asian group (adjusted hazard ratio 1·08 [95% CI 1·07–1·09]), Black group (1·08 [1·06–1·09]), and Mixed ethnicity group (1·04 [1·02–1·05]) and was decreased in the Other ethnicity group (0·77 [0·76–0·78]) relative to the White group. The adjusted hazard ration (AHR) for Black Africans, 1.09 (1.08-1.11) was similar to that for the Black group. The risk of testing positive for SARS-CoV-2 infection was higher in the South Asian group (1·99 [1·94–2·04]), Black group (1·69 [1·62–1·77]), Mixed ethnicity group (1·49 [1·39–1·59]), and Other ethnicity group (1·20 [1·14–1·28]). The Black African AHR (1.91 (1.80-2.02)) was higher than that for the Black group. The risk of COVID-19-related hospitalisation was increased in the South Asian group 1·48 [1·41–1·55], Black group 1·78 [1·67–1·90], Mixed ethnicity group 1·63 [1·45–1·83], Other ethnicity group 1·54 [1·41–1·69]), compared with the White group. The AHR was higher for Black Africans (2.10, 1.91-2.30) than the Black group and was, indeed, the highest of all 16 ethnic groups. The risk of COVID-19-related ICU admission was higher in the South Asian group (2·18 [1·92–2·48]), Black group (3·12 [2·65–3·67]), Mixed group (2·96 [2·26–3·87]), and Other ethnic group (3·18 [2·58–3·93]), than the White group. The Black African AHR (4.20 [3.44-5.12] was higher than that for the Black group and was the second highest of the 16 ethnic groups (after the Mixed: White and Black African group). Finally, the risk of COVID-19-related death was higher in the Asian group (1·26 [1·15–1·37]), Black group (1·51 [1·31–1·71]), Mixed group (1·41 [1·11–1·81]), and Other ethnic group (1·22 [1·00–1·48]) than the White group[278]. The AHR in the Black African group was 1.77 (1.43-2.19), higher than the Black group and the highest of the 16 ethnic groups. In wave 2, the risks of hospitalisation, ICU admission, and death relative to the White group were increased in the South Asian group but lessened for the Black group compared with these risks in wave 1.

In wave 1, among the 78,124 care home residents, people of Black ethnicity (adjusted HR 1·43 [95% CI 1·02–2·00]) and Other ethnicity (1·73 [1·19–2·50]) were more likely to die from COVID-19 than people of White ethnicity, after adjustment for measured explanatory variables. Data published by the Care Quality Commission (CQC) for the period 10 April -15 May 2020 showed that in care home settings, 54% of deaths amongst Black people and 49% of deaths amongst Asian people were related to COVID-19 compared to 44% of deaths of White people and 41% for Mixed or Multiple ethnic groups[279]. ONS data for care home residents in the study population as of 31 December 2019 and number of deaths involving COVID-19 between 2 March to 28 July 2020, England, showed that the percentage of deaths in the Black male population was 6.3% (compared with 6.5% in the White group) but 5.6% amongst Black females (4.4% in the White group)[280].

These excess risks of testing positive for SARS-CoV-2 and of other adverse COVID-19 outcomes compared with the White population, have been adjusted for age, sex, deprivation, clinical factors and comorbidities, and household size. The causes or mechanisms responsible for these disparities are likely to be complex and multifactorial and probably specific to the detailed ethnic groups. Many factors have been suggested in this study and the wider literature (some controlled for in this study), including living in deprived areas; differences in genetic ancestry; occupation, especially working in high-exposure or front-line occupations; living in large, multigenerational households; other community exposures; a higher

burden of underlying conditions; experiences of racism or structural discrimination; health-related behaviours, and poor access to health or community services. Moreover, disparities in testing may relate to a lack of access to testing, fear of losing income or employment if required to quarantine after testing positive; poorer health literacy, lack of tailored and accessible health communications, or differences in testing-related health-related behaviours.

2.10.2 Vaccinated patients

An NHS-administered COVID-19 vaccination programme was started on 8th December 2020. MacKenna *et al.* used routine clinical data from 23.4 million patients to conduct a retrospective cohort study of comprehensive electronic health record data in NHS England, using the OpenSAFELY-TPP platform[281]. This study was the first to investigate vaccinations by ethnic group. Between December 8th and January 13th, of 1,160,062 patients aged 80 or over and not living in a care home, 476,375 had been vaccinated in total (41.1%). The investigators report a substantial divergence in vaccination by ethnicity within this group, varying from White, 42.5%, the highest proportion vaccinated across the five pan-ethnicities, to Black, 20.5%, the lowest (27.0%-29.5% among people of Mixed, Other and South Asian ethnicities and 39.7% among those with unknown ethnicity). There was substantial heterogeneity across the detailed 16 ethnic groups. Black Africans had the lowest proportion vaccinated (15.9%), below Black Caribbeans (21.8%), Other Black (20.8%), White and Black African (20.9%), and White and Black Caribbean (22.4%). With respect to increase in coverage over one week (6th-13th January), Black Africans had the lowest percentage increase (6.4%), substantially lower than for the White British group (17.1%). There was also variation across rankings of deprivation (least deprived 44.7%, most deprived 37.9%). Lower vaccination rates among ethnic minority and deprived groups was observed in most but not all Sustainability and Transformation Partnerships.

Explanations of ethnic disparities in vaccinations may include systematic barriers to healthcare access and vaccine hesitancy. The authors suggest that the reduction of the ethnic inequalities in COVID-19 risks will require action on social determinants including addressing disadvantage and discrimination, reducing risk of infection and transmission, improving quality of and access to quality clinical care, and improving management of pre-existing clinical conditions.

2.10.3 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[282]. 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[283]. 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 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[284].

2.10.4 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.* investigated ethnic differences in SARS-CoV-2 vaccine hesitancy in United Kingdom healthcare workers, using results from the UK-REACH prospective nationwide cohort study[285]. 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.* 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[286]. 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'.

2.10.5 Interventions to increase vaccine uptake in minority ethnic communities

Based on a rapid review, QResearch 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[287].

3.0 Conclusion

There are no reliable estimates of the Nigerian ethnic group in England and Wales. Yet there is likely to be a significant (but unknown) second generation as Nigerians have had a long history of migration to the country. 10,358 Nigerians migrated to England and Wales before 1981 and a further 56,833 during the period 1981-2000. However, it remains likely that the majority of the Nigerian ethnic group are still migrants. Moreover, in the 2011 Census 60% of Nigerian migrants were recent migrants (2001-2011). This demographic picture makes the experiences of first generation migrants in their country of origin particularly relevant to the health and healthcare experiences of Nigerians in this country. An understanding of the cultural context of the lives of people from minority ethnic groups is essentially to the delivery of culturally competent healthcare.

Two studies, based on qualitative research involving ten participants, have investigated factors that affect health-seeking behaviour and health services utilisation of Christian Nigerian immigrants to the UK[288, 289]. Consistent with other research reports, these studies focus on African reliance on families for health advice and social support, especially the elders and significant others which included family heads and spiritual leaders/religious ministers. Beliefs and health-seeking behaviours may either hinder or enhance favourable health outcomes. This study confirmed that Nigerian patients relied more on the religious/cultural healing method. Some reports of pre-migration factors did not preclude the quest by Nigerians towards integration into the British culture. However, patients' illness perceptions could be related to pre-migration religious and cultural beliefs/practices that influence health-related decisions. For example, relying on spiritual healers has influenced the proliferation of spiritual healing methods representing 'one significant factor for understanding the rapid proliferation, popularity and public relevance of contemporary dimensions of African Christianity'. The investigators argue that Nigerian immigrants should be encouraged to change their attitude towards sourcing health information, with the overall aim of changing negative health-seeking behaviours; this should be combined with adequate understanding of a patients' culture by the clinician, resulting in enhanced communication with health professionals who need the trust of patients. Religious leaders and health providers from Nigeria can influence health decisions among this migrant community and help achieve the needed cultural matching between care providers and service users.

Again, religious beliefs and behaviours have been identified as relevant determinants of how immigrants cope, and the health-seeking approaches adopted in response to ill health, in a cross-sectional study[290]. Using questionnaires for 297 participants, these investigators sought to predict attitudes towards seeking medical care among Nigerian immigrants in the UK. Results revealed negative correlations between assimilative behaviours and religious behaviours and between religious behaviours, denial and religious coping. High levels of religiosity and coping through behavioural disengagement and self-blame predicted poor attitudes to medical help. Those who used instrumental and emotional support and active coping showed more positive attitudes to medical help-seeking. Older people sought medical help more than those who were younger and affiliation to the Christian religion predicted positive attitudes towards medical help seeking. The investigators emphasise the need for integrative and culture-sensitive policies and a healthcare system that can understand the potentially important individual differences that contribute to healthcare seeking behaviours. Thus, these authors emphasise the importance of developing appropriate acculturation measures for people of African descent in instruments or scales, relative to their historical and cultural antecedents, as well as immigration contexts[291].

There is some evidence on the experiences of Black Africans (rather than Nigerians) in using services, including the NHS Patient Experience Surveys and the GP Patient Survey.

Clearly, the cultural encounter between patients and clinicians or other care providers is only one set of factors that may contribute to inequalities in health and healthcare. Central amongst these mechanisms is the role of structural racism and disadvantage which plays a major role in the social determinants of health. This report has shown how Black Africans are disadvantaged in almost every characteristic of the housing market, discrimination having consistently impeded their progress over several decades. Similarly, although Black Africans in 2011 had higher educational attainments than almost all other minority ethnic groups and the White British group, they have experienced consistently high levels of unemployment and a disproportionate presence in low-skilled jobs. This situation is generally regarded as an 'ethnic penalty' accounted for by direct and indirect discrimination of employers. In the last few years, these inequalities have been exacerbated by the COVID-19 pandemic. Black Africans have almost without exception experienced the worst outcomes whatever measure of risk is taken.

4.0 Appendix

Appendix 1: Persons born in Nigeria and resident in the West Midlands by age and sex

Age	Female	Male
0 to 4	63	82
5 to 9	90	100
10 to 15	70	61
16 to 19	197	144
15	42	50
16 to 17	110	97
18 to 19	169	179
20 to 24	579	560
25 to 29	610	900
30 to 34	613	809
35 to 39	386	598
40 to 44	264	393
45 to 49	238	304
50 to 54	170	269
55 to 59	90	125
60 to 64	44	55
65 to 69	36	29
70 to 74	20	31
75 to 79	8	21
80 to 84	4	14
85+	0	4

Appendix 2: 'Black African' persons resident in Birmingham by age and sex

Age	Female	Male
0 to 24	7738	7640
25 to 29	6495	6250
50 to 64	672	781
65 and over	203	212

Appendix 3: Black African Population by sex (Men), by age, by country of birth (born in the UK, born overseas).

Age	Men (Born Overseas)	Men (Born in the UK)
0 to 4	209	1914
5 to 9	661	1040
10 to 15	1489	211
16 to 19	1000	137
20 to 24	1018	169
25 to 29	1136	116
30 to 34	1548	100
35 to 39	1465	79
40 to 44	1123	100
45 to 49	723	70
50 to 54	432	30
55 to 59	227	7
60 to 64	122	2
65 to 69	79	2
70 to 75	69	3
75 to 79	36	3
80+	29	0

Appendix 4: Black African Population by sex (Women), by age, by country of birth (born in the UK, born overseas).

Age	Women (Born overseas)	Women (Born in the UK)
0 to 4	116	1839
5 to 9	610	993
10 to 15	1489	237
16 to 19	989	154
20 to 24	1242	184
25 to 29	1375	77
30 to 34	1782	97
35 to 39	1450	64
40 to 44	1105	83
45 to 49	601	52
50 to 54	383	24
55 to 59	179	8
60 to 64	105	2
65 to 69	79	4
70 to 75	62	0
75 to 79	30	3
80+	23	3

Appendix 5: Nigerian population of Birmingham by ward

2011 ward	All categories: Country of birth	Africa: Central and Western Africa: Nigeria	Nigerian Population (%)
E05001178 : Acocks Green	28,378	19	0.07%
E05001179 : Aston	32,286	249	0.77%
E05001180 : Bartley Green	24,967	78	0.31%
E05001181 : Billesley	26,536	25	0.09%
E05001182 : Bordesley Green	33,937	23	0.07%
E05001183 : Bournville	25,938	33	0.13%
E05001184 : Brandwood	25,708	36	0.14%
E05001185 : Edgbaston	24,426	153	0.63%
E05001186 : Erdington	22,828	63	0.28%
E05001187 : Hall Green	26,429	18	0.07%
E05001188 : Handsworth Wood	27,749	94	0.34%
E05001189 : Harborne	23,001	110	0.48%
E05001190 : Hodge Hill	28,026	205	0.73%
E05001191 : Kings Norton	24,380	47	0.19%
E05001192 : Kingstanding	25,334	93	0.37%
E05001193 : Ladywood	30,133	309	1.03%
E05001194 : Longbridge	25,410	42	0.17%
E05001195 : Lozells and East Handsworth	31,074	140	0.45%
E05001196 : Moseley and Kings Heath	25,669	42	0.16%
E05001197 : Nechells	33,957	198	0.58%
E05001198 : Northfield	25,707	61	0.24%
E05001199 : Oscott	24,615	31	0.13%
E05001200 : Perry Barr	23,652	142	0.60%
E05001201 : Quinton	24,174	86	0.36%
E05001202 : Selly Oak	25,885	197	0.76%
E05001203 : Shard End	26,794	28	0.10%
E05001204 : Sheldon	21,817	13	0.06%
E05001205 : Soho	30,317	167	0.55%
E05001206 : South Yardley	30,786	34	0.11%
E05001207 : Sparkbrook	32,415	41	0.13%
E05001208 : Springfield	31,391	68	0.22%
E05001209 : Stechford and Yardley North	25,757	68	0.26%
E05001210 : Stockland Green	24,319	148	0.61%
E05001211 : Sutton Four Oaks	24,025	30	0.12%
E05001212 : Sutton New Hall	22,455	27	0.12%
E05001213 : Sutton Trinity	25,267	14	0.06%
E05001214 : Sutton Vesey	23,360	27	0.12%
E05001215 : Tyburn	25,297	81	0.32%
E05001216 : Washwood Heath	32,921	55	0.17%
E05001217 : Weoley	25,925	104	0.40%

5.0 Acknowledgements

Contributors:

Ricky Bhandal –Service Lead, Birmingham City Council

Caroline Chioto –Senior Officer, Birmingham City Council

Alice Spearing – Senior Officer, Birmingham City Council

Joseph Merriman – Senior Officer, Birmingham City Council

Rhys Boyer – Officer, Birmingham City Council

Alexander Robinson – Support Officer, Birmingham City Council

Jordan Francis – Graduate Officer, Birmingham City Council

Tariro Mandisodza - Graduate Officer, Birmingham City Council

Manuela Engelbert - Graduate Officer, Birmingham City Council

Nazmin Khanom - Graduate Officer, Birmingham City Council

Dr. Justin Varney – Director of Public Health, Birmingham City Council

Tessa Lindfield – Assistant Director of Public Health, Birmingham City Council

Modupe Omonijo - Assistant Director of Public Health, Birmingham City Council

Alan Davis – Head of Marketing, Birmingham City Council

Carl Madden – Designer, Birmingham City Council

Barques Design – Production of Artwork/Typesetting

6.0 References

1 *Kirk-Greene, Anthony Hamilton Millard, Udo, Reuben Kenrick, Ajayi, J.F. Ade and Falola, Toyin O. Encyclopaedia Britannica. Nigeria (28 April 2022). Accessed at: https://www.britannica.com/place/Nigeria*

2 *Aspinall PJ. 2021. BAME (Black, Asian and minority ethnic): the 'new normal' in collective terminology. Journal of Epidemiology and Community Health Feb 2021, 75 (2) 107; DOI: 10.1136/jech-2020-215504. Accessed at: https://jech.bmj.com/content/75/2/107*

3 *Demie F, McDonald, J, Hau, A. Language Diversity and Attainment in Secondary School. London: Lambeth Research and Statistics Unit, 2016 (May). Accessed at: https://www.lambeth.gov.uk/rsu/sites/www.lambeth.gov.uk.rsu/files/Language_%20Diversity_and_Attainment_in_Secondary_Schools_2014.pdf*

4 *Akinlua JT, Meakin R, Freemantle N. (2017) Beliefs about hypertension among Nigerian immigrants to the United Kingdom: A qualitative study. PLoS ONE 2017; 12(7): e0181909. https://doi.org/10.1371/journal.pone.0181909*

5 *Kirk-Greene, Anthony Hamilton Millard, Udo, Reuben Kenrick, Ajayi, J.F. Ade and Falola, Toyin O. Encyclopaedia Britannica. Nigeria (28 April 2022). Accessed at: https://www.britannica.com/place/Nigeria*

6 *Okpokiri CG. First-generation Nigerian Immigrant Parents and Child Welfare Issues in Britain. PhD in Social Work and Social Care University of Sussex, September 2017.*

7 *Udo RK. (1980) Environment and Peoples of Nigeria: A Geographical Introduction to the History of Nigeria. In: O Ikime (ed.) Groundwork of Nigerian History (1st ed.). Ibadan: Heinemann Educational Books,1980 (cited by Okpokiri 2017).*

8 *Ajayi O. Nigeria, Africa's Failed Asset. Ibadan: Bookcraft, 2012 (cited by Okpokir 2017).*

9 *Burns A. History of Nigeria (8th ed.). London: Allen and Unwin, 1972 (cited by Okpokir 2017).*

10 *2011 Census DC2205EW. Country of birth by ethnic group and sex. [online]. Accessed at: https://webarchive.nationalarchives.gov.uk/ukgwa/20160202163208/https://www.nomisweb.co.uk/census/2011/dc2205ew*

11 *ONS. Population of the UK by country of birth and nationality (2021) [online]. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/datasets/populationoftheunitedkingdombycountryofbirthandnationality*

12 *2011 Census (2013). Detailed country of birth and nationality analysis from the 2011 Census of England and Wales. [online] Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/detailedcountryofbirthandnationalityanalysisfromthe2011censusofenglandandwales/2013-05-13*

13 *ONS Country of birth by sex by age (regional) [DC2109EWr]. (2011)*

14 *ONS Ethnic group by age and sex. [LC2101EW]. (2011)*

15 *Office for National Statistics (2021). Population of the UK by country of birth and nationality: 2020. [online] Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/bulletins/ukpopulationbycountryofbirthandnationality/2020*

16 *O'Brien O, Cheshire J. Interactive mapping for large, open demographic data sets using familiar geographical features. Journal of Maps 2016; 12: 676-683. doi: 10.1080/17445647.2015.1060183; https://datashine.org.uk/#table=QS201EW&col=QS201EW0017&ramp=YlOrRd&layers=BTFT&zoom=12&lon=-2.6009&lat=53.7468*

17 *HESA. 2021. Where do HE students come from? | HESA https://www.hesa.ac.uk/data-and-analysis/students/where-from#detailed*

18 *2011 Census. Detailed UK migration statistics. [online]. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/migrationwithintheuk/datasets/2011censusdetailedukmigrationstatistics*

19 *2011 Census DC2207EW. Country of birth by religion and sex. [online]. Accessed at: https://www.nomisweb.co.uk/census/2011/DC2207EW*

20 *Communities and Local Government. The Nigerian Muslim Community in England. Understanding Muslim Ethnic Communities. London: Communities and Local Government, 2009 (April).*

21 *Simpson L. What makes ethnic group populations grow? Age-structures and immigration. Dynamics of diversity series. Manchester, England: ESRC Centre on Dynamics of Ethnicity, 2013.*

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

23 *ONS. Births in England and Wales by parents' country of birth. London: ONS, 2015.*

24 *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*

25 *2011 Census KS205. Key statistics: passports held*

26 *Onyigbuo, Chineme (2016) Exploring health-seeking behaviours among Nigerians in the UK: towards improved healthcare utilisation. PhD thesis, Middlesex University.*

27 *Onyigbuo CC, Alexis-Garsee C and van den Akker O Predicting attitudes towards seeking medical care among Nigerian immigrants in the UK . Mental Health, Religion and Culture 2018a; 21(8): 810-824.*

28 *Simpson L. What makes ethnic group populations grow? Age-structures and immigration. Dynamics of diversity series. Manchester, England: ESRC Centre on Dynamics of Ethnicity, 2013.*

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

30 *ONS. Births in England and Wales by parents' country of birth. London: ONS, 2015.*

31 *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*

32 *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.*

33 *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.*

34 *CMACE (Centre for Maternal and Child Enquires) (2011). Saving Mothers' Lives: Reviewing maternal deaths to make motherhood safer: 2006-2008. Blackwell, London.*

35 *McDonald H, Moren C & Scarlett J (2020). Health inequalities in timely antenatal care: audit of pre-and post-referral delays in antenatal bookings in London 2015–16. Journal of Public Health. doi:10.1093/pubmed/fdz184*

36 *Billings H, Atef Shebl N (2021) Factors contributing towards women booking late for antenatal care in the UK. Evidence Based Midwifery*

37 *Chinouya M, Madziva C. Late booking amongst African women in a London borough, England: implications for health promotion. Health Promotion International 2019; 34(1): 123–132, https://doi.org/10.1093/heapro/dax069*

38 *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*

39 *Dike P. Birth practices of Nigerian women in the UK. British Journal of Midwifery 2013 (January); 21(1): 41-52.*

40 *Moore L, Jayaweera H, Redshaw M, Quigley M. Migration, ethnicity and mental health: evidence from mothers participating in the Millennium Cohort Study. Public Health 2019; 171: 66-75.*

41 *Afolabi O, Bunce L, Lusher J, Banbury S. Postnatal depression, maternal-infant bonding and social support: a cross-cultural comparison of Nigerian and British mothers. Journal of Mental Health 2020; 29(4): 424-430.*

42 *Oladayo A, Bunce L, Lusher J, Banbury S. Postnatal depression, maternal–infant bonding and social support: a cross-cultural comparison of Nigerian and British mothers. J Ment Health 2020; 29(4): 424–430.*

43 *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*

44 *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*

45 *Jardine J, Walker K, Gurol-Urganci I, Webster K, Muller P, Hawdon J, et al. Adverse pregnancy outcomes attributable to socioeconomic and ethnic inequalities in England: a national cohort study. Published online November 1, 2021 https://doi.org/10.1016/S0140-6736(21)01595-6*

46 *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*

47 *Public Health England (PHE). Infant and Perinatal Mortality in the West Midlands. London: Public Health England, 2016.*

48 *Public Health England (PHE). Infant and Perinatal Mortality in the West Midlands. London: Public Health England, 2016.*

49 *Zanconato G, Cavaliere E, Santoro CB, Cascella S, Pinto A, Comper A, Machungo F. Inequalities in maternal health and pregnancy outcome among Nigerian women migrated to Italy. African Journal of Reproductive Health 2021 (Aug.); 25(4): 43-51.*

50 *Aspinall, P.J., Chinouya, M.J. (2016). Long-Term Conditions and Infectious Diseases. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_8*

51 *Dike P. Birth practices of Nigerian women in the UK. British Journal of Midwifery 2013 (January); 21(1): 41-52*

52 *CMACE (Centre for Maternal and Child Enquires) (2011). Saving Mothers' Lives: Reviewing maternal deaths to make motherhood safer: 2006-2008. Blackwell, London.*

53 *Nzira V. Social care with African families in the UK. Abingdon, England: Routledge, 2011.*

54 *Hoskins R. The boy in the river. Basingstoke, England: Pan Books, 2012.*

55 *Nzira V. Social care with African families in the UK. Abingdon, England: Routledge, 2011.*

56 *Ifekwunigwe J. Scattered belongings. London: Routledge, 1999.*

57 *Aspinall PJ and Song M. Mixed Race Identities (Identity Studies in the Social Sciences Series). Basingstoke, England: Palgrave Macmillan, 2013.*

58 *Okpokiri CG. First-generation Nigerian Immigrant Parents and Child Welfare Issues in Britain. PhD in Social Work and Social Care University of Sussex, September 2017.*

59 *Okpokiri C. Parenting in fear: Child welfare micro strategies of Nigerian parents in Britain. British Journal of Social Work 2021; 51(2): 427–444.*

60 *Okpokiri C. Nigerian parents have fears of 'parenting-while-Black' in Britain. The Conservation, 6 January 2021. Accessed at: https://theconversation.com/nigerian-parents-have-fears-of-parenting-while-black-in-britain-152197*

61 *Okpokiri CG. First-generation Nigerian Immigrant Parents and Child Welfare Issues in Britain. PhD in Social Work and Social Care University of Sussex, September 2017.*

62 *Agboado G, Michel E, Jackson E, Verma A. Factors associated with breastfeeding cessation in nursing mothers in a peer support programme in Eastern Lancashire. BMC Pediatrics 2010, 10:3 http://www.biomedcentral.com/1471-2431/10/3*

63 *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, 2022 (February).*

64 *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*

65 *Tiley KS, JM White, N Andrews, M Ramsay, M Edelstein. (2018). Inequalities in childhood vaccination timing and completion in London. Vaccine 2018 Oct 29;36(45):6726-6735. doi: 10.1016/j.vaccine.2018.09.032.*

66 *Mixer RE, Jamrozik K, Newsom D. Ethnicity as a correlate of the uptake of the first dose of mumps, measles and rubella vaccine. J Epidemiol Community Health 2007;61:797–801. doi: 10.1136/jech.2005.045633*

67 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

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

69 *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*

70 *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. (quoting Department for Education, PQ 63494, June 2020)*

71 *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.*

72 *National Statistics. Characteristics of children in need. Reporting Year 2020. Accessed at: https://explore-education-statistics.service.gov.uk/find-statistics/characteristics-of-children-in-need/2020#dataBlock-927e87bd-2858-4f69-8ba4-08d884b70554-tables*

73 *National Statistics. Characteristics of children in need. Reporting Year 2020. Accessed at: https://explore-education-statistics.service.gov.uk/find-statistics/characteristics-of-children-in-need/2020#dataBlock-927e87bd-2858-4f69-8ba4-08d884b70554-tables*

74 *Public Health England. Public Health Outcomes Framework: Health Equity Report. Focus on ethnicity. London: Public Health England, 2017 (July).*

75 *Public Health England. Public Health Profiles. 2021. Accessed at: https://fingertips.phe.org.uk/profile/health-profiles [see also https://fingertips.phe.org.uk/search/school%20readiness#page/7/gid/1/pat/6/par/E12000005/ati/102/are/E08000025/iid/90631/age/34/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/page-options/ine-ao-1_ine-ct-4_ine-pt-0_ine-yo-1:2018:-1:-1]*

76 *Department for Education and skills, Ethnicity and Education: The Evidence on Minority Ethnic Pupils aged 5–16, 2006, [Internet] [cited 23 March 2022] Accessed at: https://dera.ioe.ac.uk/6306/7/0208-2006dom-en_Redacted.pdf*

77 *Department for Education and skills, Ethnicity and Education: The Evidence on Minority Ethnic Pupils aged 5–16, 2006, [Internet] [cited 23 March 2022] Accessed at: https://dera.ioe.ac.uk/6306/7/0208-2006dom-en_Redacted.pdf*

78 *Department for Education and skills, Ethnicity and Education: The Evidence on Minority Ethnic Pupils aged 5–16, 2006, [Internet] [cited 23 March 2022] Accessed at: https://dera.ioe.ac.uk/6306/7/0208-2006dom-en_Redacted.pdf*

79 *Von Ahn, M., Lupton, R., Greenwood, C., & Wiggins, R. (2010). Languages, Ethnicity, Education in London London: Department of Quantitative Social Science, Institute of Education.*

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

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

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

83 *Healthcare Commission. Count Me In. Results of the 2006 National Census of Inpatients in Mental Health and Learning Disability Services in England and Wales. London: Commission for Healthcare Audit and Inspection, 2007*

84 *GOV.UK (2022). Detentions under the Mental Health Act. [online] Accessed at: https://www.ethnicity-facts-figures.service.gov.uk/health/mental-health/detentions-under-the-mental-health-act/latest#data-sources*

85 *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*

86 *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*

87 *NHS Digital. 2022. Improving Access to Psychological Therapies. Accessed at: https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/improving-access-to-psychological-therapies-data-set*

88 *NHS England. Adult Improving Access to Psychological Therapies Programme. Available at: https://www.england.nhs.uk/mental-health/adults/iapt/*

89 *Harwood H, Rhead R, Chui Z, Bakolis I, Connor L, Gazard B, Hatch S. 2021. Variations by ethnicity in referral and treatment pathways for IAPT service users in South London. Psychological Medicine, 1-12. doi:10.1017/S0033291721002518. https://www.cambridge.org/core/journals/psychological-medicine/article/variations-by-ethnicity-in-referral-and-treatment-pathways-for-iapt-service-users-in-south-london/E02A98DE585A16189A6FCFA63A5290DE*

90 *The IAPT Black, Asian and Minority Ethnic Positive Practice Guide (2019). Accessed at: https://www.babcp.com/Therapists/BAME-Positive-Practice-Guide*

91 *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*

92 *NHS (2021). Care for people with mental health problems (Care Programme Approach). [online] Available at: https://www.nhs.uk/conditions/social-care-and-support-guide/help-from-social-services-and-charities/care-for-people-with-mental-health-problems-care-programme-approach/*

93 *Aspinall, P.J., Chinouya, M.J. (2016). Long-Term Conditions and Infectious Diseases. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_8*

94 *Aspinall, P.J., Chinouya, M.J. (2016). Long-Term Conditions and Infectious Diseases. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_8*

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

96 *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.*

97 *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*

98 *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.*

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

100 *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.*

101 *Frissa, S., Hatch, S.L., Gazard, B. et al. Trauma and current symptoms of PTSD in a South East London community. Soc Psychiatry Psychiatr Epidemiol 48, 1199–1209 (2013). https://doi.org/10.1007/s00127-013-0689-8*

102 *Office for National Statistics. Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014: Experimental analysis of ethnic differences in life expectancy and cause-specific mortality in England and Wales based on 2011 Census and death registrations. London: ONS, 2021. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014*

103 *Jack-Ide IO, Azebiri BP, East L. Stigma and mental disorders: Exploring perceptions of Nigerian students in the United Kingdom. Journal of Research in Nursing and Midwifery (JRNM) 2013 (April); 2(3): 40-46.*

104 *Rabiee F & Paula Smith P. (2013) Being understood, being respected: an evaluation of mental health service provision from service providers and users' perspectives in Birmingham, UK. International Journal of Mental Health Promotion 2013; 15(3): 162-177.*

105 *Lavender H, Khondoker AH, Jones R., Understandings of depression: an interview study of Yoruba, Bangladeshi and White British people., Family Practice 2006 (Dec.); 23(6): 651-658.*

106 *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.*

107 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

108 *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.*

109 *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.*

110 *ONS. Adult smoking habits in the UK: 2019. London: ONS, July 2020. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2019#:~:text=In%20the%20UK%2C%20in%202019,2018%20to%2014.1%25%20in%202019.*

111 *Public Health England. Public Health Profiles. 2021. Accessed at: https://fingertips.phe.org.uk/profile/health-profiles [see also https://fingertips.phe.org.uk/search/school%20readiness#page/7/gid/1/pat/6/par/E12000005/ati/102/are/E08000025/iid/90631/age/34/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/page-options/ine-ao-1_ine-ct-4_ine-pt-0_ine-yo-1:2018:-1:-1]*

112 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

113 *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.*

114 *NHS Digital. 20 August 2019. Smoking, drinking and drug use among young people, England, 2018. Smoking prevalence. https://files.digital.nhs.uk/FB/3DE885/sdd-2018-tab1.xlsx*

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

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

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

118 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

119 *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*

120 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

121 *NHS Digital. 2018. 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*

122 *NHS Digital (2016). Adults Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2014. 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*

123 *NHS Digital (2019). Smoking, Drinking and Drug Use among Young People in England 2018 [NS]. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/smoking-drinking-and-drug-use-among-young-people-in-england/2018*

124 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

125 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

126 *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.*

127 *Akinlua JT, Meakin R, Freemantle N. (2017) Beliefs about hypertension among Nigerian immigrants to the United Kingdom: A qualitative study. PLoS ONE 2017; 12(7): e0181909. https://doi.org/10.1371/journal.pone.0181909*

128 *Ethnicity-facts-figures service, 2021. Domestic Abuse. 26th February 2021. https://www.ethnicity-facts-figures.service.gov.uk/crime-justice-and-the-law/crime-and-reoffending/domestic-abuse/latest#by-ethnicity-and-sex*

129 *ONS. Women most at risk of experiencing partner abuse in England and Wales: years ending March 2015 to 2017. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/womenmostatriskofexperiencingpartnerabuseinenglandandwales/yearsendingmarch2015to2017#characteristics-of-women-who-are-most-at-risk-of-experiencing-partner-abuse*

130 *Femi-Ajao O. Intimate partner violence and abuse against Nigerian women resident in England, UK: a cross-sectional qualitative study. BMC Women's Health 2018; 18:123 https://doi.org/10.1186/s12905-018-0610-4*

131 *Onyigbuo CC, Alexis-Garsee C and van den Akker O. Adaptation of the Measurement of Acculturation Strategies for People of African Decent (MASPAD) in measuring acculturation in British Nigerians. Mental Health, Religion and Culture 2018; 21 (9-10): 973-985.*

132 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

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

134 *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*

135 *GOV.UK (2021). Overweight adults [online]. Available at: https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/overweight-adults/latest*

136 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

137 *Lindsay KL, Gibney ER, McNulty BA, McAuliffe FM. Pregnant immigrant Nigerian women: an exploration of dietary intakes. Public Health 2014; 128(7): 647-653.*

138 *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.*

139 *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.*

140 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

141 *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*

142 *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.*

143 *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.*

144 *Piggott, G. (2006) 2001 census: health by ethnic group, religion and country of birth. Data Management and Analysis Group Briefing 2006/3. London: Greater London Authority.*

145 *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.*

146 *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.*

147 *Platt L. COVID-19 and Ethnic Inequalities in England. LSE Public Policy Review. 1(4); art.4, pp. 1-14. https://doi.org/10.31389/lseppr.33.*

148 *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.*

149 *Koser K (ed.). New African diasporas. London: Routledge, 2003.*

150 *HESA. 2021. Where do HE students come from? | HESA https://www.hesa.ac.uk/data-and-analysis/students/where-from#detailed*

151 *Demie F. The Educational Achievement of Black African Children in England. Lambeth Education and Learning: London Borough of Lambeth, 2021 (July).*

152 *Lupton, R., N. Heath and E. Salter (2009) Education: New Labour's top priority, in Hills, J., Sefton, T., and Stewart, K. (eds) Towards a more equal society? Poverty, inequality and policy since 1997, Bristol: Policy Press.*

153 *Demie F, McDonald, J, Hau, A. Language Diversity and Attainment in Secondary School. London: Lambeth Research and Statistics Unit, 2016 (May). Accessed at: https://www.lambeth.gov.uk/rsu/sites/www.lambeth.gov.uk.rsu/files/Language_%20Diversity_and_Attainment_in_Secondary_Schools_2014.pdf.*

154 *Strand, S., Malmberg, L. and Hall, J. (2015). English as an Additional Language (EAL) and Educational Achievement in England: an Analysis of the National Pupil Database. London: EEF [online].*

155 *Aspinall, P.J., Chinouya, M.J. (2016). Socio-economic Position. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_6*

156 *Department for Education and skills, Ethnicity and Education: The Evidence on Minority Ethnic Pupils aged 5–16, 2006, [Internet] [cited 23 March 2022] Accessed at: https://dera.ioe.ac.uk/6306/7/0208-2006dom-en_Redacted.pdf*

157 *Department for Education and skills, Ethnicity and Education: The Evidence on Minority Ethnic Pupils aged 5–16, 2006, [Internet] [cited 23 March 2022] Accessed at: https://dera.ioe.ac.uk/6306/7/0208-2006dom-en_Redacted.pdf*

158 *Strand, S., Malmberg, L., & Hall, J. (2015, January). English as an additional language (EAL) and educational achievement in England: An analysis of the National Pupil Database. Oxford, England: Department of Education, University of Oxford.*

159 *Mitton, L., & Aspinall, P. J. (2011, January). Black Africans in the UK: Integration or segregation? Research findings. Understanding Population trends and Processes [UPTAP]/ESRC.*

160 *Mayor of London. (2012, February). The Mayor's education inquiry. First report. London context and call for evidence. London: Greater London Authority.*

161 *Burgess, S., Greaves, E., & Wilson, D. (2009). An investigation of educational outcomes by ethnicity and religion. Report for the National Equality Panel. Bristol, England: University of Bristol, CMPO.*

162 *Karlsen S, Nazroo J. Being a Muslim in Europe: Attitudes and experiences. Full research report. ESRC End of Award Report. RES-163-25-0009. Swindon: Economic and Social Research Council.*

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

164 *Government Equalities Office (2011). Equality Challenge Unit. [online] Available at: https://www.gov.uk/government/publications/equality-challenge-unit*

165 *Boliver, V. (2015a, May 12). Exploring ethnic inequalities in admission to Russell Group universities. Sociology. doi: 10.1177/0038038515575859.*

166 *Boliver, V. (2015b). Why are British ethnic minorities less likely to be offered places at highly selective universities? In C. Alexander & J. Arday (Eds.), Aiming higher: Race, inequality and diversity in the academy (pp. 15–18). London: Runnymede Trust.*

167 *Demie F and McLean, C. (2007). The achievement of African heritage pupils: A case study of good practice in British school. Educational studies Vol. 33 (4):415-434*

168 *Aspinall, P.J., Chinouya, M.J. (2016). Socio-economic Position. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_6*

169 *Aspinall, P.J., Chinouya, M.J. (2016). Socio-economic Position. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_6*

170 *Likupe, G. (2015). Experiences of African nurses and perceptions of their managers in the NHS. Journal of Nursing Management, 23(2), 231–241.*

171 *Clews G. Concern over numbers of nurses joining register from off-limits countries. Nursing Times 2021 (19 November).*

172 *Likupe, G. (2015). Experiences of African nurses and perceptions of their managers in the NHS. Journal of Nursing Management, 23(2), 231–241.*

173 *General Medical Council. The medical register. [online] Available at: https://www.gmc-uk.org/registration-and-licensing/the-medical-register*

174 *NHS (2020). NHS Workforce Statistics – March 2020. [online] Available at: https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics/march-2020*

175 *NHS Digital. Personal Social Services: Staff of Social Services Departments at 30 September – England, 2014. ONS & NHS Digital, 2015. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/personal-social-services-staff-of-social-services-departments/personal-social-services-staff-of-social-services-departments-at-30-september-england-2014*

176 *Ojo, S. (2012) Ethnic Enclaves to Diaspora Entrepreneurs: A Critical Appraisal of Black British Africans' Transnational Entrepreneurship in London, Journal of African Business, 13:2, 145-156, DOI: 10.1080/15228916.2012.693446*

177 *Ojo, S. (2012) Ethnic Enclaves to Diaspora Entrepreneurs: A Critical Appraisal of Black British Africans' Transnational Entrepreneurship in London, Journal of African Business, 13:2, 145-156, DOI: 10.1080/15228916.2012.693446*

178 *Ekwulugo , F. (2006). Entrepreneurship and SMEs in London (UK): Evaluating the role of Black Africans in this emergent sector . Journal of Management development , 25 (1), 65 – 79 . [Crossref], [Google Scholar]*

179 *Akuniru , J. , & Nwankwo , S. (2005, November). Marketing assistance to SMEs: What small business "really really want." Proceedings of the Annual Conference of the Institute of Small Business and Entrepreneurship, Blackpool. United Kingdom. [Google Scholar]*

180 *Ojo, S. (2012) Ethnic Enclaves to Diaspora Entrepreneurs: A Critical Appraisal of Black British Africans' Transnational Entrepreneurship in London, Journal of African Business, 13:2, 145-156, DOI: 10.1080/15228916.2012.693446*

181 *Aspinall, P.J., Chinouya, M.J. (2016). Socio-economic Position. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_6*

182 *Aspinall, P.J., Chinouya, M.J. (2016). Socio-economic Position. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_6*

183 *Office for National Statistics. (2014c, November 4). 2011 Census analysis: Social and economic characteristics by length of residence of migrant populations in England and Wales. London: Office for National Statistics.*

184 *Mitton, L., & Aspinall, P. J. (2010). Black Africans in England: A diversity of integration experiences. In J. Stillwell & M. van Ham (Eds.), Ethnicity and integration: Understanding population trends and processes (Vol. 3, pp. 179–202). Dordrecht, The Netherlands: Springer.*

185 *Mitton, L., & Aspinall, P. J. (2011, January). Black Africans in the UK: Integration or segregation? Research findings. Understanding Population trends and Processes [UPTAP]/ESRC.*

186 *Aspinall, P.J., Chinouya, M.J. (2016). Socio-economic Position. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_6*

187 *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.*

188 *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.*

189 *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.*

190 *Ethnicity Facts and Figures Service 2021. Overcrowded households. https://www.ethnicity-facts-figures.service.gov.uk/housing/housing-conditions/overcrowded-households/latest*

191 *Ethnicity Facts and Figures Service 2021. Overcrowded households. https://www.ethnicity-facts-figures.service.gov.uk/housing/housing-conditions/overcrowded-households/latest*

192 *Public Health England. 2016. National cancer registration and analysis service data briefing: Ethnicity and stage at diagnosis. PHE 2016. [online] Available at: www.ncin.org.uk/view?rid=3286*

193 *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.*

194 *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.*

195 *Onyigbuo CC, Alexis-Garsee C and van den Akker O. An exploration of health-seeking behaviours among Nigerian Christians in the UK: towards enhanced health services utilisation. Mental Health, Religion and Culture 2016a; 19(3): 255–267 http://dx.doi.org/10.1080/13674676.2016.1166357*

196 *Onyigbuo CC, Alexis-Garsee C and van den Akker O. Nigerian clergy and healthcare professionals' perceptions of health-seeking behaviours among Nigerian immigrants in the UK. Mental Health, Religion and Culture 2016b; 19(10): 1043-1055.*

197 *Mupepi SC, Sampselle CM, & Johnson TRB. Knowledge, attitudes and demographic factors influencing cervical cancer screening behaviour of Zimbabwean women. Journal of Women's Health 2011; 20:943-951.*

198 *Odetola TD. Knowledge, attitude and practice of cervical cancer screening among women in primary health care centres in Ibadan Southeast Local Government Area, Oyu State. West African Journal of Nursing 2011; 22: 1-12.*

199 *Weber MF, Banks E, Smith DP, O'Connell D, & Sitas F. Cancer screening among migrants in an Australian cohort: Cross-sectional analyses from the 45 and up study. BMC Public Health 2009; 9: 144.*

200 *Adanu RMK. 2002. Cervical cancer knowledge and screening in Accra, Ghana. Journal of Women's Health & Gender-based Medicine; 11: 487-488.*

201 *Ogunsiji O, Wilkes LM, Peters K, & Jackson D. Knowledge, attitudes and usage of cancer screening among West African migrant women. Journal of Clinical Nursing 2013; 22 (7-8): 1026-1033.*

202 *Sheppard VB, Christopher J, & Nwabukwu I. Breaking the silence of barrier: opportunities to address breast cancer in African born women. Journal of the Nation Medical Association 2010; 102: 461-468.*

203 *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*

204 *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*

205 *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*

206 *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*

207 *Ogunsiji O, Wilkes LM, Peters K, & Jackson D. Knowledge, attitudes and usage of cancer screening among West African migrant women. Journal of Clinical Nursing 2013; 22 (7-8): 1026-1033.*

208 *Onyigbuo CC, Alexis-Garsee C and van den Akker O. An exploration of health-seeking behaviours among Nigerian Christians in the UK: towards enhanced health services utilisation. Mental Health, Religion and Culture 2016a; 19(3): 255–267 http://dx.doi.org/10.1080/13674676.2016.1166357*

209 *Onyigbuo CC, Alexis-Garsee C and van den Akker O. Nigerian clergy and healthcare professionals' perceptions of health-seeking behaviours among Nigerian immigrants in the UK. Mental Health, Religion and Culture 2016b; 19(10): 1043-1055.*

210 *Momoh C (2004) Attitudes to female genital mutilation. British Journal of Midwifery 2004; 12 (10): 631-635.*

211 *Oladepo, O, Ricketts, O.L., and Yetunde John-Akinola. Knowledge and Utilization of Cervical Cancer Screening Services among Nigerian Students. International Quarterly of Community Health Education 2009; 29 (3): 293-304. DOI: 10.2190/IQ.29.3.g.*

212 *Campbell C, Douglas A, Williams L, et al. 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;10:e037011. doi:10.1136/bmjopen-2020-037011*

213 *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*

214 *Porter T (2008) Interventions to reduce inequity and inequality in accessing national screening programmes: a report for the UK National Screening Committee, Public Health Resource Unit [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/398827/Porter_2008_Interventions_to_reduce_inequity_and_inequality_in_national_screening_programmes.pdf*

215 *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*

216 *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.*

217 *Oladepo, O, Yusuf, O.B, Yetunde Olufisayo, J.A, Arulogun, O.S. Prostate Cancer Awareness, Knowledge, and Screening Practices among Older Men in Oyo State, Nigeria. International Quarterly of Community Health Education 2010; 30 (3): 271-286. DOI: 10.2190/IQ.30.3.g.*

218 *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*

219 *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.*

220 *Review of HIV epidemiology in London. Public Health England Field Epidemiology Services (Victoria Office). November 2013*

221 *Public Health England. Trends in HIV testing, new diagnoses and people receiving HIV-related care in the United Kingdom: data to the end of December 2019. Health Protection Report Volume 14 Number 20. London: Public Health England, 2020 (3 November).*

222 *Bourne C, Knight V, Guy R, Wand H, Lu H, McNulty A. Short message service reminder intervention doubles sexually transmitted infection/HIV re-testing rates among men who have sex with men. Sex Transm Infect. 2011;87(3):229–31.*

223 *Public Health England. Trends in HIV testing, new diagnoses and people receiving HIV-related care in the United Kingdom: data to the end of December 2019. Health Protection Report Volume 14 Number 20. London: Public Health England, 2020 (3 November).*

224 *Chinouya M, Hildreth A, Goodall D, Aspinall PJ, Hudson A. Migrants and HIV stigma: findings from the Stigma Index Study (UK). Health and Social Care in the Community 2014; 25(1): 35-42.*

225 *Doyal, L., & Anderson, J. (2005). 'My fear is to fall in love again…' How HIV-positive African women survive in London. Social Science and Medicine, 60 (8), 1729 - 1738. https://doi.org/10.1016/j.socscimed.2004.08.041*

226 *Tariq S, Pillen A, Tookey PA, Brown AE, Elford J. The impact of African ethnicity and migration on pregnancy in women living with HIV in the UK: design and methods. BMC Public Health. 2012 Aug 2;12:596. doi: 10.1186/1471-2458-12-596. PMID: 22853319; PMCID: PMC3490824.*

227 *Public Health England (2014). Sexually transmitted infections (STI) in England: 2014 [online] Available at: https://www.gov.uk/government/statistics/announcements/sexually-transmitted-infections-sti-in-england-2014#full-publication-update-history*

228 *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.*

229 *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.*

230 *Aspinall, Peter J., Jacobsen, Bobbie (2004) Ethnic disparities in health and health care: a focused review of the evidence and selected examples of good practice: Executive summary. London Health Observatory, London, 22 pp. (KAR id:7769)*

231 *GOV.UK. (2021). Gonococcal resistance to antimicrobials surveillance programme report. [online] Available at: https://www.gov.uk/government/publications/gonococcal-resistance-to-antimicrobials-surveillance-programme-grasp-report*

232 *Johns Hopkins (2021). 'Check Am O!' Campaign Works to Tackle Tuberculosis in Nigeria'. [online]. Available at: https://ccp.jhu.edu/2021/03/24/new-campaign-tackle-tuberculosis-nigeria/*

233 *Public Health England (2015). Tuberculosis (TB) in England: surveillance data [online] Available at: https://www.gov.uk/government/publications/tuberculosis-tb-in-england-surveillance-data*

234 *Aspinall, P.J., Chinouya, M.J. (2016). Long-Term Conditions and Infectious Diseases. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_8*

235 *Public Health England. Public Health Profiles. 2021. Accessed at: https://fingertips.phe.org.uk/profile/health-profiles [see also https://fingertips.phe.org.uk/search/school%20readiness#page/7/gid/1/pat/6/par/E12000005/ati/102/are/E08000025/iid/90631/age/34/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/page-options/ine-ao-1_ine-ct-4_ine-pt-0_ine-yo-1:2018:-1:-1]*

236 *Chinouya MJ, Adeyanju O. A disease called stigma: the experience of stigma among African men with TB diagnosis in London. Public Health. 2017 Apr;145:45-50. doi: 10.1016/j.puhe.2016.12.017. Epub 2017 Jan 20. PMID: 28359390.*

237 *HS Digital. Female Genital Mutilation - July 2021 to September 2021. NHS Digital, 25 November 2021. Accessed at: https://digital.nhs.uk/data-and-information/publications/statistical/female-genital-mutilation/july-2021-to-september-2021*

238 *Gbadebo BM, Salawu AT, Afolabi RF, Salawu MM, Fagbamigbe AF, and Adebowale AS. Cohort analysis of the state of female genital cutting in Nigeria: prevalence, daughter circumcision and attitude towards its discontinuation. BMC Women's Health 2021; 21: 182.*

239 *NHS England. Commissioning services to meet the needs of women and girls with FGM. London: NHS England, 2018 (March).*

240 *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*

241 *Office for National Statistics. Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014: Experimental analysis of ethnic differences in life expectancy and cause-specific mortality in England and Wales based on 2011 Census and death registrations. London: ONS, 2021. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014*

242 *National Statistics and Health and Social Care Information Centre. 2005. Health survey for England 2004: The health of minority ethnic groups. Leeds, England: National Statistics and NHS health and Social Care Information Centre.*

243 *ONS (Aug 19, 2021). Mortality from leading causes of death by ethnic group, England and Wales: 2012 to 2019 (and related data release). Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/mortalityfromleadingcausesofdeathbyethnicgroupenglandandwales/2012to2019*

244 *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.*

245 *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.*

246 *Aspinall, P.J., Chinouya, M.J. (2016). Long-Term Conditions and Infectious Diseases. In: The African Diaspora Population in Britain. Migration, Diasporas and Citizenship. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-45654-0_8*

247 *S.H. Wild, C. Fischbacher, A. Brock, C. Griffiths, R. Bhopal, Mortality from all causes and circulatory disease by country of birth in England and Wales 2001–2003, Journal of Public Health, Volume 29, Issue 2, June 2007, Pages 191–198, https://doi.org/10.1093/pubmed/fdm010*

248 *S.H. Wild, C. Fischbacher, A. Brock, C. Griffiths, R. Bhopal, Mortality from all causes and circulatory disease by country of birth in England and Wales 2001–2003, Journal of Public Health, Volume 29, Issue 2, June 2007, Pages 191–198, https://doi.org/10.1093/pubmed/fdm010*

249 *Shirley, M.H., Barnes, I., Sayeed, S. et al. Incidence of breast and gynaecological cancers by ethnic group in England, 2001–2007: a descriptive study. BMC Cancer 14, 979 (2014). https://doi.org/10.1186/1471-2407-14-979*

250 *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.*

251 *Wild, S.H., Fischbacher, C.M., Brock, A., Griffiths, C.E., & Bhopal, R.S. (2006). Mortality from all cancers and lung, colorectal, breast and prostate cancer by country of birth in England and Wales, 2001–2003. British Journal of Cancer, 95, 424 - 424.*

252 *C. Bouchardy et al. Cancer mortality among sub-Saharan African migrants in France Cancer Causes Control (1995)*

253 *Wild, S.H., Fischbacher, C.M., Brock, A., Griffiths, C.E., & Bhopal, R.S. (2006). Mortality from all cancers and lung, colorectal, breast and prostate cancer by country of birth in England and Wales, 2001–2003. British Journal of Cancer, 95, 424 - 424.*

254 *ONS (Aug 19, 2021). Mortality from leading causes of death by ethnic group, England and Wales: 2012 to 2019 (and related data release). Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/mortalityfromleadingcausesofdeathbyethnicgroupenglandandwales/2012to2019*

255 *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.*

256 *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.*

257 *Aspinall, P (2003). 'The use of ethnicity to identify the population at risk in pre-operative sickle cell screening'. Anaesthesia, 2003,58, pages 1119–1146*

258 *Aspinall PJ and Song M. Mixed Race Identities (Identity Studies in the Social Sciences Series). Basingstoke, England: Palgrave Macmillan, 2013.*

259 *Pham TM, Petersen I, Walters K, Raine R, Manthorpe J, Mukadam N, Cooper C. Trends in dementia diagnosis rates in UK ethnic groups: analysis of UK primary care data. Clinical Epidemiology 2018; 10: 949-960.*

260 *ONS (Aug 19, 2021). Mortality from leading causes of death by ethnic group, England and Wales: 2012 to 2019 (and related data release). Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/mortalityfromleadingcausesofdeathbyethnicgroupenglandandwales/2012to2019*

261 *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*

262 *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*

263 *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.*

264 *Dixon J, King D, Matosevic T, Clark M and Knapp M, Equity in Palliative Care in the UK. PSSRU, London: London School of Economics/Marie Curie, 2015.*

265 *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.*

266 *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.*

267 *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.*

268 *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*

269 *Office for National Statistics. Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014: Experimental analysis of ethnic differences in life expectancy and cause-specific mortality in England and Wales based on 2011 Census and death registrations. London: ONS, 2021. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014*

270 *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, 2022 (February).*

271 *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.*

272 *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.*

273 *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.*

274 *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*

275 *Ministry of Housing, Communities & Local Government (2019). English indices of deprivation 2019 [online] Accessed at: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019*

276 *ONS. Updating ethnic contrasts in deaths involving the coronavirus (COVID-19), England and Wales: deaths occurring 2 March to 28 July 2020. London: ONS, 16th October 2020. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/updatingethniccontrastsindeathsinvolvingthecoronaviruscovid19englandandwales/deathsoccurring2marchto28july2020#risk-of-death-involving-covid-19-between-ethnic-groups-among-people-living-in-care-homes-in-england*

277 *Mathur R, Rentsch CT, Morton CE, Hulme WJ, Schultze A, et al. Ethnic differences in SARS-CoV-2 infection and COVID-19- related hospitalisation, intensive care unit admission, and death in 17 million adults in England: an observational cohort study using the OpenSAFELY platform. Lancet 2021; 397: 1711–24. https://doi.org/10.1016/S0140-6736(21)00634-6.*

278 *COVID-19 and the mortality risks of different ethnic groups in England | British Politics and Policy at LSE https://blogs.lse.ac.uk/politicsandpolicy/covid19-mortality-risks-ethnic-groups/ COVID deaths by ethnic group.*

279 *Care Quality Commission. CQC publishes data on deaths in care settings broken down by ethnicity. London: Care Quality Commission, 2020 (17 June).*

280 *ONS. Updating ethnic contrasts in deaths involving the coronavirus (COVID-19), England and Wales: deaths occurring 2 March to 28 July 2020. London: ONS, 16th October 2020. Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/updatingethniccontrastsindeathsinvolvingthecoronaviruscovid19englandandwales/deathsoccurring2marchto28july2020#risk-of-death-involving-covid-19-between-ethnic-groups-among-people-living-in-care-homes-in-england*

281 *MacKenna B, Curtis HJ, Morton CE, Inglesby P, Walker AJ, et al. Trends, regional variation, and clinical characteristics of COVID-19 vaccine recipients: a retrospective cohort study in 23.4 million patients using OpenSAFELY. https://doi.org/10.1101/2021.01.25.21250356; medRxiv preprint.*

282 *UK Household Longitudinal Study (see: https://www.understandingsociety.ac.uk/).*

283 *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*

284 *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*

285 *Woolf K, McManus IC, Martin CA, Nellums LB, Guyatte AL, 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 Lancet Regional Health – Europe 2021, https://doi.org/10.1016/j.lanepe.2021.100180*

286 Woolf K, McManus IC, Martin CA, Nellums LB, Guyatte AL, 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 Lancet Regional Health – Europe 2021, https://doi.org/10.1016/j.lanepe.2021.100180

287 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

288 Onyigbuo CC, Alexis-Garsee C and van den Akker O. An exploration of health-seeking behaviours among Nigerian Christians in the UK: towards enhanced health services utilisation. Mental Health, Religion and Culture 2016a; 19(3): 255–267 http://dx.doi.org/10.1080/13674676.2016.1166357

289 Onyigbuo CC, Alexis-Garsee C and van den Akker O. Nigerian clergy and healthcare professionals' perceptions of health-seeking behaviours among Nigerian immigrants in the UK. Mental Health, Religion and Culture 2016b; 19(10): 1043-1055.

290 Onyigbuo CC, Alexis-Garsee C and van den Akker O Predicting attitudes towards seeking medical care among Nigerian immigrants in the UK . Mental Health, Religion and Culture 2018a; 21(8): 810-824.

291 Onyigbuo CC, Alexis-Garsee C and van den Akker O. Nigerian clergy and healthcare professionals' perceptions of health-seeking behaviours among Nigerian immigrants in the UK. Mental Health, Religion and Culture 2016b; 19(10): 1043-1055.

Additional Reading:

NHS Digital (2018). 'Health Survey for England 2017'. NHS Digital website. Available at: https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2017.

Public Health England. Local action on health inequalities: Understanding and reducing ethnic inequalities in health. London: Public Health England, 2018.