CENTRAL AFRICAN

COMMUNITY HEALTH PROFILE 2023

A BOLDER HEALTHIER BIRMINGHAM

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Abbreviations

A&E	Accident & Emergency
AIDS	Acquired Immunodeficiency Syndrome
ASR	Age Standardised Rates
BAME	Black, Asian, and Minority Ethnic
BLACHIR	Birmingham and Lewisham African and Caribbean Review
BMI	Body Mass Index
BSOL ICS	Birmingham and Solihull Integrated Case System
CW Africa	Central and West Africa
CAR	Central African Region
CIA	Central Intelligence Agency
COPD	Chronic Obstructive Pulmonary Disease
COVID-19	SARS-CoV-2
CQC	Care Quality Commission
CVD	Cardiovascular disease
DPT	Diphtheria-tetanus-pertussis
DRC	Democratic Republic of the Congo
ETS	Enhanced Tuberculosis Surveillance
FGM	Female Genital Mutilation
HepB3	Hepatitis B
HESA	Higher Education Statistics Agency
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
IMD	Index of Multiple Deprivation
IoD	Indices of Deprivation
LGBTQ+	Lesbian, gay, bisexual, trans, queer and other sexual orientations and gender identities
LRTI	Lower Respiratory Tract Infections
MBRRACE-UK	Mothers and Babies: Reducing Risk through Adults and Confidential Enquiries across the UK report
MHCLH	Ministry of Housing, Communities and Local Government
MSOA	Middle Super Output Area
NCMP	National Child Measurement Programme
NEET	Not in Education, Employment or Training
NHS	National Health Service
NICE	National Institute for Health and Care Excellence

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OHID	Office for Health Improvement and Disparities
ONS	Office for National Statistics
PHE	Public Health England
SCTAPPG	All-Party Parliamentary Group on Sickle Cell and Thalassaemia
STI	Sexually Transmitted Infection
TB	Tuberculosis
TFR	Total Fertility Rate
UHI	Urban Heat Island
UK	United Kingdom
UKHSA	UK Health Security Agency
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WHF	World Heart Foundation
WHO	World Health Organisation
YLL	Years of Life Lost

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Community Evidence Summaries

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

There are common objectives for each of the evidence summaries, which are:

- To identify and summarise the physical health, mental health, lifestyle behaviour, and wider determinants of health-related issues affecting the specific community 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 2022 to 2030.

- 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.

- To empower communities, by providing them with a summary of health inequalities, which can be used to advocate for change across local systems to improve outcomes.

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Executive Summary

The Central African Community Health Profile identifies and summarises the national and local evidence concerning the health, lifestyle behaviours and wider determinants of health that affect Central African communities. Although the focus of this report was health inequalities among Central African communities in Birmingham, the scarcity of available information on health and wellbeing has resulted in data being used from the UK and internationally where available.

This report covers health topics throughout the life course from maternity to ageing and dying well and includes chronic health conditions such as diabetes and cardiovascular disease. The report also covers protect and detect topics such as screening and vaccinations, as well as other themes such as knowledge and understanding of health issues affecting Central African communities.

Much of the data for examining health outcomes in this profile has been taken from open-source research and health records. It is worth noting that the sample sizes, coverage, and quality for some studies are imperfect. The picture is complex not only between different community groups but also across different conditions. Understanding and knowledge is also limited by a lack of good quality data. This health profile aims to highlight the available health data and the current gaps in our knowledge and understanding.

Central African Geography

Central Africa is a region intersected by the equator, situated around the Congo river (Birmingham, 2023). This Central African Community Health Profile presents data for populations that are resident in Birmingham and/or England that have origins in Angola, Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo (DRC), Republic of the Congo, Equatorial Guinea, Gabon, Rwanda, São Tomé and Príncipe, and Zambia. Although Rwanda and Burundi are not physically situated in Central Africa, they are often included as Central African countries due to their historic connections with the Belgian Congo (Birmingham, 2023).

Central African Communities in the UK

Population size estimates of people from Central African countries in the UK from the census are based on country of birth from the following countries: Angola, Cameroon, Burundi, Congo, The DRC, and Rwanda. Other Central African countries were not available for analysis within the census. In 2021, there were 112,343 people born in a Central African country living in England and Wales (Office for National Statistics (ONS), 2023). The largest migrant group from Central Africa was attributed to people born in the DRC (n=29,439, 26%).

At a regional level, the West Midlands has the fourth largest Central African diaspora in England and Wales (n=10,521), comprising 9.4% of the total Central African communities in the UK (ONS, 2023). In 2021, there were 3,848 Central African born people living in Birmingham. The DRC holds the highest percentage of people living in Birmingham (n=1,382), making up

36% of the Central African born population in Birmingham. Within Birmingham, the Central African born population has the greatest populations in North Central & Dartmouth Circus (n=158), Five Ways North (n=142), Hockley & Jewellery Quarter (n=133) and Winson Green & Gib Heath (n=124) Middle Super Output Areas (MSOAs) (ONS, 2023).

The key inequalities identified within this Central African Community Health Profile are:

Getting the Best Start in Life

- Infant mortality rates were high for babies born of mothers born in Central Africa (8.3 deaths per 1,000 live births). This compared to 3.6 per 1,000 live births for women born in the UK (Public Health England, 2013).

- There is no data on childhood immunisation for Central African children in the UK. International data suggests that uptake of measles, HepB3 and DPT is varied across Central Africa; for example, measles uptake in 2021 ranged from 36% in Angola to 90% in Zambia (World Health Organisation (WHO) cited by The World Bank, 2023).

- There is no data on childhood tooth decay among Central African children in the UK. International data suggests that prevalence of untreated caries in 2019 was higher among children aged 1 to 9 in Central Africa (ranging from 36% in Equatorial Guinea to 42% in Burundi) than in the UK (20%) (WHO, 2022a).

Mental Wellness and Balance

- There is no data on drug use among Central Africans in the UK. In 2020, people aged 15 to 64 in West and Central Africa had higher use of cannabis (9.7%) and opioids (2.4%) compared to global averages (3.8% and 1.2% respectively) (UN, 2022; Reuters, 2022).

- Rates of domestic violence were highest amongst women from Equatorial Guinea (44%), DRC (37%) and Cameroon (33%). All Central African countries had higher reported rates compared with the United Kingdom (6.0%) (United Nations (UN) Statistics Division cited by Index Mundi, 2023).

- According to The World Bank data (2023), 1.4% of women from Cameroon in 2004 had experienced FGM, 21.6% in the Central African Republic, and 34.1% of women had from Chad in 2019.

Healthy and Affordable Food

- There is no data for eating habits among Central Africans in the UK. However, international data from 2022 showed high consumption of red meat (181% of target intake), and low consumption of fruit (34% of target intake), vegetables (46% of target intake) and legumes (25% target intake) among adults aged 20+ in Middle Africa (Global Nutrition Report, 2023).

Living, Working and Learning Well

- The average percentage of those not in education, employment, or training in all Central African countries is 22%, which is higher than the average in England and Wales (12%) (Statista, 2020).

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- A higher percentage of Central African born people in England and Wales were economically inactive and long term sick or disabled (13%) than the England and Wales average (11%) (ONS, 2023).

- The top 10 most populated Birmingham MSOAs by Central African born people are all in the top 20% most deprived neighbourhoods nationally (Ministry of Housing, Communities and Local Government (MHCLG, 2019).

- A higher percentage of Central African born people live in an overcrowded household (30%), compared with the England and Wales average (6.5%) (ONS, 2023).

- Rates of hypertension-related and coronary heart disease mortality were higher within Central African populations compared with the UK average (WHO, cited by World Life Expectancy, 2020).

Protect and Detect

- The prevalence of human immunodeficiency virus (HIV) was estimated as higher in all Central African countries, compared with the UK. According to UNAIDS data, in 2021, Zambia had the highest prevalence of HIV at 6.8% of their population, followed by Equatorial Guinea (4.1%), and Gabon (2.0%) (UNAIDS, 2023).

- There were higher incidences of diseases such as tuberculosis (TB) (from 56 to 540 per 100,000), hepatitis, typhoid, malaria, and Mpox in many Central African countries (Office for Health Improvement and Disparities (OHID), 2023a).

- There was a lack of cancer screening across Central Africa. Of the Central African countries included in this profile, only Rwanda and Zambia had an existing cervical cancer screening program in 2021 (WHO, 2022c).

Ageing Well and Dying Well

- There is no data for live expectancy of Central Africans in the UK. International data from 2019 showed that life expectancy at birth varied from 53 (Central African Republic) to 73 (Cameroon). This is compared with 81 in the UK (WHO, nd).

- Common leading causes of mortality in Central African countries included neonatal conditions, lower respiratory infections, HIV or acquired immunodeficiency syndrome (AIDS), and TB (WHO, Nd).

Contributing to a Green and Sustainable Future

- Wards with low levels of environmental justice have the largest populations of Central Africans in Birmingham, including Ladywood (0.33), Newtown (0.41), Soho & Jewellery Quarter (0.36), and Nechells (0.42) (Birmingham City Council, 2022a).

- Approximately 18% of the Central African born population live in the 15 most polluted MSOAs in Birmingham, according to MHCLG data from 2020, compared with 5.4% of the White British population (MHCLG, 2019).

Closing the Gaps

- Some ethnic groups saw greater incidence and prevalence of health conditions compared with other ethnic groups. It is

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important to consider the differences in ethnicity between Central Africans.

- Research on Central African communities have suggested that intersectionality between country of birth and other aspects of identity, such as gender and age are associated with poorer health outcomes.
- Much of the research on health and wellbeing of Central Africans comes from international studies and may not accurately reflect the health of Central Africans in the UK. More research is needed to further understand the key inequalities.

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Methodology

An exploratory search was undertaken between December 2022 and February 2023 by a team at Birmingham City University. Keyword search terms and subject headings relevant to the themes were identified and informed the search strategy (see Appendix 1). Data sources were searched from January 2012 to January 2023. All references used within this profile are outlined in the References section.

As an initial exploratory search, the following avenues were examined:

a. National data sources

NOMIS data:

Data has been extracted by ethnicity and country of birth from the 2011 and 2021 census rounds. At the time of writing this health profile, census 2021 data was still being released. Datasets with ethnic breakdown for specific outcomes was not available in the same way as census 2011 data but is likely to become available in the near future. Birmingham City Council will include relevant data to this profile population from census 2021 data in an updated future visual document. Census data for this Community Health Profile therefore focuses on country of birth data from relevant Central African countries.

National Public Health (Public Health Profiles) and other government data sources (ons.gov.uk and gov.uk):

Data has been extracted where relevant Central African community-level information was available.

National voluntary and community sector reports:

These have been identified through Google Scholar and national websites, specifically where relevant Central African community-level data was available, such as: WHO, UN, the Joseph Rowntree Foundation, The Race and Health Observatory and Healthwatch.

b. Academic Database Search

In addition, the search strategy was applied to Web of Science, PubMed, EBSCO and Cochrane for peer reviewed literature and websites detailing public, private, academic and third-sector reports including UKHSA, PHE Fingertips, OHID, NHS QOF, West Midlands Public Health Observatory, Age UK, Alzheimer's Research UK, The British Heart Foundation, The British Lung Foundation, Cancer Research UK, Diabetes UK, the Joseph Rowntree Foundation, Mind, Sport England, and the National Drug Treatment Monitoring System. References and forward citations of relevant articles and reports were also searched to identify information for Central African communities for this profile. All searches contained the keywords "Central Africa" as well as words that were specific to the specific topic theme. Examples of this are included in this Search Strategy (Appendix 1).

c. Grey Literature

Where information sources had not been identified through a or b, further searching through Google and Google Scholar using topic specific search terms were carried out. Resources that were relevant

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to the UK were included, i.e., data and information stemming from local or national-level reports and/or surveys.

d. Data consolidation and analysis

Findings from international and national systematic reviews and large-scale epidemiological and qualitative research studies were also considered for inclusion. International research findings were included if they were deemed to be comparable or relevant to the national population.

In addition, some "snowballing", a technique where additional relevant research are identified from the reference list and citations of the initial search or published article was also applied. Additional papers were identified from reference lists using this approach, where these additional resources enhanced the knowledge base. Generally, searches were limited to literature from last 10 years; information from a further 5 to 10 years prior was included if the results were too limited.

Results retrieved from the initial searches were reviewed by the author against the search strategy (Appendix 1). The team used a 'concept table' to frame the theme and identify keywords for searches. The articles included in this document were identified, analysed, and cross referenced with other themes throughout the profile. All resources utilised have also been reviewed against the inclusion and exclusion criteria (Appendix 2).

e. Caveats and Limitations

Countries included in the Central African region (CAR) vary across organisations which means data is not always comparable across different data sources. The current health profile includes 12 countries which cover the CAR are in line with Birmingham City Council's definition of Central African countries (Angola, Burundi, Cameroon, Central African Republic, Chad, Republic of Congo, DRC, Equatorial Guinea, Gabon, Rwanda, São Tomé and Príncipe, and Zambia). The WHO includes 10 countries in the CAR (Angola, Burundi, Cameroon, Central African Republic, Chad, Republic of Congo, DRC, Equatorial Guinea, Gabon, and São Tomé and Príncipe) with Rwanda and Zambia included in the Eastern and Southern African region (WHO, 2022).

For 2021 census data, the profile has identified the Central African community through country of birth. This approach is more likely to capture more data than using data by national identity and captures the variety of different cultures and ethnic groups that migrate from Central Africa. In addition, data from the 2021 census included in the report reflects the data that was available from the dataset at that time and may have been updated by the ONS.

Where possible, the 190-category dataset for country of birth has been selected. This dataset includes Angola, Cameroon, Burundi, Congo, The DRC, Rwanda, and Zambia. The dataset does not include Central African Republic, Chad, Equatorial Guinea, Gabon and São Tomé and Príncipe; however, it is expected that people born in these countries will be picked up in the category Other Central and Western African.

It is worth noting that there is a lack of available data for Central Africans living in the UK for a wide range of health outcomes. At times, this profile has used findings from Central African countries

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and caution must be applied to this due to the difference in healthcare provisions when comparing Central Africa to the UK. However, international data may provide some insight into the health and wellbeing of recent migrants to the UK from Central African countries.

A summary of the information which utilised UK based data on Central Africans include:

- Demographic data (ONS 2023)
- Total Fertility Rate (Aspinall and Chinouya, 2016)
- Live births by country of birth (ONS, 2022)
- Higher education (HESA, 2022)
- Qualifications (ONS, 2023)
- Employment and economic activity (ONS, 2023)
- Deprivation ((MHCLG, 2019 and ONS, 2023).
- Housing (ONS, 2023)
- General health and disability (ONS, 2023)
- Sexual health behaviours (Bourne, Reid, and Weatherburn, 2014)
- Environmental justice (Birmingham City Council, 2022a and ONS, 2023)
- Air pollution (MHCLG, 2019) and ONS, 2023)

f. Statistics

This report draws on evidence from a variety of research studies with different methodologies and results. Data throughout this report have been presented to two significant figures where possible; proportions may not add up to 100% due to rounding.

Below, is a brief overview of some key statistical terms to aid in interpretation of the findings.

In this report, "n" is used to represent the numerator of a percentage (e.g., the number of people with the event of interest) and "N" is used to represent the denominator (e.g., the population from which the numerator was drawn).

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1. Introduction

1.1 Overview

1.1.1 Defining the Central African Population

Central Africa is a region intersected by the equator, situated around the Congo river (Birmingham, 2023). This Central African Community Health Profile presents data for populations that are resident in Birmingham and/or England that have origins in Angola, Burundi, Cameroon, Central African Republic, Chad, DRC, Republic of the Congo, Equatorial Guinea, Gabon, Rwanda, São Tomé and Príncipe, and Zambia (**Figure 1**). Although Rwanda and Burundi are not physically situated in Central Africa, they are often included as Central African countries due to their historic connections with the Belgian Congo (Birmingham, 2023).

Figure 1: Map of Central Africa

Source: Birmingham City Council, via MapChart (2023)

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1.1.2 History

The earliest habitants of Central African countries were Dravidians, Egyptians, Sumerians, Niger-Kordofanian-Mande, and Elamite speakers, who were involved in the establishment of community settlements (New World Encyclopaedia, n.d.). Central Africa advanced with trading in copper, salt, and textiles (Birmingham, 2023). Copper was appreciated for its colour and shine for personal jewellery, as well as its role in ornamenting personal belongings. Textiles weaving was important to kings and princes, but also to establish social wealth. Being the preferred item for social payments, cloth would be used within bridal payments. Elderly men would typically control the cloth, meaning that younger men could not get married and set up a household (New World Encyclopaedia, n.d.).

In the 15th Century, Central Africa came into contact with the non-African world, a time where European immigrants bought mainland slaves to work the estates. The first slave trade was set-up by Portuguese colonies at São Tomé (Birmingham, 2023; New World Encyclopaedia, n.d.). These slaves were either taken to the Gold Coast in West Africa, Europe for domestic service and farm labour, or working on the island. Over the next few centuries, the slave trade in Central Africa expanded.

Colonial rule in Central African largely ended in the 1960s (New World Encyclopaedia, n.d.). Despite this, some studies have highlighted the multigeneration effects of colonial rule on health and wellbeing. For example, a 2021 study by Lowes and Montero suggested that Central African descendants of French colonial rule have lower trust in modern medicine and reduced vaccination rates. The report outlined that introductions to western medicine between 1921 and 1956 were often dangerous. The main example highlighted in the report is evidence of locals being injected with medications by French colonial government officials, often with severe or fatal side effects. Memory of such campaigns is thought to be carried into subsequent generations.

Central African countries have also received various forms of foreign aid throughout most of the postcolonial period to help countries meet people's basic needs in health, education, water, and sanitation (Phillips, 2013). Concerns have been reported that foreign aid can hinder not help development as Central Africa has not sufficiently reduced its poverty rates despite receiving high levels of international aid. It is considered that this has possibly created dependency on foreign aid, with it being used as a political tool and encouraging conflict (Lyons, 2014).

1.2 Migration Patterns

1.2.1 Global Migration Patterns

Central African countries have experienced internal conflict and displacement resulting in many countries being both a source and host country for refugees. Nine out of 12 Central African countries experienced negative net migration within Central Africa (**Table 1**). A negative net migration rate is when more people leave a country than enter the same area. A positive net migration rate is when the number of people entering a country is larger than the number of people leaving the country in the same period. Of the 12 countries included in this health profile, in 2023, three countries had a net

positive migration rate: Equatorial Guinea, Burundi and Gabon. Equatorial Guinea had the highest positive net migration rate.

Table 1: Net Migration Rate of Central African Countries (per 1,000 population), 2023

Country or Area	Year	Net Migration Rate
Equatorial Guinea	2023	2.335
Gabon	2023	0.41
Burundi	2023	0.151
Angola	2023	-0.027
Chad	2023	-0.109
DRC	2023	-0.147
Congo	2023	-0.164
Cameroon	2023	-0.168
Zambia	2023	-0.243
Rwanda	2023	-0.638
Central African Republic	2023	-2.559
São Tomé and Príncipe	2023	-2.584

Source: UN Department of Economic and Social Affairs (2022)

Thousands of Equatorial Guineans fled across the border to Gabon in the 1970s to escape dictatorship, however, now Equatorial Guinea attracts many into the country due to its employment opportunities (CIA, 2023h). The current (2023) net migration rate in Equatorial Guinea was reported as being 2.335 per 1000 people which means that for every 1000 people in Equatorial Guinea, two people will have immigrated to the country in one year (UN Department of Economic and Social Affairs, 2022). Burundi has hosted thousands of refugees from the DRC and Rwanda, and Gabon has been popular with migrants from neighbouring countries because of the discovery of oil, as well as the country's political stability and timber, mineral, and natural gas resources (CIA, 2023d; CIA, 2023i).

São Tomé and Príncipe is the second smallest and second-least populous African country (after the Seychelles) (CIA, 2023k). As an island, it does not border any other countries and has the lowest 2023 net migration rate in Central Africa of -2.58; for every 1000 people in the country, two to three people per 1000 people every year will leave the country year (UN Department of Economic and Social Affairs, 2022).

Chad has the largest land area of Africa's 16 landlocked countries. It borders Cameroon, Central African Republic, Libya, Niger, Nigeria, and Sudan. Chad was relatively stable in 2012 in comparison to other states in the region, however, fighting between government forces and opposition groups and inter-communal violence has left nearly 60,000 of its citizens displaced in the eastern part of the country. Thousands of new refugees fled to Chad in 2013 to escape worsening violence in the Darfur region of Sudan. Chad hosts more than 320,000 refugees from Sudan and more than 75,000 from the Central African Republic (CIA, 2023g).

Thousands of refugees have come to the DRC from neighbouring countries of Rwanda, the Central African Republic, South Sudan, and Burundi. Due to ongoing violence between rebel groups and Congolese armed forces, more than 850,000 Congolese refugees and asylum seekers were hosted by neighbouring countries as of December 2021 and an estimated 5.5 million Congolese were internally displaced as of July 2022 (CIA, 2023b). In 2023, the DRC

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had a net migration rate of -0.151 which indicates more people leave the country than immigrate into the country.

Cameroon borders the Central African Republic, Chad, Republic of the Congo, Equatorial Guinea, Gabon, and Nigeria. Cameroonians have migrated to Gabon, Nigeria, South Africa, other parts of Africa, with migration primarily driven by unemployment and poverty. Cameroon's limited resources make it dependent on UN support to host more than 490,000 refugees and asylum seekers. These refugees and asylum seekers are mainly from the Central African Republic and Nigeria (CIA, 2023e).

Rwanda is a landlocked country bordering Burundi, the DRC, Tanzania, and Uganda. The United Nations High Commissioner for Refugees (UNHCR) recommended that countries no longer grant refugee status to Rwandans as of 2013. The UNHCR's decision is controversial because many Rwandan refugees still fear persecution if they return home. Rwandan refugees can still seek an exemption, but host countries are anxious to send the refugees back to Rwanda and are likely to avoid options that enable them to stay. Rwanda itself hosts approximately 125,000 refugees as of 2022. Most refugees in Rwanda are fleeing conflict in neighbouring Burundi and the DRC (CIA, 2023j).

The Central African Republic borders Cameroon, Chad, DRC, Congo, South Sudan and Sudan. Poverty, human rights violations, unemployment, poor infrastructure, and a lack of security and stability have led to forced displacement internally and externally. Due to Central African Republic's political coup which began in December 2012, approximately 600,000 people fled to Chad, the DRC, and other neighbouring countries, while another estimated

600,000 were displaced internally as of October 2019. The UN advised countries to refrain from repatriating CAR refugees amid the ongoing political situation (CIA, 2023f).

1.2.2 Migration to the UK

Within the ONS (2023) create a custom dataset, there are only 7 Central African countries (including Other Central and Western Africa) which appear in the 190-country category for country of birth. These countries are Angola, Cameroon, Burundi, Congo, The DRC, and Rwanda. Within analysis of migration to the UK, other Central and Western African countries were included as the data will likely include people born in the Central African Republic, Chad, Equatorial Guinea, Gabon, São Tomé and Príncipe, and Zambia.

Census data shows that there were 112,343 people born in these countries living in England and Wales in the year 2021. The largest migrant group from Central Africa is attributed to people born in the DRC (n=29,439, 26%) (**Table 2**). This was followed by Zambia (n=26,254), Angola (n=19,717), and Cameroon (n=14,614). The smallest percentage was from people from the Republic of Congo (n=3,308, 2.9% of the total Central African population in the UK).

Table 2: Resident population by country of birth from Central and Western African countries: England and Wales, 2021

Country of birth	Population (count)	Central African UK population (%)
DRC	29,439	26
Zambia	26,254	23
Angola	19,717	18
Cameroon	14,614	13
Other Central and Western Africa	10,067	9.0
Burundi	4,612	4.1
Rwanda	4,332	3.9
Congo	3,308	2.9
Total	**112,343**	-

Source: ONS (2023)

When looking at year of arrival, the largest percentage of Central African-born people arrived to England and Wales between the years 2001 to 2010 (27%) (**Figure 2**)[a]. 37% arrived between the years 2011 to 2021, 22% did so from 1991 to 2000, and 15% arrived before 1991.

Figure 2: Year of arrival among people born in Central African countries: England and Wales, 2021
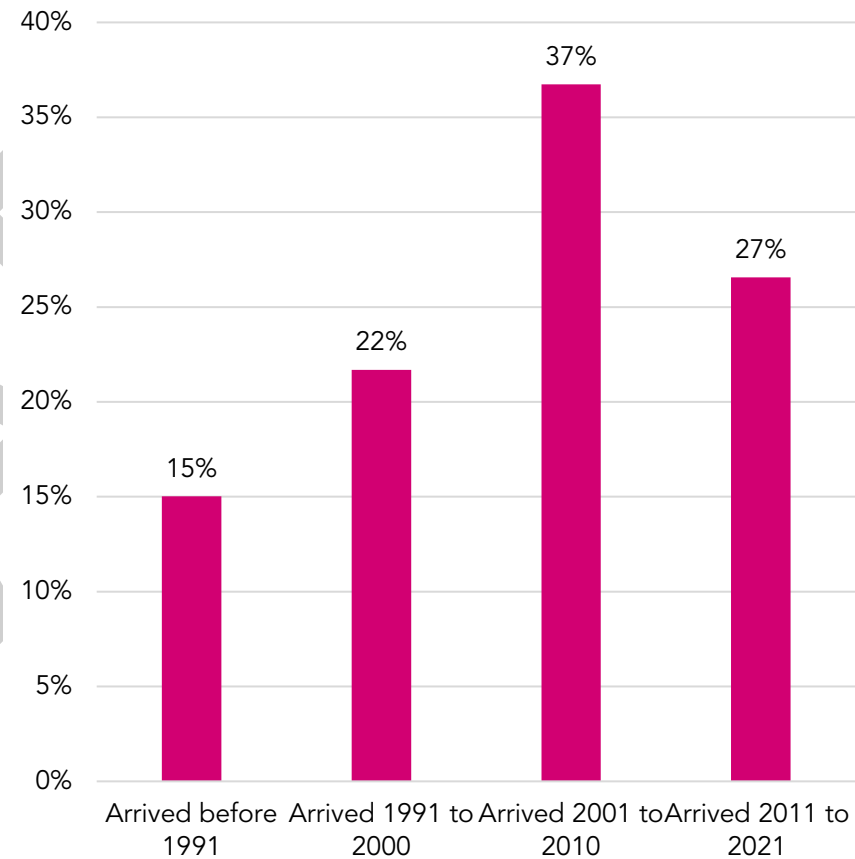
Source: ONS (2023)

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[a] See **Appendix 3.1** for full data table

Figure 3[b] shows differences in year of arrival between differing countries of birth. Most notably, a high percentage of people from Other Central and Western African countries (56%) arrived to England and Wales between 2011 to 2021 compared with other countries. Conversely, a high proportion of people born in Rwanda arrived between 1991 to 2000 (39%) compared with other countries of birth. A high proportion of people born in Zambia arrived before 1991 (45%) which is likely due to Zambia being a Commonwealth member state and therefore there being more accessible freedom of movement into the UK.

Figure 3: Year of arrival by country of birth: England and Wales, 2021

Arrived before 1991   Arrived 1991 to 2000
Arrived 2001 to 2010   Arrived 2011 to 2021
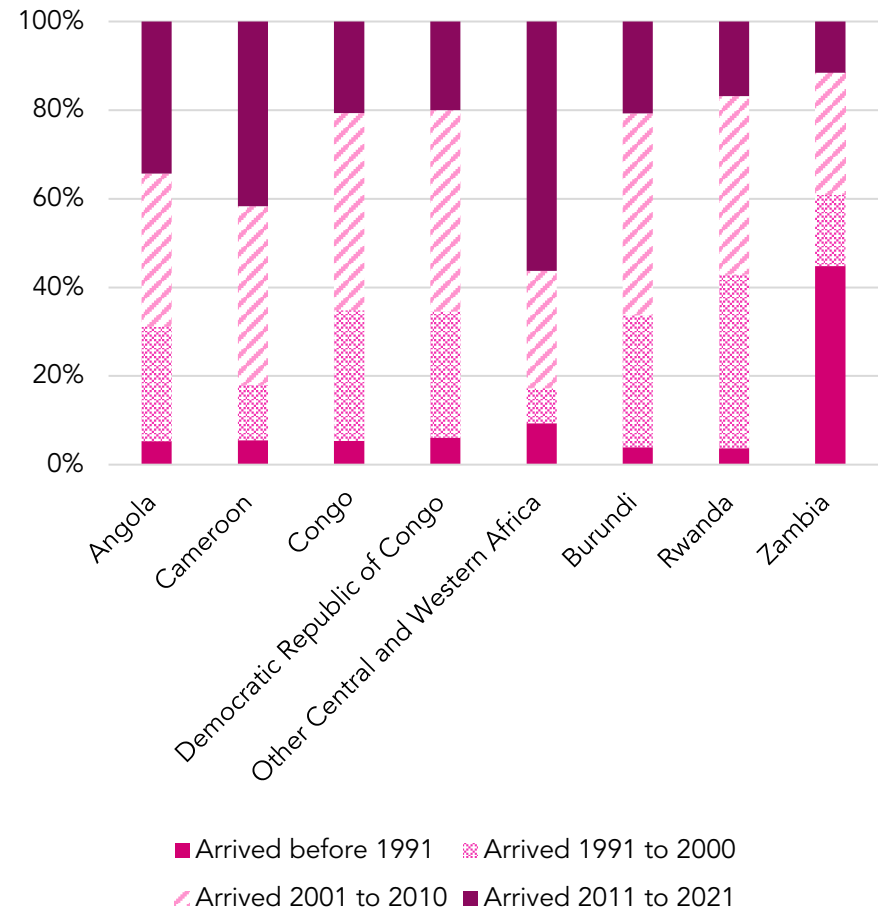
Source: ONS (2023)

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[b] See **Appendix 3.2** for full data table

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The 2020 to 2021 Annual Population Survey showed migrant populations that were not included within the 2021 census (**Table 3**). It was estimated that there are 4,000 people living in England from both Equatorial Guinea and São Tomé and Príncipe, and 2,000 from the Central African Republic. Some of these populations would have been included in the Other Central and Western African category included in the 2021 census.

Table 3: Estimates of the Central African populations not captured in the 2021 census: England, 2019 to 2020

Central African Country of Origin	Population Resident in England
Central African Republic	2,000
Equatorial Guinea	4,000
São Tomé and Príncipe	4,000

Source: ONS (2021a)

Table 4 shows the percentage and total population living in regions of England and Wales by country of birth. In the 2021 census, London housed the highest percentage of Central African born people (39%), followed by North West of England (12%), South East (10%) and the West Midlands (9.4%).

Table 4: Population by country of birth and region: England and Wales, 2021

Region	Total population (count)	Percentage of Central African population
London	43,580	39
North West	13,644	12
South East	11,686	10
West Midlands	10,521	9.4
East of England	8,388	7.5
Yorkshire and The Humber	8,258	7.4
East Midlands	6,912	6.2
South West	4,565	4.1
North East	2,665	2.4
Wales	2,127	1.9

Source: ONS (2023)

1.2.3   Migration to the West Midlands

According to the 2021 census, the West Midlands is home to 10,521 people born in Central Africa, making up 0.36% of the total population of the West Midlands. This was a total population increase of 27% compared with the 2011 census (**Table 5**). The most notable percentage increases were seen in the Other Central and West African category (75%) and people born in Cameroon (48%). A decrease in population size was seen in people from Congo (89% decrease from 2011 to 2021).

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Table 5: Resident population by country of birth: West Midlands, 2011 and 2021

Country of birth	2011 Population	2021 Population	Population change (%)
Angola	924	1,412 (13%)	+35
Cameroon	1,123	2,167 (21%)	+48
Congo	773	410 (3.9%)	-89
DRC	1,919	2,814 (27%)	+32
Other Central and Western Africa	217	860 (8.2%)	+75
Burundi	734	733 (7.0%)	-0.1
Rwanda	403	413 (3.9%)	+2.4
Zambia	1,577	1,712 (16%)	+7.9
Total	**7,670**	**10,521**	**+27**

Note: % shows % of total Central African population in the West Midlands

Source: ONS (2023)

1.2.4 Migration to Birmingham

According to the 2021 census, there were 3,848 people born in Central African countries living in Birmingham. The DRC holds the highest percentage of people living in Birmingham (35.9%), with the lowest being from Rwanda (2.9%) (**Table 6**).

Table 6: Resident population by country of birth: Birmingham, 2021

Country of birth	Population (count)	Central African population (%)
Angola	650	17
Cameroon	660	17
Congo	208	5.4
DRC	1,382	36
Other Central and Western Africa	288	7.5
Burundi	157	4.1
Rwanda	113	2.9
Zambia	390	10
Total	**3,848**	-

Note: % shows % of total Central African population in Birmingham

Source: ONS (2023)

Table 7 shows the top 10 most populated middle-layer super output areas (MSOAs) for Central African born populations in Birmingham from the census 2021. The MSOA with the highest total of Central African born people was North Central & Dartmouth Circus with 158 people living there (4.1% of the Central African population of Birmingham). The next most populous MSOAs were Five Ways North and Hockley & Jewellery Quarter.

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Table 7: Middle-layer super output areas (MSOAs) with the largest Central African born populations, Birmingham, 2021

MSOA	Population (count)	Population (%)
North Central & Dartmouth Circus	158	4.1
Five Ways North	142	3.7
Hockley & Jewellery Quarter	133	3.5
Winson Green & Gib Heath	124	3.2
Quinton East	112	2.9
Gravelly Hill & South Erdington	93	2.4
Nechells	86	2.2
Birches Green & Bromford East	80	2.1
Birchfield West	78	2.0
Ladywood - Summer Hill	78	2.0

Note: % shows % of total Central African population in Birmingham

Source: ONS (2023)

1.3 Language

Across Central Africa, a variety of languages are spoken which reflect the colonial history of the country and regional traditional tribes and ethnic groups. Colonial languages include English which is the official language of Burundi, Cameroon, Rwanda, and Zambia.

French is the official language in nine out of 12 Central African countries (DRC, Congo, Burundi, Cameroon, CAR, Chad, Gabon, Equatorial Guinea, and Rwanda). Although not an official language, English and French are also spoken in São Tomé and Príncipe (CIA, 2023a-l).

Official languages are not always the main language spoken with a large percentage of people speaking regional languages. Regional languages differ across and within countries:

DRC regional languages include Lingala (a mixture of languages used to communicate between people whose native languages are different), Kingwana (a dialect of Kiswahili or Swahili), Kikongo, and Tshiluba.

Congo regional languages include French Lingala and Monokutuba along with many other local languages and dialects (of which Kikongo is the most widespread).

Burundi has three official languages which are French, English and the Indigenous language of Kirundi. However, very few people speak French and English with the majority of people speaking Kirundi followed by a smaller proportion speaking Swahili (Sen Nag, 2018a).

Angola's main languages are Portuguese (official language), Bantu and Umbundu. Other spoken African languages include Kikongo, Kimbundu, Chokwe, Nhaneca, Nganguela, Fiote, Kwanhama, Muhumbi, and Luvale.

Central African Republic's regional languages include Sangho (national language) and tribal languages.

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Cameroon has 24 major regional African language groups.

Chad has more than 120 different languages and dialects although the official languages are French, Arabic and Sara (in south).

Equatorial Guinea is the only independent African country where Spanish is an official (and widely spoken) language along with Portuguese and French. Regional languages include Fang, Bubi, and Portuguese-based Creoles.

In **Gabon** over 80% of the residents can converse in French. Fang language is the native language of over 32% of the population. Other regional languages include Myene, Nzebi, Bapounou/Eschira, Bandjabi. All of the over 40 Bantu tribes living in Gabon have their unique native language and cultures (Sen Nag, 2019a).

In **Rwanda**, Kinyarwanda is the official, universal Bantu dialect spoken by the majority of people.

São Tomé and Príncipe has four national languages which are Portuguese, Forro, Angolar and Principense. More regional languages include Cabo Verdian and Lunguie.

Zambia has English as the only official national language, but this is not widely spoken outside of official or professional settings. In addition to English, there are seven official regional languages: Bemba, Nyanja, Tonga, Lozi, Lunda, Kaonde and Luvale. Other languages spoken in Zambia include Chewa, Nsenga, Tumbuka, Lala, Lamba, Mambwe, Namwanga, Lenje and Bisa (CIA, 2023f).

Table 8 shows the most common first or preferred language for people born in Central African countries, living in England and Wales. In 2021, the most common language was English (62%), followed by Portuguese (15%), French (12%), and African languages (8.2%).

Table 8: Most common first or preferred languages among people born in Central African countries: England and Wales, 2021

Language	Percentage of population
English (English or Welsh if in Wales)	62
Portuguese	15
French	12
African languages	8.2
Spanish	1.0
South Asian language: Gujarati	0.8
Other European language (EU): Any other European languages	0.7
Arabic	0.4
Any other languages (including sign and supported languages)	0.1
Other European language (EU): Polish	0.1
South Asian language: Any other South Asian languages	0.1
South Asian language: Panjabi	0.1
West or Central Asian languages	0.1

Note: languages that were rounded to 0.0% were removed from the table. Does not apply was removed from this dataset

Source: ONS (2023)

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When looking at English proficiency of people born in Central African countries, (**Figure 4**)ᶜ, 62% (n=69,787) speak English as a main language, and an additional 30% have English as an additional language and speak it well or very well. Additionally, 6.8% do not speak English well and 0.9% do not speak English at all.

This means that around 7.7% of Central African born people are not proficient in English, which may mean that health information in English may not be understandable in almost one tenth of the Central African born population living in England and Wales.

When excluding responses where English was cited as a main language (n=42,441), 18% (n=956) of the Central African born population could not speak English well, and 2% (n=7683) could not speak English at all. This is similar to England and Wales averages for people who did not report English as a main language; 17% could not speak English well, and 3% could not speak English at all.

There is also large variation in English proficiency by country of birth. English as a main language varies from 95% for people born in Zambia to 30% for people born in 'Other Central and Western Africa'.

Figure 4: English proficiency amongst people born in Central African countries, England and Wales, Census 2021

- ■ English main language
- ■ English not main language but can speak very well
- ▦ English not main language but can speak well
- ▨ English not main language cannot speak well
- ■ English not main language cannot speak English
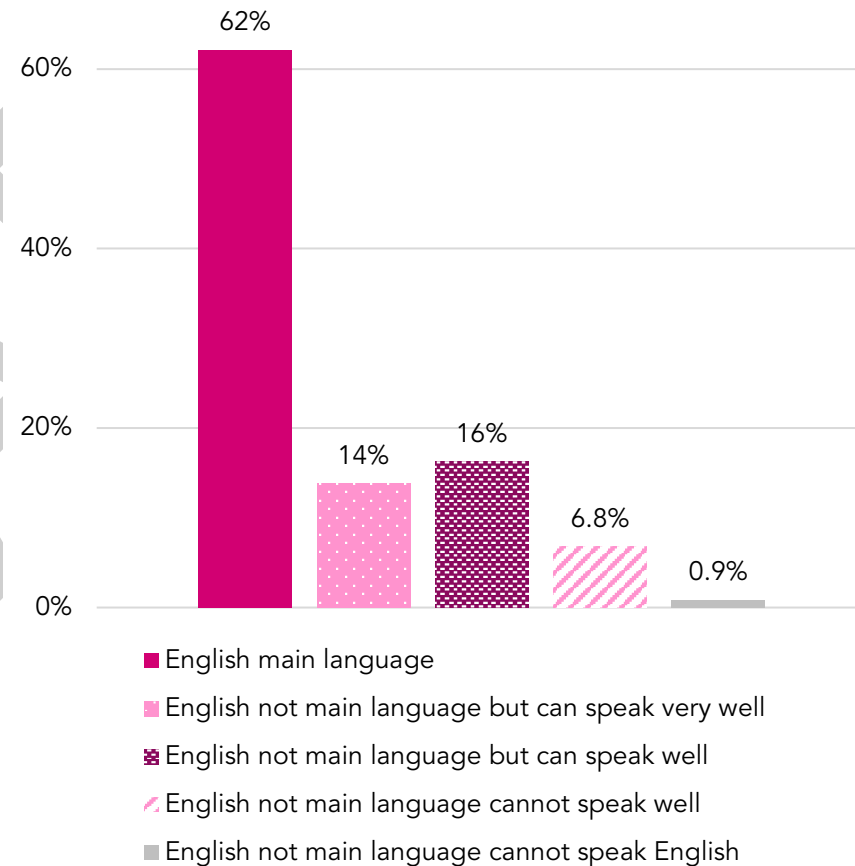
Source: ONS (2023)

ᶜ See **Appendix 3.3** for full data table

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1.4   Religion

Christianity is the predominant religion in Central Africa (DRC, Congo, Angola, Burundi, Cameroon, CAR, Equatorial Guinea, Gabon, Rwanda, São Tomé and Príncipe and Zambia) followed by Islam (Chad); both faiths are practised in many of these countries. Other religions include Kimbanguist (DRC, Congo) and Animist (Cameroon, CAR, Chad, Equatorial Guinea, Gabon) (CIA, 2023a-l).

The most followed religion or faith in England and Wales by Central African born people was Christianity (78%), followed by no religion (9.3%), and Islam (5.4%) (**Table 9**).

Table 9: Religion and/or faith by country of birth (Central African countries grouped response): England and Wales, 2021

Religion or belief	Percentage
Christianity	78
No religion	9.3
Islam	5.4
Not answered	4.6
Hinduism	2.1
Other religion	0.6
Buddhism	0.2
Sikhism	0.1
Jewish	0.1

Source: ONS (2023)

When looking at differing beliefs between countries, Christianity is followed more in some countries than others (**Figure 5**)[d]. The highest percentage that followed Christianity are people born in The DRC (90%), with the lowest from Burundi (67%). Other notable followers included Muslims from Burundi (22%), and Other Central and Western Africa (18%). Zambians had the highest percentage of people with no religion (17%).

Figure 5: Religion and/or faith by country of birth: England and Wales, 2021

Source: ONS (2023)

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[d] See **Appendix 3.4** for full data table
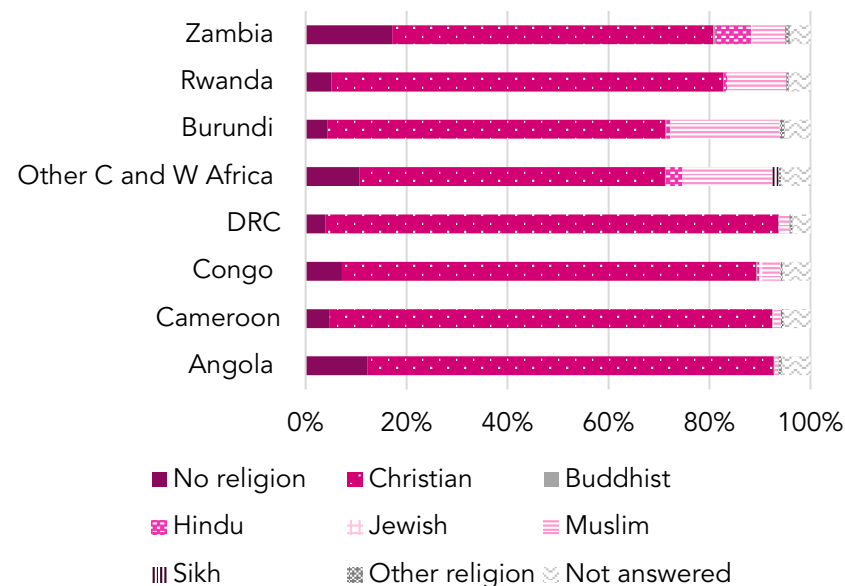
1.5   Demographics

1.5.1   Ethnicity

The diversity of ethnic groups in Central African countries is not fully captured in UK data. For example, the DRC comprises more than 200 African ethnic groups of which the majority are Bantu; and in Congo include Kongo, Teke, Mbochi, Sangha, Mbere, Punu and Pygmy. Ethnic groups in Angola include Ovimbundu, Kimbundu and Bakongo. Burundi and Rwanda have three major ethnic groups, the Hutu, Tutsi, and Twa (Pygmy). Cameroon has about 250 ethnic groups, in Chad there are approximately 180 ethnic groups, and more than 70 ethnic groups reside in Zambia. In Gabon, approximately 40 ethnic groups are represented, the largest of which is the Fang, a group that covers the northern third of Gabon and expands north into Equatorial Guinea and Cameroon. The largest ethnic group in Equatorial Guinea is Fang followed by Bubi, Mdowe and Annobon (CIA, 2023a-l).

Central African Republic has several ethnic groups including Baya, Banda, Mandjia, Sara, M'Baka-Bantu, and Arab-Fulani. São Tomé and Príncipe has six main ethnic groups which descended from various ethnic groups that migrated to the islands since 1485. These are Mestico, Angolares (descendants of enslaved Angolan), Forros (descendants of enslaved people released from slavery), Servicais (contract laborers from Angola, Mozambique, and Cabo Verde), Tongas (children of servicais born on the islands), Europeans (primarily Portuguese), and Asians (mostly of Chinese ethnicity) (CIA, 2023f).

When looking at the ethnicity of people born in Central African countries in England and Wales, the 2021 census showed that the highest percentage are people of Black African ethnicity (63%). Mixed White and Black African made up 21% of the population, while Other White was 6.6% of the population (**Table 10**).

Table 10: Ethnicity of Central African born populations: England and Wales, 2021

Ethnic group	Percentage
Black African	63
Mixed White and Black African	21
Other White	6.6
Other Mixed or Multiple ethnic groups	3.0
Other Black	2.6
Any other ethnic group	2.2
White English, Welsh, Scottish, Northern Irish, or British	0.9
Mixed White and Asian	0.2
Mixed White and Black Caribbean	0.2
Arab	0.1
White Roma	0.1
Indian	0.1
Black Caribbean	0.1

Source: ONS (2023)

Note: Does not apply was removed from the dataset. Percentages rounded to 0.0% were not included within this table. 190 category dataset for country of birth

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When investigating the ethnicity of people born in specific Central African countries, most have a majority Black African population similar to as seen in total Central African countries. The exception to this is people born in Zambia, where 38% identified as Black African, 35% as White English, Welsh, Scottish, Northern Irish, or British, and 14% identified as Indian. This is likely due to Zambia being in the Commonwealth, where communities may have migrated from other Commonwealth member states to and from Zambia.

As there are a large percentage of the population (around one third) that are not Black African, there has been reluctance to use Black African ethnicity data as a proxy for this profile. If there is a lack of information available for the Central African community living in the UK, host country data has been used to infer the health inequalities that Central Africans face within Central African countries.

1.5.2   Age Profile

The age profile of all Central African countries followed a similar demographic trend of large young populations with more than half the population aged 24 and under, and much smaller ageing populations of 55 years and above which decreases further in the 64 years and above age range (for more information *see section 2.7.1*).

Compared with England and Wales averages, there were less Central African born people aged 15 and under (3.1% versus 19%) (**Figure 6**)[e]. The Central African born population is higher in age groups 25 to 34 (18% versus 14%) and 35 to 49 (37% versus 19%).

England and Wales had a much larger population in the 65 years and over category (19% compared with 5.6%).

Figure 6: Population pyramid, Central African-born populations, England and Wales, 2021
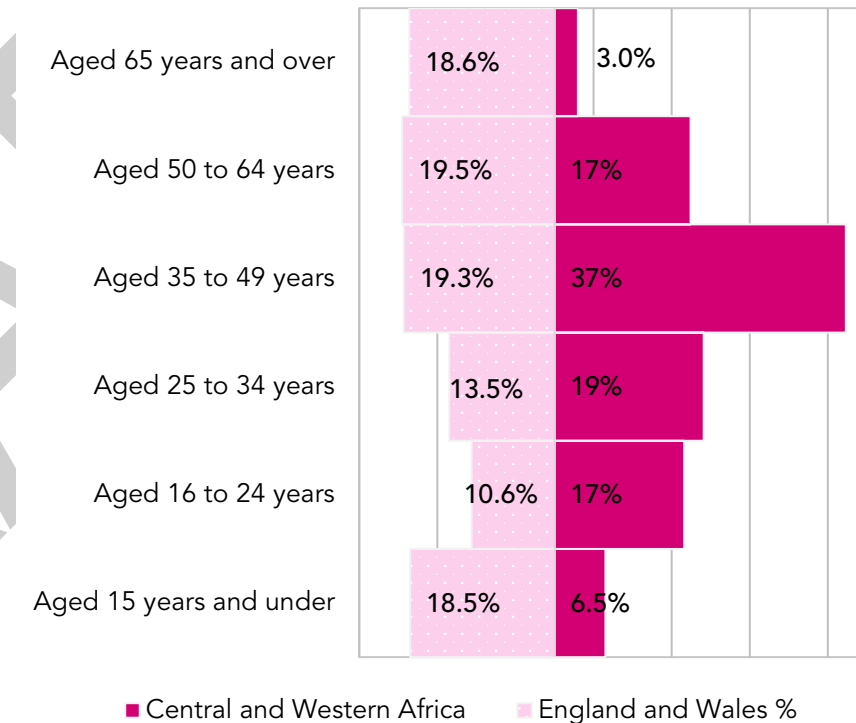
Source: ONS (2023)

190 category dataset for country of birth, 6 category dataset for age

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[e] See **Appendix 3.5** for full data table

Figure 7 shows the distributions of ages between Central and West African born people living in Birmingham and Birmingham averages[f]. Birmingham, on average, had a younger population with 22% in the aged 15 years and under category, compared with 6.5% in Central and West African born people in Birmingham. The largest populations of Central and West African born people were in ages 25 to 34 (19%) and 35 to 49 (37%), which were both higher than Birmingham averages (25 to 34 = 15%, 35 to 49 = 19%). The percentage of those in the 65+ age category was higher in Birmingham averages (13%) versus Central and West African born people (3.0%).

Note: the 190-category dataset for people born in Central African countries by age was not available for Birmingham level data by age. In the absence of this, Central and West African born people was selected, which is likely to include populations that are classified as not being Central African. It will also not include people from Burundi, Rwanda or Zambia which are classified as South and Eastern African countries by the ONS.

Figure 7: Population pyramid, Central and West African born populations: Birmingham, 2021
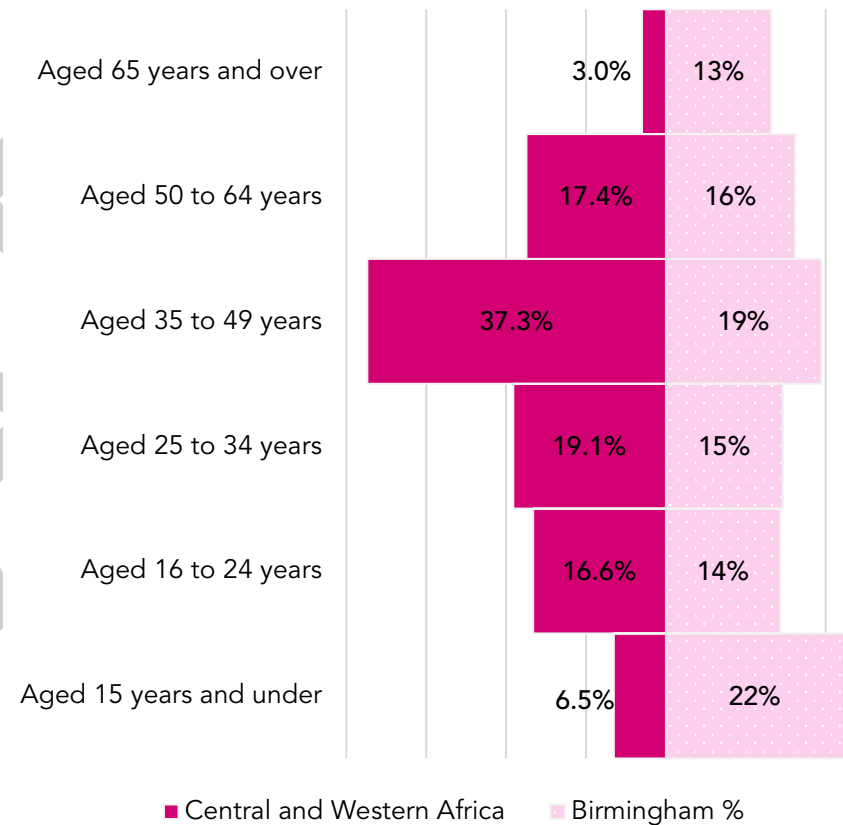
Source: ONS (2023)

60 category dataset for country of birth, 6 category dataset for age

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[f] See **Appendix 3.6** for full data table

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1.5.3 National Identity

The nationality of each Central African country varies. The nationalities are Congolese for DRC and Republic of the Congo, Angolan, Burundian, Cameroonian, Central African (for Central African Republic only), Chadian, Equatorial Guinean or Equatoguinean, Gabonese, Rwandan, Sao Tomean and Zambian.

When looking at the census 2021, a large percentage of people born in Central African countries identified within the different categories for British (**Table 11**). 53% identified as British only, 3.5% as Other identity and at least one UK identity, 1.9% as English and British only, and 1.6% as English only. African nationalities included Other Central and Western African (14%) and Other South and Eastern African (6.0%). Of figures not included in the table, 0.3% identified as Nigerian, 0.2% as Zimbabwean, and 0.2% identified as South African.

As Zambia is part of the Commonwealth, it would be expected that a high percentage of people born in Zambia would identify as British. When Zambia is removed from the dataset, the percentages of British identity are lower, and percentages of African, Portuguese, French, and Spanish national identities increase.

Table 11: National identity of Central African born people: England and Wales, 2021

Nationality	Percentage	Percentage excluding Zambia
British only identity	*53*	*49*
Other Central and Western African	14	18
Portuguese	11	14
Other South and Eastern African	6.0	4.4
Other identity and at least one UK identity	*3.5*	*3.0*
English and British only identity	*1.9*	*1.1*
Other EU member countries in March 2001	1.8	2.3
French	1.8	2.3
English only identity	*1.6*	*1.1*
Spanish (including Canary Islander)	1.1	1.4

Source: ONS (2023)

190 category dataset for country of birth, 73 for national identity

Note: As there were 73 different national identities, national identities that were less than 1.0% were excluded from the table. A full dataset can be found on the 2021 census create a custom dataset tool.

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1.5.4   Sexual Orientation

The 2021 census does not allow for investigations into sexual orientation by country of birth. Central African countries have varied legal discrimination in the form of enforcement and legal penalties against LGBTQ+ people (**Figure 8**). The legally prescribed punishment for consensual same-sex sexual relations between adults in Chad, Burundi, Cameroon, and Zambia is imprisonment. In São Tomé and Príncipe, Rwanda, Equatorial Guinea, Congo, DRC and Central African Republic, the law does not criminalise consensual same sex sexual relations, however legislation is still discriminative of LGBTQ+ people. From July 2019 Gabon, and February 2021 Angola, decriminalised same-sex relationships. However, antidiscrimination laws do not explicitly extend protections to people based on their sexual orientation, gender identity, or sex characteristics (US Department of State, n.d.; Equaldex, n.d.; Inclusive Governance Initiative, 2022; Human Rights Watch, 2021). Where there are limited legal protections, deep-rooted discrimination can also affect the ability of LGBT+ people to access health and other services (Langat, 2021). This can lead to greater inequalities, such as increased HIV prevalence, decreased access to jobs, and experience of hate crimes (UN, 2015; Samuel, 2020).

Figure 8: Map of African countries that legalise and criminalise homosexuality, 2018

Death penalty for 'Homosexuals'
Mauritania, Sudan, northern Nigeria and southern Somalia

Homosexuality is illegal
Algeria, Angola, Botswana, Burundi, Cameroon, Comoros, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Kenya, Liberia, Libya, Malawi, Mauritania, Mauritius, Morocco, Namibia, Nigeria, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Sudan, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe

Homosexuality is legal
Benin, Burkina Faso, Cape Verde, Central African Republic, Chad, Congo-Brazzaville, Cote d'Ivoire, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Gabon, Guinea-Bissau, Lesotho, Madagascar, Mali, Mozambique, Niger, Rwanda, South Africa

Source: Amnesty International UK (2018)

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2. Community Profile

2.1 Getting the Best Start in Life

Key Findings

- Women living in England and Wales but born in Africa had a TFR of 2.8 in 2011, the highest TFR of women not born in England and Wales. Among women born in Central African countries the TFR varied from 4.2 (DRC) to 2.0 (Zambia).

- In 2021, 1,838 live births in England and Wales were from women born in Central Africa. This accounted for approximately 0.29% of all live births.

- Public Health England data from 2013 indicated that infant mortality rates were high for babies born of mothers born in Central Africa (8.3 deaths per 1,000 live births). This compared to 3.6 per 1,000 live births for women born in the UK.

- There is no data on childhood immunisation for Central African children in the UK. International data suggests that uptake of measles, HepB3 and DPT is varied across Central Africa; for example, measles uptake in 2021 ranged from 36% in Angola to 90% in Zambia.

- There is no data on childhood obesity for Central African children in the UK. However international data from Middle Africa shows increasing rates of overweight and obesity, both higher among girls. The percentage of overweight girls rose from 12% in 2011 to 15% in 2016.

- There is no data on childhood tooth decay among Central African children in the UK. International data suggests that prevalence of untreated caries in 2019 was higher among children aged 1 to 9 in Central Africa (ranging from 36% in Equatorial Guinea to 42% in Burundi) than in the UK (20%).

2.1.1 Fertility

Fertility among a population can be represented using the 'Total Fertility Rate (TFR),' which can be defined as "the average number of live children that a group of women would bear if they experienced the age-specific fertility rates of the calendar year in question throughout their childbearing years (Birmingham City Council, 2021).

Fertility rates for many migrant groups in Britain have declined to around the national average, and below it in some cases, with a general decrease in TFRs noted for all women from 2004 to 2021. However, in 2021 it was reported that non-UK born women overall still have higher TFRs (2.0) than UK-born women (1.5) in England and Wales (ONS, 2022).

At time of writing, the ONS holds data on TFR by country of birth in 2011, but not in 2021. In 2011, TFRs for migrant women from across sub-Saharan Africa and Central African countries varied (**Table 12**). The average TFR for women born in African was 2.8.The highest TFR rate for Central African women living in the UK was 4.2 (DRC which was also the third highest in Sub-Saharan Africa and more than twice the England and Wales average of 1.9) followed by 3.0 (Cameroon),

2.6 (Rwanda), 2.6 (Burundi), 2.3 (Angola), 2.1 (Congo) and 2.0 (Zambia) (see **Table 9**). All of these rates were higher than the UK-born population (1.8).

Table 12: Total fertility rates for non-UK born women living in England and Wales, 2011

Mothers' Country of Birth	Total Fertility Rate 2011
England and Wales	*1.9*
DRC	4.2
Cameroon	3.0
Rwanda	2.6
Burundi	2.6
Angola	2.3
Congo	2.1
Zambia	2.0

Source: Aspinall and Chinouya (2016).

Census 2021 data indicated 30% of live births were to non-UK-born women; this is an increase from 29% in 2020 (ONS, 2022). The Central African countries in this profile are not included in the list of ten most common countries of birth for non-UK born mothers in England and Wales in 2012, 2015, 2018 and 2021 and country specific information is not available at the time of the writing this profile which means it is not possible to provide a more detailed breakdown of data for women living in the UK from Central Africa beyond the 2011 data.

Table 13 provides an overview of maternal health statistics in Central Africa. There are a number of reasons underpinning some of the highest infant and mortality rates in the world that are evident in this region. It has been reported that Chad has the world's third highest maternal mortality rate. Among the primary risk factors were poverty, anaemia, rural habitation, poor education, and a lack of access to family planning and obstetric (antenatal) care (Chad, 2023g). Only about a quarter of women are literate, less than 5% use contraceptives, and more than 40% undergo Female Genital Mutilation (FGM). In the DRC, ongoing conflict, mismanagement of resources, and a lack of investment have resulted in food insecurity and malnourished children. Fertility remains high at more than 5 children per woman and is likely to remain high because of the low use of contraception and the cultural preference for larger families (CIA, 2023a). In Angola, fewer than half of women deliver their babies with the assistance of trained healthcare staff, which contributes to Angola's high maternal mortality rate (CIA, 2023c). In Burundi, food shortages, poverty and a lack of clean water contribute to malnutrition among children. A lack of reproductive health services has prevented a large reduction in Burundi's maternal mortality and fertility rates, which are both among the world's highest. With two-thirds of its population under the age of 25 and a birth rate of about 6 children per woman, Burundi's population will continue to expand rapidly for decades to come, putting additional strain on a poor country (CIA, 2023d). Zambia's high fertility rate continues to drive rapid population growth and averages among the world's highest, almost 6 children per woman, largely because of the country's lack of access to family planning services, education for girls, and employment for women (CIA, 2023l). Zambia also exhibits wide fertility disparities based on rural or urban location, education, and income. Poor, uneducated women

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from rural areas are more likely to marry young, to give birth early, and to have more children, viewing children as a sign of prestige and recognizing that not all of their children will live to adulthood. HIV/AIDS is prevalent in Zambia and contributes to its low life expectancy (CIA, 2023l).

Congo is in the early stages of a demographic transition, whereby a population shifts from high fertility and mortality rates to low fertility and mortality rates (CIA, 2023b). The transition has been slow, however, and Congo has yet to benefit from a 'demographic dividend', the economic boost that can occur when the share of the working-age population is larger than the dependent age groups.

Fertility is falling in Cameroon but remains at a high level, especially among poor, rural, and uneducated women, in part because of inadequate access to contraception (CIA, 2023e). Life expectancy remains low at about 55 years due to the high prevalence of HIV and AIDs and an elevated maternal mortality rate, which has remained high since 1990.

Rwanda's fertility rate declined sharply during the last decade, as a result of the government's commitment to family planning, the increased use of contraceptives, and a downward trend in ideal family size. Despite this reduction in fertility, Rwanda's birth rate remains high and will continue to be high for an extended period of time because of its large population entering reproductive age (CIA, 2023j).

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Table 13: Overview of maternal health statistics in Central Africa, 2023

Country	Birth rate Births per 1000 population	Maternal mortality ratio Female deaths/ 100,000 live births	Infant mortality rate Child deaths/ 1000 live births	Total fertility rate Children born/ woman	Children underweight - under 5yrs (% of total population)	Contraception prevalence (%)	Mothers mean age - 1st birth (years)	Child marriage Women married by 15yrs (%)
Angola	42	241	59	5.8	19	14	19	7.9
Burundi	35	548	38	5.0	27	29	22	2.8
Cameroon	36	529	49	4.6	11	19	20	11
Central African Republic	33	829	83	4.0	21	18	Not reported	26
Chad	40	1140	65	5.5	29	8.1	18	24
DRC	40	473	61	5.6	23	28	20	0
Congo	32	378	48	4.4	12	30	20	8.4
Equatorial Guinea	30	301	78	4.3	5.6	Not reported	Not reported	Not reported
Gabon	26	252	29	3.3	6.4	31	20	Not reported
Rwanda	26	248	26	3.3	7.7	64	23	Not reported
São Tomé and Príncipe	28	130	44	3.6	5.4	50	19	5.4
Zambia	35	213	37	4.6	12	50	19	5.2

Source: CIA (2023a-l)

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2.1.2 Maternal Health

In 2021, the age profile of mothers from Central African countries living in the UK indicated most women gave birth between 30 to 34 years of age, followed by 25 to 29 years, and 35 to 39 years (ONS, 2022). A similar trend was evident in national figures. Overall, in 2021 there were 1,838 births to mothers born in Central Africa, this accounted for approximately 0.29% of all live births (**Table 14**).

Table 14: Live births by age of mother and country of birth of mother: England and Wales, 2021

Age	United Kingdom	Africa	Central Africa	Total
Under 20	11,620	129	9	13,738
20 to 24	58,417	1,834	136	75,602
25 to 29	120,488	6,623	430	163,223
30 to 34	154,690	10,059	672	216,738
35 to 39	81,526	7,689	411	124,942
40 to 44	17,235	2,464	156	28,478
45 and over	1,043	351	24	2,064
All ages	445,055	29,150	1,838	624,828

Source: ONS (2022)

There remains a more than three-fold difference in maternal mortality rates among women from Black ethnic backgrounds as the 2021 Mothers and Babies: Reducing Risk through Adults and Confidential Enquiries across the UK (MBRRACE-UK) report indicates Black women were 3.7 times more likely to die than White women (34 women per 100,000) giving birth (MBRRACE-UK, 2021).

Although data was not available specific to the Central African group, the Black ethnic group has been used as an approximate as roughly two thirds (63%) of Central Africans identify as 'Black African'. However, these results should be interpreted with caution as they may not be applicable to all Central African populations.

A qualitative study conducted in the UK and West Midlands explored African migrant women's perceptions of pre- and post-migration influences on their weight-related behaviours and weight management support during pregnancy. The study included 23 interviews with women of child-bearing age with eight women from Cameroon and seven women from the West Midlands (although it was not possible to distinguish between respondents and their UK region and country of origin). This study found that women struggled to relate to dietary advice from midwives as examples of food that were discussed were not compatible with routine dietary behaviours. Despite this, women reported paying more attention, since migrating, to what they ate during pregnancy as they were more exposed to health messages about nutrition in pregnancy. This resulted in reduced intake of unhealthy food, drinking lots of water and questioning myths and taboos commonplace in Africa that prohibit certain types of food during pregnancy such as avoiding eggs to minimise future fertility problems. Although when in Africa, pregnant women received less advice from healthcare providers, some participants felt that the format in which midwives delivered advice to pregnant women (e.g., through group dance sessions with pregnant women) was a better approach to encourage women to be active during pregnancy, unlike the one-to-one sessions they had with midwives in England. They also discussed the importance of familial and social support networks to reduce stress and minimise

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activity levels as per cultural traditions and norms during pregnancy (Ngongalah *et al.,* 2021). This study was not specific to Central African migrants and also included African migrants from Nigeria (n=9) and Ghana (n=6), therefore caution must be applied when interpreting findings from this report.

2.1.3 Infant Mortality, Stillbirths and Live Births

Countries included in the Central African group as part of census 2021 data are Angola, Cameroon, Central African Republic, Chad, Congo, DRC, Equatorial Guinea, Gabon and São Tomé and Príncipe. Burundi, Rwanda, and Zambia were recorded as part of East Africa and included data from 15 other countries in this region. Live births by country of birth of mother in England and Wales from 2016 to 2021 indicated a gradual reduction in live births of mothers from Central African and East African countries (**Table 15**) (ONS, 2022). This is in line with trends observed with women born in the UK. Caution needs to be exercised when interpreting East African data as this included three of the countries included in this profile and 15 countries that are not included in this health profile.

Table 15: Live births by country of birth of mother in England and Wales, 2016 to 2021

Year	UK	Total outside UK	Central Africa	Eastern Africa	Total
2016	499,974	196,254	2,247	12,371	696,271
2017	486,417	192,651	2,245	11,899	679,106
2018	471,476	185,569	2,117	11,017	657,076
2019	456,328	184,003	2,075	10,759	640,370
2020	434,024	179,881	1,890	10,013	613,936
2021	445,055	179,726	1,838	9,751	624,828

Source: ONS (2022)

Public Health England (PHE) 2013 data in England and Wales found the infant mortality rate for babies of mothers born outside the UK was 4.2 deaths per 1,000 live births annually compared with 3.6 deaths per 1,000 live births for mothers born in the UK. The highest infant mortality rates of 9.0 and 8.3 deaths per 1,000 live births were for babies of mothers born in the Caribbean and in Central Africa respectively (PHE, 2017).

A 2019 systematic review and meta-analysis of cohort studies of 15 million pregnancies found that compared with White women, Black women were 1.5 to 2 times more likely to have a stillbirth at all gestational ages (Muglu *et al.*, 2019). The review cited that potential reasons for this have been attributed to determinants such as low educational and socioeconomic status, reduced access to antenatal care, and increased rates of foetal growth restriction. Challenges within the healthcare systems and wider systemic challenges of

pregnant women seeking asylum from Central Africa in the UK is impacted by wider social factors including housing policies, immigration status and cultural barriers resulting in women experiencing appointment booking challenges, inappropriate accommodation, being disconnected from a social support network and not being asked or listened to (UK Health Security Agency (UKHSA), 2023).

2.1.3.1   Lower Respiratory Tract Infections

Globally, lower respiratory tract infections (LRTIs) remain a leading cause of death for infants under the age of 5 (Safiri *et al.,* 2023). LRTIs are caused by either viral (respiratory syncytial virus), parainfluenza virus, influenza virus, adenovirus and coronavirus or bacterial infections (Streptococcus pneumonia and Haemophilus influenzae type b (Hib)). Systematic analysis of the Global Burden of Disease Study 2016 estimated that LRTIs caused 15% of all deaths in African children, while research by United Nations Children's Fund (UNICEF) found that 50% of all deaths worldwide caused by LRTIs are within sub-Saharan countries (GBD, 2018; UNICEF, 2016). Of sub-Saharan countries, prevalence of LRTIs have been shown to be high in Central African countries. A study which summarised the most recent Demographic and Health Surveys from 2010 to 2016, found that the prevalence of acute LRTIs was 40% in Congo, 38% in Gabon, and 34% in Zambia; the first two of these were the highest prevalence in all of sub-Saharan Africa (Seidu *et al.* 2019).

2.1.4   Childhood Vaccinations

There are currently 18 routine vaccinations offered to children from eight weeks up to 14 years of age in the UK (UKHSA, 2023).

UK data on Central African group ethnicity and childhood vaccine uptake in the UK was not available. According to the WHO, rates of measles, HepB3, and DPT immunisation vary amongst Central African countries (**Table 16**). For example, in 2021 rates of all three immunisations were high within Burundi and Zambia, while low in the Central African Republic and Angola. It is important to be mindful of the countries where immunisation rates are low, as migrants from these countries should be informed of the national immunisation schedule within the UK, to make sure that they are up to date with national guidelines.

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Table 16: Rates of immunisations of measles, HepB3, and DPT in Central African countries, 2021

Country	Measles (%)	HepB3 (%)	DPT (%)
Angola	36	41	45
Burundi	90	94	94
Cameroon	62	69	69
Central African Republic	41	42	42
Chad	55	58	58
DRC	55	65	65
Congo	68	77	77
Equatorial Guinea	53	53	53
Gabon	64	75	75
Rwanda	87	88	88
São Tomé and Príncipe	77	97	97
Zambia	90	91	91

Source: WHO cited by The World Bank (2023)

Note: HepB3 = % of one-year-old children immunised, DPT and measles = % of children aged 12 to 23 months immunised

According to the WHO (2023a), around 33 million children in Africa will need to be vaccinated between 2023 and 2025 to put the continent back on track with 2030 global immunisation goals. The rates of under-vaccinated and zero-dose children rose by 16%

during the pandemic from the years 2019 to 2021. This may mean that recent child migrants from Central African countries are less likely to be up to date with immunisation targets.

A qualitative study conducted in Zambia with 50 mothers indicates maternal Tdap/DPT (diphtheria, pertussis, and tetanus) vaccine acceptability is high in Zambia. This may explain why rates of immunisation were reported as being high for DPT, measles, and HepB3 within Zambia. Mothers viewed vaccinations as an important method to keep their children healthy, despite cultural myths and misconceptions about pertussis and vaccines. Barriers and facilitators to vaccine uptake included partner involvement, feelings of maternal authority over healthcare decision-making, and community rumours about Western medicine (Larson Williams *et al.,* 2018).

2.1.5 Screening Programmes

The 20-week scan as part of the NHS screening programmes in England currently offers screens for infectious diseases (HepB3, HIV, and syphilis), Down's syndrome, Patau's syndrome and Edwards' syndrome, sickle cell disease and thalassaemia checks on the physical development of the baby (known as the 20-week scan or mid-pregnancy scan), and diabetic eye screening if someone is pregnant and has type 1 or type 2 diabetes. Screening for new-born babies includes a physical examination, which includes the eyes, heart, hips and testes, a hearing test, a blood spot test to check for rare conditions, and diabetic eye screening where, from the age of 12, all people with diabetes are offered an annual diabetic eye test to check for early signs of diabetic retinopathy.

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Sickle cell disease, such as sickle cell anaemia, are inherited lifelong health conditions that affect the red blood cells. When the family of both parents of a baby are Black African the risks of relevant haemoglobinopathies is 1 in 14 but remains high (1 in 100) if one of the parents is of Black African descent (Aspinall and Chinouya, 2016). There therefore is a heightened risk of sickle cell disease amongst Central Africans who are of Black African ethnicity. Sickle cell disease screening is offered by the NHS to pregnant mothers who are at risk of being a sickle cell carrier.

Vitamin D deficiency in UK ethnic minority populations is indicative of health inequality as lack of supplements provided during pregnancy can increase risk of rickets in a high proportion of dark-skinned infants with low vitamin D status (Uday *et al.,* 2021). OHID's migrant health guides indicate for many Central African countries, there are risks of vitamin A and D deficiency, and anaemia within adults, highlighting the importance of testing, particularly women and children (OHID, 2023a). As the risk of vitamin D deficiency is higher in Black-ethnic people, it is important to be thorough with checking with people of Black ethnicity who have migrated from Central Africa.

2.1.6   Childhood Obesity

The National Child Measurement Programme (NCMP) measures the height and weight of children in Reception class (aged 4 to 5) and Year 6 (aged 10 to 11), to assess overweight and obesity levels in children within primary schools. This data was not available for

country of birth or national identity at a Central African level, so host country data is used.

The Global Nutrition Report (2023) featured a subregion labelled Middle Africa, accounting for people from Angola, Cameroon, Central African Republic, Chad, Congo, DRC, Equatorial Guinea, Gabon, and São Tomé and Príncipe. Statistics on overweight and obese percentages in Middle Africa by gender are shown in **Figure 9**[g]. Percentages of children overweight and obese rose in Middle Africa from 2011 to 2016 and both were higher amongst girls than boys. For context, 43% of children in Year 6 in Birmingham were overweight or obese in the academic year 2021 to 2022 (OHID, 2023b).

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[g] See **Appendix 3.7** for full data table

Figure 9: The percentage of Middle Africans aged 5 to 19 who are overweight and obese, by gender: Middle Africa, 2010 to 2016
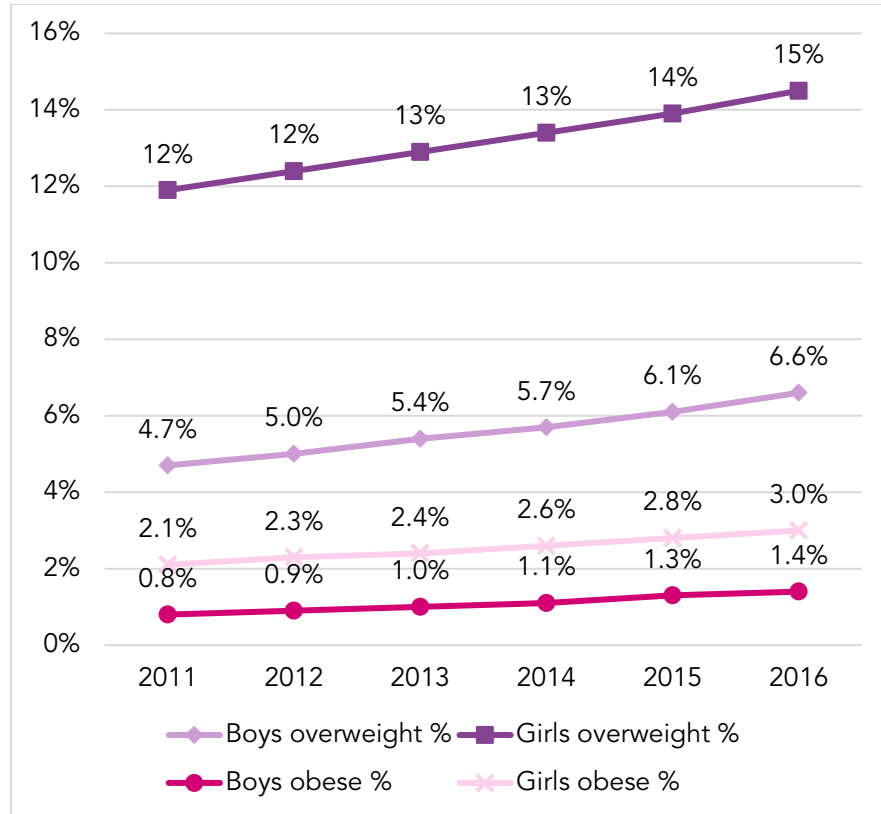
Source: Global Nutrition Report (2023)

2.1.7   Dental Decay in Children

Although oral health is improving in England, the Child Dental Health Survey of 5-year-olds, a survey which is conducted every ten years, in 2019 showed that just under a quarter have tooth decay

(PHE, 2020a). There were marked inequalities in oral health in England across all stages of the life course including childhood with different clinical indicators including dental decay and caries. Relative inequalities in the prevalence of dental caries in 5-year-old children in England increased from 2.9 in 2008, which indicates the proportion of children with dental caries living in the most deprived areas was 2.9 times higher compared with children in the least deprived areas, and in 2019 it increased to 3.8 times higher (PHE, 2021).

Children in all Central African countries, however, in 2019 had higher percentages of untreated dental caries compared with children in the UK although it is difficult to compare to Central African children living in the UK as no data has looked at this (**Table 17**).

Table 17: Prevalence of untreated caries in Central African children, 2019

Country	Untreated caries in teeth in children 1 to 9 years (%)
United Kingdom	20
Burundi	42
Central African Republic	40
Rwanda	40
Chad	40
DRC	40
Zambia	40
Cameroon	39
São Tomé and Príncipe	39
Angola	38
Congo	38
Gabon	37
Equatorial Guinea	36

Source: WHO (2022a)

2.1.8 Children's Mental Health and Wellbeing

There was no data for Central African groups reporting mental health and wellbeing. Data did not reveal the mental health statistics of children specifically in Central Africa, but there is available information for the African region.

UNICEF (2022) reported that heavy alcohol consumption was and remains a growing concern amongst young people aged 15 to 24 in many Central African countries. In Angola, Central African Republic, Congo, DRC, Equatorial Guinea, and Gabon around 80% of people aged 15 to 24 are heavy episodic drinkers. This either relates to poor mental health or causes poor mental health amongst people within this age group.

UNICEF also report that investment in child mental health within all of Africa is poor, with only 0.2 child and adolescent mental health workers per 100,000 people, compared with 1.6 per 100,000 for adult services. It was also reported that the need for mental health and psychosocial support was exacerbated during the COVID-19 pandemic. The number of children targeted for mental health and psychosocial support in Central and West Africa almost doubled from 1.1 million children in 2019 to almost 2 million in 2021 (UNICEF, 2022). This will have put a further strain on services which are already low in staff and resource.

2.1.9 Child Poverty and Children in Care

Poverty is increasing in the UK, and between 2002 to 2003 and 2019 to 2020 the number of people in very deep poverty (which is defined as having an average income that is below 40% after housing costs) increased by 1.8 million, from 4.7 million to 6.5 million people. There is no information available for the rates of poverty experienced by Central African children, nor is there for the number of Central African children in care.

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2.2   Mental Wellness and Balance

Key Findings

- There is no data on alcohol consumption among Central Africans in the UK. International data from 2019 showed Central African countries had a lower intake of alcohol per year (ranging from 0.55L to 6.5L) than the UK (10.8L).

- There is no data on drug use among Central Africans in the UK. In 2020, people aged 15 to 64 in West and Central Africa had higher use of cannabis (9.7%) and opioids (2.4%) compared to global averages (3.8% and 1.2% respectively).

- There is no data on smoking among Central Africans in the UK. Overall smoking rates in 2018 were lower in Central African countries, ranging from 16% in Congo to 5.4% in São Tomé and Príncipe, than the UK average (19%). Men from the Congo had high smoking prevalence (30%).

- Rates of domestic violence were highest amongst women from Equatorial Guinea (44%), DRC (37%) and Cameroon (33%). All Central African countries have higher reported rates compared with the United Kingdom (6.0%).

- According to The World Bank data, 1.4% of women from Cameroon in 2004 had experienced FGM, 21.6% in the Central African Republic, and 34.1% of women had from Chad in 2019.

2.2.1   Mental Health

Mental health data was not available at country of birth or national identity level for Central African people living in the UK. OHID's Migrant Health Guides reported that migrants are at an increased risk of mental health problems prior to, during, and after migration to the UK (OHID, 2023a). They suggest possible causes of poor mental health for migrants include homesickness, anxiety being away from friends or family, integrating into a new culture, language barriers, immigration status, financial difficulties, and access to information/services.

According to the WHO, mental healthcare in sub-Saharan[h] Africa is inefficient, inadequate, and inequitable (WHO Africa, 2022b). For many Africans, there is no choice but to live with their mental health condition due to a lack of available facilities, or to visit community or religious leaders for treatment. Many people in sub-Saharan Africa regularly face the challenge of limited mental health education and awareness, leading to people to live with stigma and shame of their condition (WHO, 2022b). This leads to many not disclosing information about their mental health, due to fear of adverse treatment from the community.

The total number of mental health workers per 100,000 of the population in 2017 and 2020 was lower in all Central African countries compared with the UK (**Table 18**). The UK has 201 workers

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[h] Note: This will include countries that are not part of Central Africa, but similar information is not available just for Central African countries

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per 100,000; the largest number of workers in any Central African country is in São Tomé and Príncipe (8.7). The countries with the most amount of mental health workers per 100,000 people typically had higher numbers of visits to hospital outpatient facilities. Interestingly, Cameroon had a high number of people who visit community-based, non-hospital which suggests that community-care may be more important within people from Cameroon. The lack of available facilities in Central African countries may cause many Central African migrants to the UK to be living with mental health conditions that are either undiagnosed, or untreated.

Table 18: Mental health visits and workers within Central African countries, 2017 and 2020

Country and year of finding	Number of visits*	Number of visits per 100,000 population**	Mental health workers per 100,000 population
Angola (2017)	530	N/A	1.5
Burundi (2017)	6.6	N/A	0.64
Cameroon (2020)	65	482.3	N/A
Central African Republic (2017)	N/A	N/A	0.15
Chad (2020)	7.2 (2017)	N/A	0.15
DRC (2020)	2.3	1.53	N/A
Congo (2017)	6.9	N/A	0.62
Equatorial Guinea (2020)	170 (2017)	N/A	6.2
Gabon (2020)	97	N/A	1.6
Rwanda (2020)	1,623 (2017)	N/A	4.0
São Tomé and Príncipe (2017)	N/A	N/A	8.7
Zambia (2020)	32	N/A	4.3
For context: United Kingdom (2020)	2,948	N/A	201

Source: WHO Africa (2021a)

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Note: (2017) is given in columns B, C, or D where data or information was not available in 2020 and only available in 2017 N/A was written where data was either not reported or not available

* Visits to mental health outpatient facilities attached to a hospital

** Number of visits in "Community-based or non-hospital" mental health outpatient facility per 100,000 population

2.2.2 Alcohol

There was no information on alcohol consumption by the Central African community in the UK. The WHO (2023b) reported the amount of pure alcohol consumed per person per year in 2019 (**Table 19**). Rates of alcohol consumption were highest in Gabon (6.5L per person) and Rwanda (6.4L), while lowest in Chad (0.55L) and the DRC (0.56L). All Central African countries had a lower intake than the United Kingdom average (11L).

Table 19: Consumption of alcohol in Central African countries, 2019

Country	Alcohol consumed per capita (L)
Gabon	6.5
Rwanda	6.4
Equatorial Guinea	6.1
Angola	5.8
Congo	5.7
São Tomé and Príncipe	4.2
Burundi	4.1
Cameroon	4.1
Zambia	3.8
Central African Republic	0.94
DRC	0.56
Chad	0.55
For context: United Kingdom	11

Source: WHO (2023b)

As identified in *section 2.1.8*, high rates of alcohol consumption were reported in 15- to 24-year-olds from Angola, Central African Republic, Congo, DRC, Equatorial Guinea, and Gabon.

2.2.3 Drug Use

There was no data or information about drug use within the Central African community in the UK. In the absence of available data, studies measuring substance use within Central African countries have been used.

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A report produced by Reuters highlighted drug use from the World Drug Report 2022 (UN, 2022; Reuters, 2022). The report identified that drug use is becoming a problem within West and Central Africa[i]. For example, 9.7% of people aged 15 to 64 consumed cannabis in 2020, compared with 3.8% of people globally. Opioid use was also raised in West and Central African countries, with 2.4% of the population using in 2020 compared with 1.2% worldwide. The most common opioid use was tramadol, a type of strong painkiller. Drugs have been trafficked through West Africa on the route from South America to Europe, which has become more common due to rising instability in West Africa (Reuters, 2022). The potential issue of drug use in West and Central Africa has also been noted by the UN. It was noted that in 2016, there were 34 million cannabis users in West and Central Africa and 1.8 million cocaine users (UN, 2018). Despite this, only one in 18 drug users with addiction issues have access to available medical treatment in West and Central Africa. It would therefore be useful to ensure that Central African migrants with experience of drug use are made aware of available local drug services when living in Birmingham.

2.2.4 Smoking

There was no data or information about smoking prevalence within the Central African community in the UK. The World Population Review (2023) produced statistics on smoking rates for males and females within Central African countries in the year 2018 (**Table 20**). *Note: some of the countries within Central Africa are not captured*

by the World Population Review. Overall, total smoking rates (males and females) were lower within the Central African countries than the United Kingdom average, where 19% of people smoke. Within all Central African countries, the rates of male smokers were higher than female smokers; this is most notably marked in Congo, Chad, and Cameroon. It would be useful to ensure that stop smoking services are made available to Central Africans when living in the UK, particularly with migrants from countries where smoking prevalence is highest (Congo, Zambia, and Rwanda). This may be most appropriately targeted to males.

Table 20: Smoking rates in Central African countries, 2018

Country and year of finding	Total smoking rate (%)	Male smoking rate (%)	Female smoking rate (%)
For context: United Kingdom	19	21	17
Congo	16	30	2.0
Zambia	15	25	4.4
Chad	12	21	2.3
Average Central African	12	21	3.0
Rwanda	13	20	6.9
Cameroon	9.3	18	1.2
São Tomé and Príncipe	5.4	9.5	1.4

Source: World Population Review (2023)

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[i] It is worthy to note that the findings contain some countries that are not Central African, as defined in this profile.

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Note: Average Central African does not account for population differences between countries and instead has taken the average from the Central African countries within the table

2.2.5 Domestic Violence

2.2.5.1 All domestic violence

Domestic abuse is defined in the UK by the Domestic Abuse Act 2021 (Home Office, 2023). The definition of domestic abuse is behaviour of a person ("A") towards another person ("B") if: (a) A and B are each aged 16 or over and are "personally connected[j]" to each other, and (b) the behaviour is abusive. Behaviour is "abusive" if it consists of any of the following[k]:

- Physical or sexual abuse
- Violent or threatening behaviour
- Controlling or coercive behaviour
- Economic abuse (acquiring, using, or maintaining money or other property, or obtaining goods or services)
- Psychological, emotional, or other abuse.

There was no information on domestic abuse and violence within Central Africans living in the UK. **Table 21** shows the proportion of women subjected to physical and/or sexual violence in the last 12 months (% of women aged 15 to 49) in Central African countries from the years 2006 to 2017. Rates were highest amongst women from Equatorial Guinea (44%), DRC (37%) and Cameroon (33%). All

Central African countries have higher reported rates compared with the United Kingdom (6.0%). It is therefore important to ensure that Central African women are made aware of local and national domestic abuse services when living in the UK.

Table 21: Proportion of women subjected to physical and/or sexual violence in the last 12 months (% of women aged 15 to 49) in Central African countries, most recent year (2006 to 2017)

Country	Rates of domestic violence (%)	Most recent year of finding
Equatorial Guinea	44	2011
DRC	37	2014
Cameroon	33	2014
Gabon	32	2012
Burundi	28	2017
Zambia	27	2014
Central African Republic	26	2006
São Tomé and Príncipe	26	2009
Angola	26	2016
Rwanda	21	2015
Chad	18	2015
Congo	N/A	N/A
For context: United Kingdom	6.0	2012

Source: UN Statistics Division cited by Index Mundi (2023).

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[j] The definition of "Personally Connected" can be found in the Domestic Abuse Act 2021

[k] It does not matter whether the behaviour consists of a single incident or a course of conduct.

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Note: data was not available for Congo

It is important to note that domestic abuse or violence can also be experienced by men. This is however often underreported and there was no such evidence for the experiences of men from Central African countries.

2.2.5.2 Female genital mutilation

FGM remains a health concern in many African countries. The WHO define FGM as "all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for non-medical reasons" (WHO, 2023c). Rates of FGM vary across Central African countries, but it remains a common practice in some CARs. According to UNICEF data cited by The World Bank (2023), 1.4% of women from Cameroon in 2004 had experienced FGM, 22% in the Central African Republic in 2019, and 34% of women had from Chad in 2019. Healthcare practitioners should be advised that FGM may be common within people who have moved from Central African countries. This is likely to present barriers or challenges to aspects of healthcare. For example, FGM may impact the experience of cervical cancer screening by:

- Emotional effects – emotional difficulties of the experience of having undergone FGM, and it being anxiety-provoking to discuss FGM with a healthcare professional.
- Physical effects – smear tests can be physically challenging to perform for a nurse. It may also be extremely painful for the attendee of the smear test.

- Cultural effects – for some people whose first language is not English, this may make it more challenging to discuss their experience of FGM at a smear test (Pinnell, 2023).

2.2.6   Hate Crimes and Discrimination

Information on hate crimes and discrimination was not available for Central Africans living in the UK. There has been reported differences in hate crimes between ethnic groups. For example, between 2017 and 2020, 0.9% of all Black adults aged 16 and over were victims of racially motivated hate crime compared with 0.1% of White adults, 0.3% adults with mixed/multiple ethnic groups and 1% of adults with Asian ethnicity (Allen and Zayed, 2022). This would suggest that Black, Mixed, and Asian-ethnic Central Africans would be more at risk to hate crime than White Central Africans.

The UN Working Group of Experts on People of African Descent in 2023 warned that racism in the United Kingdom is structural, institutional, and systemic (UN, 2023). The article suggested that racism, racial discrimination, and other intolerance towards people of African descent has increased over the past decade. Migrants from Central Africa may also experience discrimination for other factors than race such as religion, nationality, having a foreign accent, or having a lower proficiency in English language (The Migration Observatory, 2020).

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2.3   Healthy and Affordable Food

Key findings

- There is no data for eating habits among Central Africans in the UK. However, international data from 2022 showed high consumption of red meat (181% of target intake), and low consumption of fruit (34% of target intake), vegetables (46% of target intake) and legumes (25% target intake) among adults aged 20+ in Middle Africa.

- Data from the Global Nutrition Report (2023) also showed that from 2017 to 2022 all 9 of the Middle African countries studied were 'off course' with targets relating to sodium intake for men and women.

- There is no data on obesity for Central Africans in the UK. Data from the Global Nutrition Report highlighted that 43% of females and 24% of males in Middle Africa were overweight or obese in 2016. This is compared with Birmingham, where from 2021 to 2022 23% of the population were overweight or obese.

2.3.1   Diet and Nutrition

There is limited information on the diet of Central Africans living in the UK. Studies have found an association between acculturation (i.e., learning and incorporating values and beliefs and customs of a new country or culture) and dietary patterns of immigrants. One study explored Black African migrant women's perceptions of pre- and post-migration influences on their physical activity and diet in England (Ngongalah *et al.,* 2021)*.* They had migrated from three countries in sub-Saharan African including Cameroon. They described having a less active lifestyle and reported a socially influenced change in their dietary behaviours and navigation of new food environments, resulting in increased fast-food consumption due to convenience and availability, and an attempt to fit into a new society. Fast foods are low in nutritional value , and contains high levels of refined sugar, salt and fat , resulting in health conditions such as diabetes, cardiovascular disease (CVD), higher blood pressure, as well as increased weight and obesity (Furhman, 2018).

The Global Nutrition Report has investigated progress towards global nutrition targets amongst 9 Central African countries. **Table 22** shows that rates of anaemia are seeing some progress in five of the nine countries (56%). Targets for sodium intake, diabetes, and raised blood pressure are off course in all nine countries.

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Table 22: Progress of achieving global nutrition targets in Middle Africa, from 2017 to 2022

Measure	On course	Some progress	No progress or worsening	Off course	On course or some progress (%)
Anaemia	0	5	4	0	56
Sodium intake for men and women	0	0	0	9	0
Diabetes, women	0	0	0	9	0
Diabetes, men	0	0	0	9	0
Raised blood pressure, men	0	0	0	9	0
Raised blood pressure, women	0	0	0	9	0

Source: Global Nutrition Report (2023)

Note: 0 indicates that none of the 9 countries fall in to the category of progress

The report also highlights the dietary intakes of key foods and nutrients in **Table 23**, of which the average intake (grams per day) is below in many items including fruit, vegetable, legumes, nuts, and wholegrains are below the recommended target intake, while red meat and fish consumption exceeds recommended maximum target intake. Dairy intake is within the maximum target.

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Table 23: National dietary intakes of key food or nutrients (grams/day) of adults aged 20+: Middle Africa, 2022

Food/Nutrient	Current national intake (% given as percentage of target)	Maximum target intake*	Relation to target
Fruit	67.7g (34%)	200g	Below target intake
Vegetables	138.7g (46%)	300g	Below target intake
Legumes	25.0g (25%)	100g	Below target intake
Nuts	10.2g (41%)	25g	Below target intake
Wholegrains	56.5g (45%)	125g	Below target intake
Fish	29.7g (106%)	28g	Exceeds maximum target intake
Dairy	93.9g (38%)	250g	Within target
Red meat	25.3g (181%)	14g	Exceeds maximum target intake

Source: Global Nutrition Report (2023)

Intakes are reported in grams per day (g/d) for all dietary factors. Intakes are based on modelled estimates for adults aged 25 years and older. Recommended intake targets were determined by the EAT-Lancet Commission on healthy diets from sustainable food systems.

An understanding of popular cuisine in Central African countries may help support in creating appropriate health interventions to encourage healthy eating. A summary of Central African cuisines can be seen in **Appendix 4**.

2.3.2 Obesity

Being overweight or obese is associated with increased rates of chronic disease and are major risk factors for NCDs such as CVDs, diabetes, and some types of cancer (WHO, 2023d). Overweight and obesity are defined as abnormal or excessive fat accumulation that presents a risk to health. A body mass index (BMI) over 25 is considered overweight, and over 30 is obese.

There is no data specifically on the rate and prevalence of overweight and obesity within the Central African communities across the UK. The Global Nutrition Report (2023) highlights that rates of overweight and obesity have risen amongst Middle African males and females in previous years. In 2010, there were 30% of females and 17% of males who were overweight, which rose to 34% and 20% in 2016. Obesity is higher in females, rising from 9.0% in 2010 to 12% in 2016, compared with males (3.0% in 2010 to 4.2% in 2016). For context, the rates of those that are overweight and obese in Birmingham was 23% in years 2021 and 2022 (OHID, 2023c).

Another study in 2017 reported that the Cameroonian population which have settled in Yaoundé (the capital of Cameroon), from rural

West Cameroon, and those who then go on to migrate to Paris have high rates of obesity due to a 'nutritional transition', i.e., the consumption of high-calorie, energy dense modern diets such as meats, cheese, chocolate, soda, juice, and alcohol, with less consumption of more traditional unprocessed foods (Cohen *et al.,* 2017). Similarly in Birmingham, eating foods with higher energy intake is common as there are many fast-food outlets offering takeout foods with little nutritional value (Birmingham City Council, 2023). It may therefore be expected that rates of overweight and obesity within Central Africans would rise when migrating to the UK.

2.3.3 Food Insecurity

Francis-Devine et al. (2022) suggests that household food insecurity is whether a household can acquire an adequate quality or sufficient quantity of food in socially acceptable ways. Between June to July 2022, of the 91% of adults who reported an increase in their cost of living, 95% reported that their food bill had increased, while 44% reported that they had reduced spend on essentials, including food (Francis-Devine et al., 2022). As food insecurity has increased following the pandemic and in-line with the cost-of-living crisis, it may be expected that the Central African community is more food insecure now than during the pandemic. It is important to support Central African communities as they enter the UK, with the Birmingham Food Strategy 2022 to 2030 (Birmingham City Council,

2023), playing an essential role in improving food security for the citizens of Birmingham.

In the absence of available data for Central Africans living in the UK, according to the World Food Programme (2023), in 2023, food insecurity in West and Central African countries was at a 10-year high. This was caused by the combined effects of conflict, climate shocks, COVID-19, and high food prices. It is anticipated that these will cause 48 million people between June and August 2023 to lack regular access to safe and nutritious food in the region.

There are variations between poverty rate, and extent of food bank use, for different ethnic groups. Data from the Trussell Trust revealed only 4% of referrals came from Black communities compared with 93% of those who identified as White British. Barriers to accessing food banks may include stigma, a lack of awareness of local food banks, or presence of a 'gatekeeper' who may either not refer or refuse to refer people to foodbanks (Thompson *et al.,* 2018)[I]. Further data is required on food insecurity in the Central African population specifically, and whether such discrepancy is prevalent within the different ethnic communities that makeup the Central African community.

[I] Note: a possible explanation for this is that different ethnic groups receive food donations in different ways that aren't labelled and recorded as food banks and thus they are not included in findings.

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2.4   Active at Every Age and Ability

Key Findings

- There is no data or published research on physical activity levels of the Central African community in the UK. WHO data from 2022 showed varying levels of physical inactivity; males aged 18+ in Congo (25%) and females in Cameroon (35%) had the highest levels of physical inactivity. Compared with 32% of men and 40% of women in the UK who were physically inactive.

- WHO (2022) also showed that physical inactivity was higher among older Central Africans, physical inactivity rates among adults aged 70+ were highest among females in Cameroon (51%) and males in Congo (37%)

- Studies have found an association between acculturation and physical activity patterns of immigrants. One study found that women from Cameroon felt their physical activities have reduced after migration, due to a more sedentary lifestyle, and that they were more physically active before immigration.

2.4.1   Physical Activity

The UK Chief Medical Officers' report recommends that adults should accumulate at least 150 minutes of moderate intense activity or 75 minutes of vigorous activity per week (Department of Health and Social Care, 2019). Data is not available for the rate of physical activity for Central Africans living in the UK. **Figure 10** shows the

rates of physical inactivity (less than 30 mins per week) in Central African countries for adults (aged 18+) and older adults (aged 70+) by gender. In every country, for each age group, females had a higher percentage of people who were physically inactive compared with males. All countries were less physically inactive (or more active) than the UK averages. 32% of male and 40% of female adults in the UK are inactive, with 47% older males and 56% of older females being inactive.

Figure 10: Physical inactivity rates: Central African countries, 2022

Legend:
- Physical Inactivity Older Adult Female (70+) %
- Physical Inactivity Older Adult Male (70+) %
- Physical Inactivity Adult Females (18+) %
- Physical Inactivity Adult Males (18+) %

Source: WHO (2022b)

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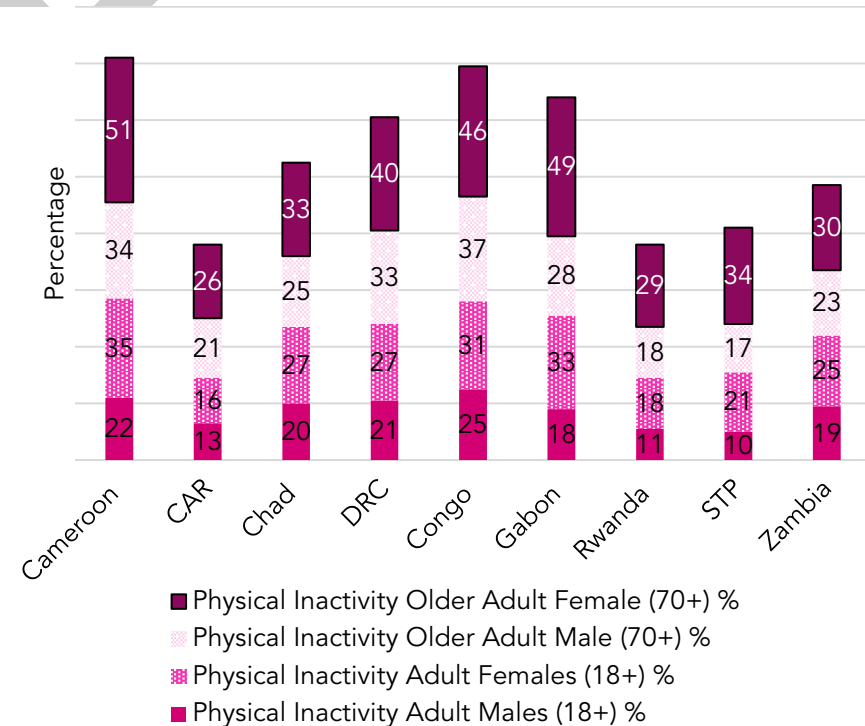
Figures given as percentages.

Note: There was no information available for people from Angola, Burundi, and Equatorial Guinea.[m]

2.4.1.1 Sport in Central Africa

Sports are very popular in Central Africa. Football is popular in each country, while basketball, tennis, athletics are popular in most Central African countries. In Angola, a traditional sport called Capoeira (a form of martial arts that looks like a dance) is popular. Capoeira is an Afro-Brazilian martial art that began in Brazil from enslaved African people with its origins said to be in Angola. It allows people to express themselves through acrobatics, spirituality, dance and/or fighting (Wood, 2014). In Burundi, Horo, a type of ball game, is played by females and the men play free-style wrestling. Wrestling is also a popular sport in Cameroon and Chad while boxing is popular in Cameroon, CAR, Chad, and Zambia.

An understanding of popular sports among Central Africans may be used to support health interventions to improve physical activity rates among the Central African population in the UK.

2.4.2   Mobility

There is no data or research on mobility-related conditions such as musculoskeletal disorders among the UK's Central African community.

2.4.3   Barriers and Facilitators to Physical Activity

In the absence of information on facilitators and barriers to physical activity for Central Africans living in the UK, international findings have been used. Studies have found an association between acculturation (i.e., learning and incorporating values and beliefs and customs of a new country or culture) and physical activity patterns of immigrants. One study in 2021 explored migrant women's perceptions of pre- and post-migration influences on their physical activity levels in England (Ngongalah *et al.,* 2021). They had migrated from three countries in sub-Saharan African including Cameroon. They described England as having an obesogenic environment, contributing to a less active lifestyle due to overreliance on mechanised transport, less outdoor activity due to bad weather, and less household work due to access to household appliances. In contrast, they described being 'more active' in Africa because tasks like house chores are usually done manually, and work-related activities in Africa are 'more energy-demanding,' such as farming. They also described they did not regularly engage in physical activity in England, such as sports and exercise, and they are usually busy with daily tasks, and is not an inherent part of their culture, regarding these activities for males or athletes.

Another study in 2018 explored perceptions and attitudes around physical activity among Congolese immigrants who lived in the United States for at least a year to ensure they were more likely to be acculturated (Ilunga Tshiswaka, *et al.*, 2018). Although they understood the benefits of physical activity, being encouraged by

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[m] See **Appendix 3.8** for full data table

healthcare professionals to exercise, they described that going to the gym does not relate to Congolese culture. Participants expressed they did not culturally perceive exercising in the gym as intrinsic to their daily life practices. They also identified other environmental and physical barriers to inhibit motivation to participate in physical activity, such as cold and/or rainy weather, neighbourhood safety and frequent use of vehicles leading to a more sedentary lifestyle. They disclosed more pronounced willingness to dance (i.e., traditional dance), which is a form of exercise and represents their cultural identity. Local or national data specific for this community was not available which limits the conclusions that can be drawn for this population.

In summary, there are a range of cultural, environmental, and physical barriers that can affect motivation to be physically active. Therefore, it is important to develop culturally competent interventions at individual, community, and organisational levels to reduce health inequalities arising from differences in physical activity levels in Central African communities (Koshoedo, *et al.* 2015). Social, community and familial networks act as protective factors for Central African communities, acting as a buffer for those at high risk of developing health and social problems. It is important to understand cultural identities, health beliefs and behaviours of the UK's Central African population and how migration and acculturation may have altered regular physical activity habits as outlined in the Birmingham and Lewisham African and Caribbean Review (BLACHIR) (Birmingham City Council and Lewisham Council, 2022).

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2.5 Living, Working and Learning Well

Key Findings

- According to Statista, in 2020, the average percentage of those not in education, employment, or training all Central African countries is 22%, which is higher than the average in England and Wales (12%).

- A higher percentage of Central African born people (49%) have Level 4+ qualifications than the England and Wales average (34%).

- Rates of those that are economically active were higher in Central African born (64%) people living in England and Wales, compared with national averages (57%).

- In 2020, there were 536 Zambian NHS health workers (1.3% of the total African NHS workers), 393 Cameroonian (0.95%), 223 Congolese (0.53%), and 100 Central African (0.24%) (people from the Central Africa Republic).

- In the 2021 Census, there was a higher percentage of Central African born people (50.2%) with very good health compared with Birmingham (47.6%) and England and Wales (48.4%) averages.

- Diagnosed diabetes is similar to the UK average in all Central African countries, except from Zambia where rates are higher (11.9% compared with 6.3% in the UK average).

- Rates of hypertension-related and coronary heart disease mortality are higher within Central African populations compared with the UK average.

- The Lancet has labelled Chronic Obstructive Pulmonary Disorder as a 'silent epidemic in Africa,' due to the "general lack of standardised epidemiological instruments and the need to do good quality post-bronchodilator spirometry.

- The overall age-standardised rates (ASR) of cancer incidence are lower on average in Central African countries (115.1 per 100,000 people) compared with the UK (296.1 per 100,000).

- In the 2021 Census, a total of 11% of Central African born people in England and Wales identified as disabled under the Equality Act, compared with 17% in Birmingham and 18% in England and Wales.

- A higher percentage of Central African born people in England and Wales were economically inactive and long term sick or disabled (13%) than the England and Wales average (11%)

- The top 10 most populated Birmingham MSOAs by Central African born people are all in the top 20% most deprived neighbourhoods nationally.

- A higher percentage of Central African born people live in an overcrowded household (30%), compared with the England and Wales average (6.5%).

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2.5.1 Education, Qualification, Skills, and Training

2.5.1.1 Not in Education, Employment, or Training

Education and employment status has been shown to be a marker for future health outcomes. Being not in employment, education, or training (NEET) has been linked to poorer health status, due to the increased likelihood of unemployment, lower wages and/or lower quality of employment later in life (Powell, 2021).

Information on NEET is only available in the UK by ethnicity. When looking at host country data, most Central African countries have higher rates of those NEET than the average for England and Wales (12%). According to Statista (2023), in 2020, the average of all Central African countries was 22%, which was higher than the average in England and Wales. The highest rates in each country were observed in Chad (39%), Gabon (28%), and São Tomé and Príncipe (28%). Only Burundi (7.1%) and Rwanda (6.3%) had lower rates than the average in England and Wales (**Table 24**). This would suggest a lack of employment, education, or training opportunity within Central African countries as people enter their twenties. It is important therefore for Central Africans in the UK to know their opportunities for career development during their adolescence, to reduce rates of those NEET.

Table 24: Rates of 15- to 24-year-olds not in employment, education, or training (NEET): Central African countries, 2020

Country	NEET (%)
Chad	39
Gabon	28
São Tomé and Príncipe	28
Equatorial Guinea	26
Central African Republic	26
Zambia	24
Congo	23
DRC	22
Average Central African	22
Cameroon	19
Angola	12
Burundi	7.1
Rwanda	6.3

Source: Statista (2023)

2.5.1.2 Higher and Further Education

From the latest data from Higher Education Statistics Agency (HESA) (2022), the UK-based body which collects education-related data, the highest number of students studying in West Midlands universities come from Cameroon (n=60), Zambia (n=40), and Angola (n=35). A similar pattern was noted in England universities, where those 3 countries also had many students compared with other Central African countries. The only exception to this is people

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from Rwanda where there were a large number of students in England universities, but not in West Midlands universities. When compared with Nigeria, the African country with the largest number of students studying in the UK, the number of students from Central African countries is small (**Table 25**).

Table 25: Domicile of students studying in Higher Education institutions: West Midlands, England, and the UK, 2021 to 2022

Country	Students in West Midlands universities	Students in England universities	Students in the UK universities
Angola	35	255	275
Burundi	5	25	30
Cameroon	60	410	520
Central African Republic	0	5	5
Chad	0	10	10
DRC	10	80	90
Congo	0	30	30
Equatorial Guinea	5	10	10
Gabon	5	20	20
Rwanda	15	145	180
São Tomé and Príncipe	0	5	5
Zambia	40	450	545
Total	**175**	**1,445**	**1,720**
As a comparator: Nigeria	*3,985*	*34,010*	*44,195*

Source: HESA (2022)

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Note: Please note that this data includes rounded totals to the nearest 5

2.5.1.3 Highest Level of Qualification

Census data is not available on the highest level of qualification by local or regional level. In the interest of this, Central African born populations living in England and Wales qualification status is compared with England and Wales averages. A higher percentage of Central African born people (49%) had Level 4+ qualifications than the England and Wales average (34%) (**Figure 11**)[n]. Rates of those with Level 1, 2, and 3 qualifications were similar in Central African born people compared with England and Wales averages.

Figure 11: Highest level of qualification amongst Central African born people: England and Wales, 2021
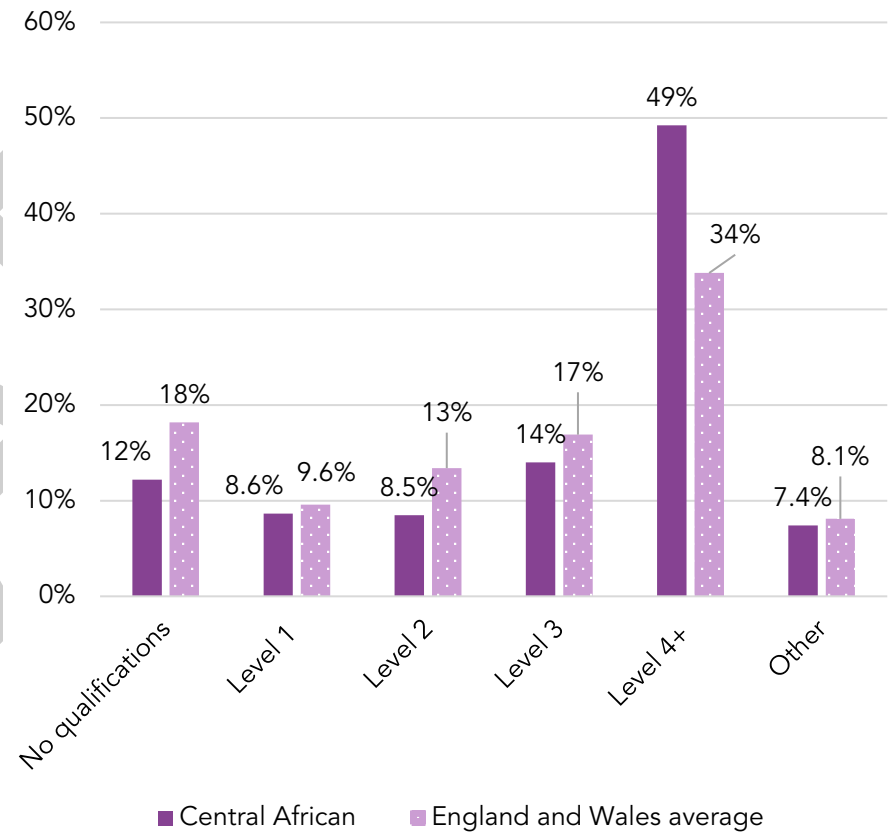
Source: ONS (2023)

Note: 190 category dataset for country of birth

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[n] See **Appendix 3.9** for full data table

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Table 26 shows the highest qualification level among those from distinct Central African countries in 2021. Rates of those with Level 4+ qualifications were highest amongst people from Cameroon (63%) and lowest amongst people from Other Central and Western African countries (34%) and Angola (39%). People from those 2 country groups had higher percentages of people qualified in apprenticeships, vocational, or work-related qualifications (Other =11%, Angola =11%).

Table 26: Highest level of qualification by country of birth: Central African countries of birth, 2021

Country of birth	None (%)	Level 1 (%)	Level 2 (%)	Level 3 (%)	Level 4 (%)	Other* (%)
Angola	18	12	7.9	13	39	11
Cameroon	7.5	4.4	6.4	14	63	5.3
Congo	15	9.7	11	12	44	8.4
DRC	14	10	8.7	14	45	8.2
Other Central and Western Africa	23	12	7.8	11	34	11
Burundi	11	7.5	8.9	16	51	6.7
Rwanda	8.1	5.5	7.9	17	57	4.8
Zambia	4.9	6.0	9.8	16	59	4.2

Source: ONS (2023)

Note: 190 category dataset for country of birth

*Apprenticeships, vocational or work-related qualifications

2.5.2   Employment and Economic Activity

2.5.2.1 Economic Activity

Rates of economic activity status by country of birth were captured within the 2021 census. Rates of those that are economically active were higher in Central African born people living in England and Wales, compared with national averages. 64% of people born in Central African countries were employed, while 8.1% were economically active but unemployed (including full-time students). This compares to 57% and 3.4% respectively, within the England and Wales average (**Figure 12**)°.

° See **Appendix 3.10** for full data table

Figure 12: Rates of economic activity in Central African born people: England and Wales, 2021

Source: ONS (2023)

Legend:
- ■ Economically inactive
- ▨ Economically active: Unemployed (including full-time students)
- ■ Economically active: Employed
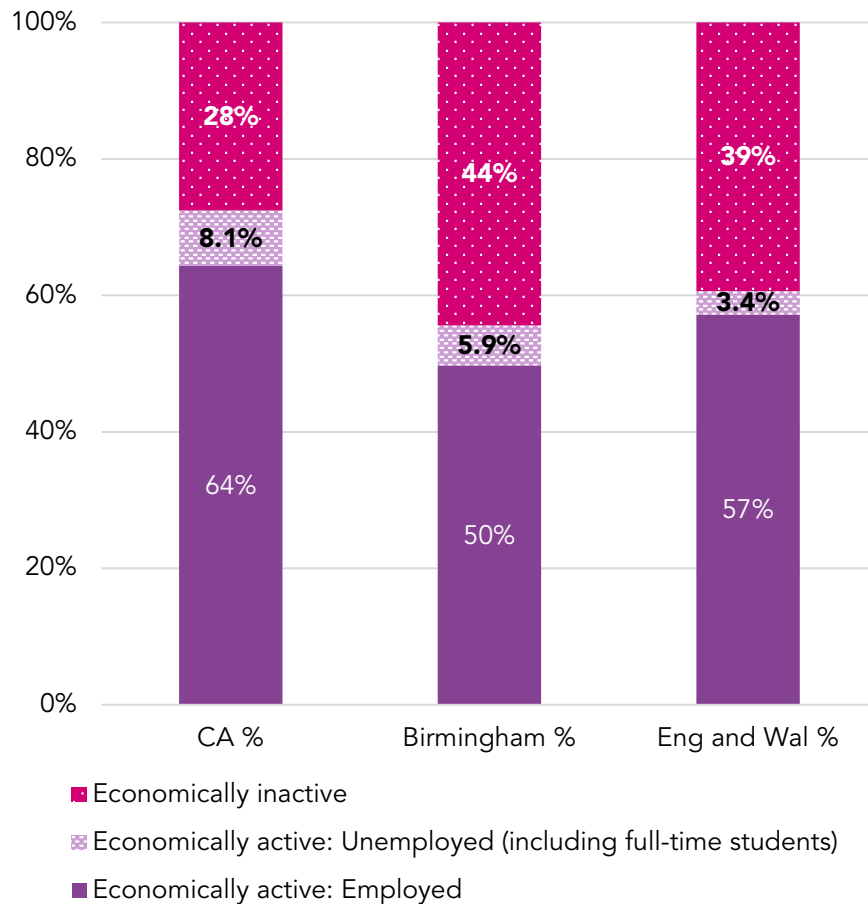
CA = Central African born people

Note: 190 category dataset for country of birth. "does not apply" was removed from this dataset as it may have included groups that could not be economically active (e.g., children).

Figure 13 shows economic activity rates within Central African born people as shown in the 2021 census[P]. The highest rates of economically active: in employment were from people born in Zambia (70%), Rwanda (70%), and Cameroon (69%). The highest rates of economically active: unemployed were in people born in Congo (12%), and the DRC (9.9%). Both countries also had the highest rates of those economically inactive (31% and 33% respectively).

[P] See **Appendix 3.11** for full data table

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Figure 13: Economic activity rates within Central African born people: England and Wales, 2021
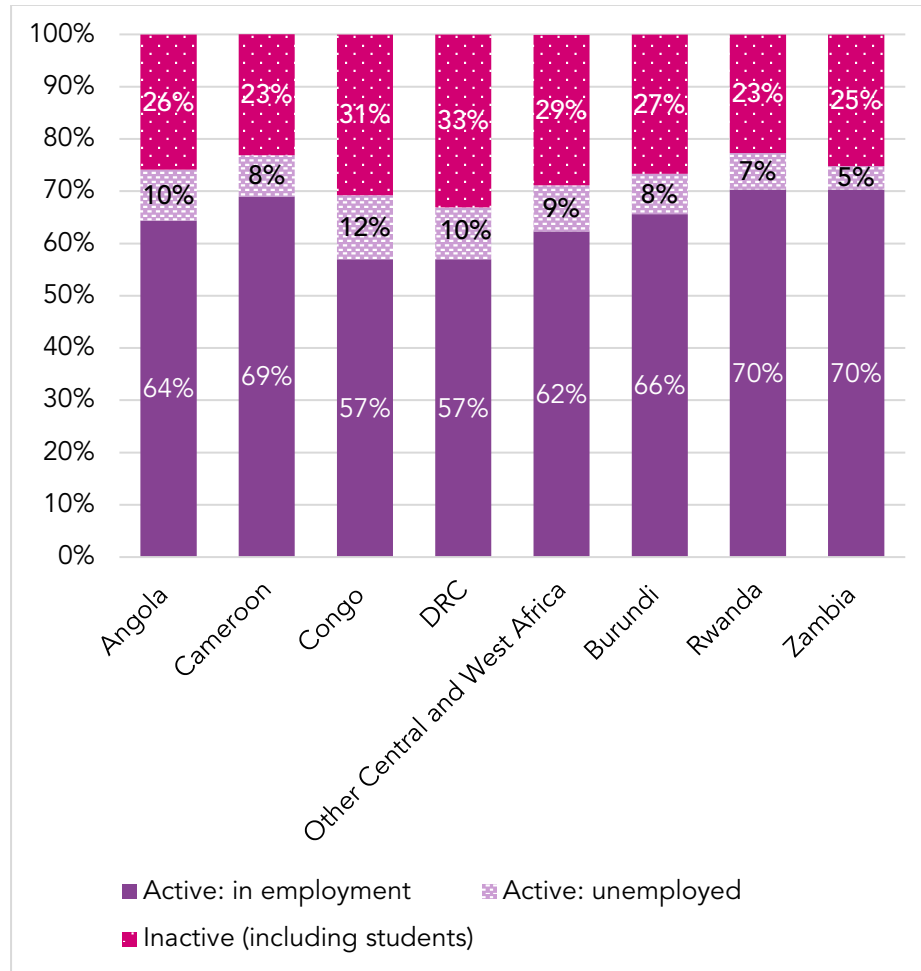
Source: ONS (2023)

Note: 190 category dataset for country of birth
Note: "does not apply" was removed from this dataset as it may have included groups that could not be economically active (e.g., children).

2.5.2.2 Economic Inactivity

The 2021 census also holds information on economic inactivity by country of birth. In the 12-category dataset, economic inactivity is split into 5 categories:

1. Retired
2. Student
3. Looking after home or family
4. Long-term sick or disabled
5. Other

Table 27 shows the types of economic inactivity within Central African born people compared with Birmingham and England and Wales averages. The census 2021 showed that amongst Central African born people living in England and Wales, the highest economic inactive group were students (26%) and looking after home or family (23%). The highest for the Birmingham average was retired (35%), and students (23%), which is also noted in England and Wales (retired = 55%, student = 14%), albeit at smaller percentages.

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Table 27: Types of economic inactivity within Central African born people: England and Wales, 2021

Economic inactivity status	Central African (%)	Birmingham (%)	England and Wales (%)
Retired	18	35	55
Student	26	23	14
Looking after home or family	23	19	12
Long-term sick or disabled	13	12	11
Other	21	12	8.0

Source: ONS (2023)

Note: 190 category dataset for country of birth

Note: "does not apply" was removed from this dataset as it may have included groups that could not be economically active (e.g., children).

2.5.2.3 Occupation

At the time of writing, the 2021 census does not allow for exploration of country of birth by occupation at a local Birmingham level. According to the 2021 census, there was a higher percentage of Central African born people living in England and Wales working in elementary occupations (20%), compared with Birmingham and England and Wales averages. There is also a higher percentage of Central Africans in caring, leisure, and other service occupations.

Rates across all Central Africans, the Birmingham average, and the England and Wales average for professional occupations was similar. Rates of all occupations across groups is shown in **Table 28**.

Table 28: Occupation within Central African born people: England and Wales, 2021

Occupation	Central African (%)	Birmingham Average (%)	England and Wales Average (%)
Managers, directors and senior officials	7.9	9.3	13
Professional occupations	20	21	20
Associate professional and technical occupations	9.4	11	13
Administrative and secretarial occupations	6.5	9.3	9.3
Skilled trades occupations	4.5	8.3	10
Caring, leisure and other service occupations	19	10	9.4
Sales and customer service occupations	6.2	8.2	7.5
Process, plant and machine operatives	6.6	8.7	7.0
Elementary occupations	20	13	11

Source: ONS (2023)

Note: 190 category dataset for country of birth

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2.5.2.4 Central Africans in the NHS

It has been reported that the proportion of those working in the NHS with an African nationality has risen from 1.9% in 2016 to 2.3% in 2020 and to 3.1% in 2022 (Baker, 2022). This is a total of 41,330 workers. The percentages of hospital doctors that are African has risen from 5.0% to 6.6% from 2020 to 2022. Nurses and health visitors has risen from 2.5% to 4.1% in the same period. Of staff with an African nationality, a large total were from countries that are not classified as Central African, with 15,439 Nigerians and 4,581 Ghanian; this was a total of 48% of the total African NHS workers. However, there were also 536 Zambian NHS health workers (1.3% of the total African NHS workers), 393 Cameroonian (0.95%), 223 Congolese (0.53%), and 100 Central African (0.24%) (people from the Central Africa Republic)[q].

2.5.3   Deprivation

2.5.3.1   Deprivation by Middle Layer Super Output Area (MSOA)

The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation in England and is calculated using outputs from the Indices of Deprivation (IoD) domains. There are seven distinct domains of deprivation, including income, employment, crime, barriers to housing and services and living environment. An IMD decile output of 1 demonstrates a neighbourhood which is in the 10% most deprived in the country (MHCLG, 2019).

Table 29 shows the IMD score of the 10 most populated MSOAs within Central African born people. More people within live in areas of deprivation compared with other areas nationally. The top 10 most populated MSOAs by Central African born people are all in the top 20% most deprived nationally. This would suggest that a high percentage of Central African born people living in Birmingham live in highly deprived areas. It is, however, important to note that while some MSOAs are more deprived than others, some people can live in the most deprived areas and not be deprived themselves, while some can experience deprivation despite living in the least deprived areas.

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[q] The report only showed the top 102 nationalities of a total of 214 nationalities

Table 29: IMD score of 10 most populated MSOAs within Central African born people, Birmingham, 2021

Middle-layer super output area (MSOA)	Total Central African born populations	IMD Score	2019 Decile (Where 1 is 10% Most Deprived Nationally)
North Central & Dartmouth Circus	158	39	2
Five Ways North	142	45	1
Hockley & Jewellery Quarter	133	49	1
Winson Green & Gib Heath	124	53	1
Quinton East	112	49	1
Gravelly Hill & South Erdington	93	53	1
Nechells	86	56	1
Birches Green & Bromford East	80	35	2
Birchfield West	78	50	1
Ladywood - Summer Hill	78	32	2

Source: ONS (2023)

Note: 190 category dataset for country of birth

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r Level 2 qualifications are GCSE grades 9 to 4 or A* to C or equivalent

Deprivation can also be inferred by varying dimensions, including education, employment, health or disability, and housing. For the 2021 census, this was not available for country of birth for the 190-category dataset. Instead, the 60-category dataset was used, and the Central African community was selected as 'Other Central and Western African' (ONS, 2023).

2.5.3.2   Deprivation by education

The 2021 census allows to investigate the percentage of households that are deprived by varying factors. A household is classified as deprived in the education dimension if no one has at least a level 2 education[r] and no one aged 16 to 18 years is a full-time student. There was a lower percentage of Central African born people (13%) living in England and Wales deprived by the education dimension compared with the England and Wales average (15%).

2.5.3.3   Deprivation by employment

A household is classified as deprived in the employment dimension if any member, not a full-time student, is either unemployed or economically inactive due to long-term sickness or disability. A higher percentage of Central African (20%) born people living in England and Wales were deprived by the employment dimension compared with the England and Wales average (13%).

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2.5.3.4 Deprivation by health

A household is classified as deprived in the health dimension if any person in the household has general health that is bad or very bad or is identified as disabled under the Equality Act (2010). There was a lower percentage of people deprived by health amongst Central African born people (22%) compared with the England and Wales average (35%). This is likely to be due to there being more older people within England and Wales averages compared with Central African born populations (for more information *see section 1.5.2*).

2.5.3.5 Deprivation by housing

A household is classified as deprived in the housing dimension if the household's accommodation is either overcrowded, in a shared dwelling, or has no central heating. A higher percentage of Central African born people were deprived by the housing dimension (37%) compared with the England and Wales average (9.5%). This is likely due to the higher percentage of Central African born people living in overcrowded houses as shown in *section 2.5.4.2*)

2.5.4 Housing

2.5.4.1 Tenure

Housing tenure refers to the ownership structure under which people live in their accommodation. The 2021 census reveals housing tenure by country of birth (ONS, 2023). It is important to note that the below figures from the census do not include Central African residents in communal establishments, such as university halls of residence or care homes.

The 2021 census does not allow for investigation for housing tenure with the 190-category dataset. The data is available for the 60-category dataset, so the Central African population is captured as 'Other Central and Western Africa' (**Table 30**). A smaller percentage of Central African born people living in England and Wales owned their property outright (4.3%) compared with England and Wales average (27%). Conversely more people privately rented or lived rent free (33% vs 21%) and a higher percentage socially rented (50% vs 17%).

Table 30: Housing tenure by country of birth, England and Wales: 2021

Housing tenure	Central African (%)	England and Wales (%)
Owned: Owns outright	4.3	27
Owned: Owns with a mortgage or loan or shared ownership	13	36
Rented: Social rented	50	17
Private rented or lives rent free	33	21

Source: ONS (2023).

Note: 60 category dataset used for country of birth

2.5.4.2 Overcrowding

Households are classified as overcrowded if there are more people in the household than the recommended number of bedrooms, according to ONS suggestions. According to the 2021 census, 9.4% of all households in Birmingham were overcrowded (occupancy

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rating for bedrooms of -1 or less). **Table 31** shows that there was a higher percentage of Central African born people living in an overcrowded household (30%), compared with the England and Wales average (6.5%).

Table 31: Occupancy rating by country of birth, England and Wales: 2021

Occupancy rating	Central African (%)	England and Wales (%)
0 or more	70	94
-1 or less	30	6.5

Source: ONS (2023)

Note: 60 category dataset used for country of birth

2.5.5   Physical Health

2.5.5.1   General Health

The 2021 census data captures how people define their own health, from very good health to very bad health, by country of birth. **Figure 14** shows the general health score within Central African born populations in England and Wales, compared with Birmingham and England and Wales averages[s]. In the 2021 census, there was a higher percentage of Central African born people (50%) with very good health compared with Birmingham (48%) and England and Wales (48%) averages. Conversely, the percentages of those in bad and very bad health was higher in local and national averages compared with the Central African born population.

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[s] See **Appendix 3.12** for full data table

Figure 14: General health score within Central African born populations, compared with Birmingham and England and Wales averages, 2021
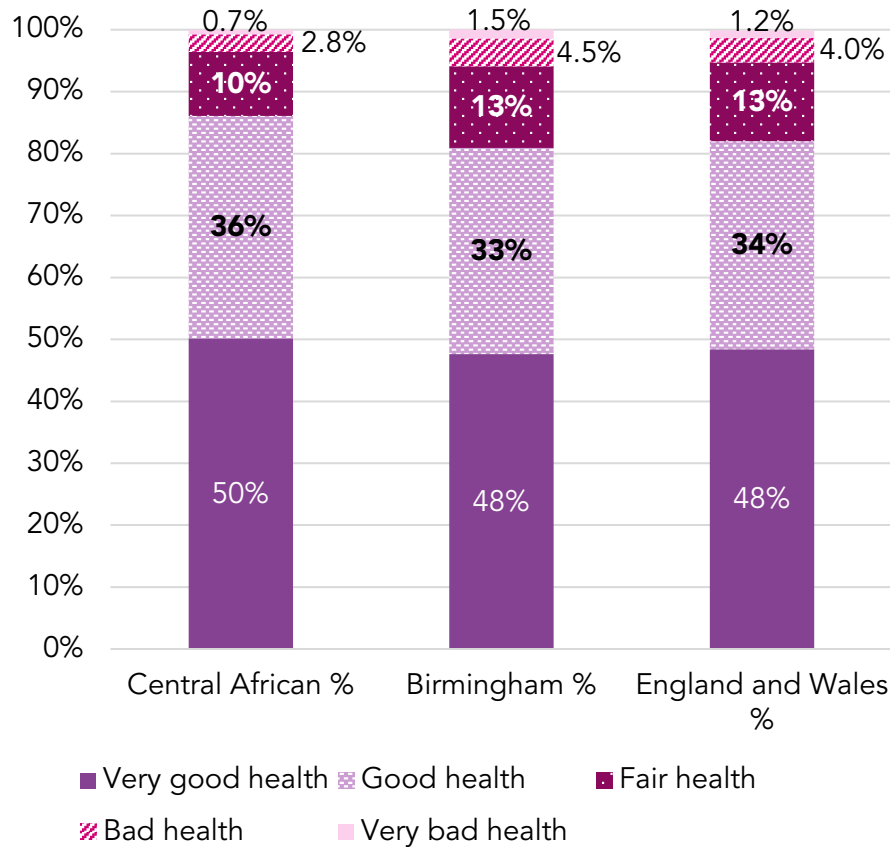
Source: ONS (2023)

Note: 190 category dataset for country of birth

2.5.5.2 Diabetes

Diabetes refers to the condition where blood glucose levels are too high and can be caused by the body not producing insulin (type 1) or producing insufficient or ineffective insulin (type 2) (Diabetes UK, Nd). Diabetes UK (2021) suggest that more than 4.9 million adults in the UK in 2021 were living with diabetes; 850,000 of whom were undiagnosed. Type 2 diabetes contributes to around 90% of all cases of diabetes. In Birmingham (2017 and 2018) diabetes prevalence is around 8.6%, compared with 6.8% nationally in the UK (Birmingham City Council, 2019).

There is no data available for the rates of diabetes for Central Africans living in the UK. **Table 32** shows the data from Wise Voter (2023) that shows the rates of diabetes in Central African countries and their world ranking. Diagnosed diabetes is similar to the UK average in all Central African countries, except from Zambia where rates are higher (12% compared with 6.3% in the UK average). Rates of diabetes are higher within South Asian ethnicities (Diabetes UK, Nd). As Zambia has a larger proportion of people with Indian and Asian ethnicity (as shown *in section 1.5.1)*, this may explain why rates of diabetes are higher in Zambia compared with other Central African countries.

Table 32: Percentages of those with diagnosed diabetes: Central African countries with world ranking, 2020

Country	Diabetes Rate (%)	Rank in World
Zambia	12	39
Burundi	6.5	120
Rwanda	6.5	124
Average Central African	6.2	N/A
Central African Republic	5.8	142
Chad	5.8	143
DRC	5.8	144
Cameroon	5.5	156
Congo	5.5	160
Equatorial Guinea	5.5	157
Gabon	5.5	158
São Tomé and Príncipe	5.5	161
Angola	4.6	173
For context: United Kingdom	6.3	132

Source: Wise Voter (2023)

It is important to note that of all WHO regions, the African region has the highest rates of undiagnosed diabetes (WHO Africa, 2022b). The WHO suggests that this is due to lack of testing facilities and equipment, an inadequate number of trained health personnel, poor access to health facilities and a lack of awareness about diabetes. This may mean that the percentages of those with diagnosed diabetes shown in **Table 32** are lower than the true rate of those living with diabetes in Central African countries. A systematic review of 42 studies completed in 2018 has also revealed that management of type 2 diabetes in sub-Saharan African countries is poor (Stephani, Opoku, and Beran, 2018). It is therefore important to ensure that improving knowledge of diabetes, including risk factors associated with diabetes and the importance of ensuring that diabetes is diagnosed and well-treated, is given to Central African populations living in the UK.

2.5.5.3   Hypertension

Hypertension, also known as high or raised blood pressure, increases the risk of heart, brain, kidney, and other diseases. It is estimated that 46% of adults with hypertension are unaware of their condition. Hypertension can be affected by diet, physical activity, smoking, alcohol consumption and weight (WHO, 2021b).

Blood pressure readings are composed of two numbers, the systolic pressure (top number) and the diastolic pressure (bottom number). Hypertension is defined as a blood pressure reading of more than or equal to 40/90 mmHg (or receiving antihypertensive drug treatment) and improving hypertension control, including among those at high risk (<130 mmHg systolic BP), is key to reducing deaths and preventing CVD-related events. It is estimated that Birmingham has around 12% of its registered population on the hypertension register, which compares to 14% nationally across the UK (Birmingham City Council, 2019).

There is no research or data on hypertension within the Central African community in the UK or comparable countries. The WHO collects data on hypertension; however, it does not publish findings per country. The WHO African region has the highest prevalence of

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hypertension (27%) of all WHO regions (WHO, 2023e). According to the Global Nutrition Report (2023), in the year 2022, all 9 countries included in their list of Middle Africa are off course for targets for raised blood pressure for both men and women. This indicates that hypertension is most likely an issue within Central African countries.

Rates of mortality within Central African countries also appear to be raised. The World Life Expectancy extracted data from the year 2020, from the WHO. They revealed that the Central African Republic has the 2nd highest global rate of hypertension-related mortality with 73.6 deaths per 100,000 (WHO, cited by World Life Expectancy, 2020). Other Central African countries were also ranked highly, with Zambia 6th at 56.2 deaths per 100,000 and Congo 12th with 52.3 per 100,000. Hypertension-related mortality was variable amongst genders, with Central African countries ranked higher amongst females compared with other countries worldwide. The high rate of hypertension-related mortality is likely caused by higher rates of hypertension, and a lack of available services to treat high blood pressure.

2.5.5.4   Cardiovascular Disease

CVD is one of the leading causes of death nationally, causing 24% of all deaths within the general population in England and Wales in 2019. CVD is the collective term for diseases affecting the circulatory system, such as the heart, arteries, and blood vessels. Diabetes increases the risk of CVD almost two-fold (The King's Fund, 2021).

CVD rates within Central African populations living in the UK are not available. There is also a lack of data on the prevalence of CVD within African populations. The World Heart Foundation (WHF) (Nd) reveals that in 2019, more than 1 million deaths were attributable to CVD in sub-Saharan Africa, which constituted for 5.4% of all CVD-deaths globally, and 13% of all deaths in Africa. The WHF also suggest that over half of all CVD deaths in Africa are caused by high blood pressure. This demonstrates the importance of managing blood pressure in reducing the risk of mortality within African (and Central African) populations.

The website World Life Expectancy has also extracted deaths attributable to coronary heart disease from WHO 2020 data. **Figure 15** shows the average rates of coronary heart disease-related mortality (per 100,000 people) was higher on average in Central African countries, compared with the United Kingdom[t]. Rates were highest within the Central African Republic and lowest within Rwanda. All rates of mortality are higher amongst males than females.

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[t] See **Appendix 3.13** for full data table

Figure 15: Rates of coronary heart disease-related mortality by gender (per 100,000) in Central African countries, 2020
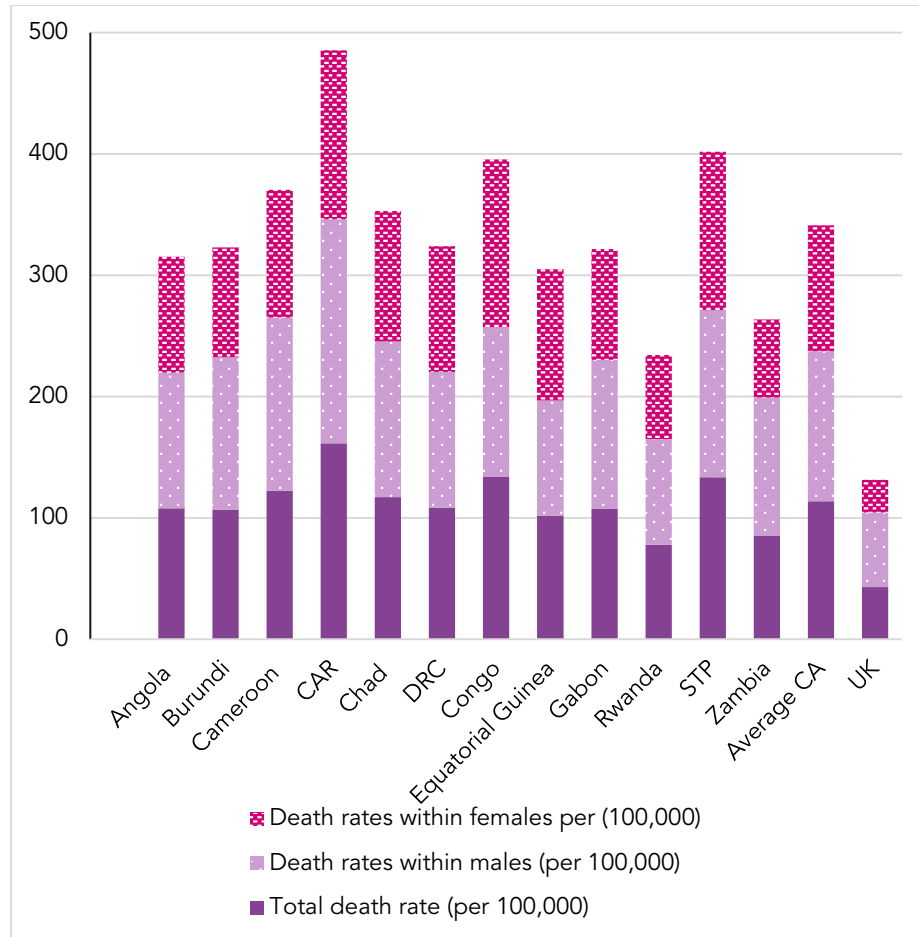
Source: WHO, cited by World Life Expectancy (2020)

2.5.5.5   Chronic Obstructive Pulmonary Disorder

Chronic Obstructive Pulmonary Disease (COPD) refers to a range of conditions affecting the lungs including emphysema and chronic bronchitis; COPD accounts for approximately 30,000 deaths annually within the UK (British Lung Foundation, Nd). Globally, COPD caused 3 million deaths in 2015, with 90% of these deaths occurring in low and middle-income countries. The main cause of COPD related mortality is smoking, followed by indoor and outdoor pollution and occupational dust and flames (WHO Africa, 2022c).

There is no available data for COPD or respiratory health for Central Africans living in the UK, or a comparable country. Overall, there is a paucity of evidence for the rates of COPD for people in Central African countries. An article in The Lancet has labelled COPD as a 'silent epidemic in Africa,' due to the "general lack of standardised epidemiological instruments and the need to do good quality post-bronchodilator spirometry, which requires considerable expertise and experience," (Salvi, 2015). This may explain why there is a lack of research for the rates of COPD in Central Africa, and Africa as a whole. Rates of COPD in Central African countries have been observed in 3 studies from the systematic review and meta-analysis of 27 countries in sub-Saharan Africa (Awokola *et al.*, 2022). COPD prevalence has been cited as being 2.4% in a population of 1,287 people from urban Cameroon, 18% in 337 people in rural Cameroon, and 28% in 379 cement factory workers in the DRC. This variability of COPD prevalence across studies indicates that there is still much more to learn about the true picture of COPD within Central Africa.

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A meta-analysis of 13 studies within African countries indicated strong evidence for risk factors for developing COPD (Njoku *et al.*, 2023). Risks (brackets indicate the magnitude of the risk) included prior TB (5.98 times the risk), smoking (2.8 times), and use of biomass fuel (1.52 times). Biomass fuel is often used within cooking, at times giving exposure to the fuel for 3 to 5 hours in poorly ventilated kitchens. According to Salvi, this may indicate why COPD in Africa is as common in women as men; the higher rates of smoking amongst men is balanced out by the high exposure to biomass fuel by women who tend to do the cooking (Salvi, 2015).

2.5.5.6   Cancer

Cancer is an illness when abnormal cells in the human body divide in an uncontrolled way with some cancers eventually spreading into other tissues across the body (Cancer Research UK, Nd). There are more than 200 different types of cancer, and 1 in 2 people in the UK will get cancer in their lifetime.

In the absence of available data for Central Africans living in the UK, or a comparable country, the WHO has published data on the incidence of cancer in Middle Africa (International Agency for Research on Cancer, 2020). In the year 2020, there were a total of 106,467 new cases of cancer in Middle Africa and 71,570 deaths related to cancer. **Table 33** shows the most common types of cancer for males, females, and both sexes. Gender-specific cancers were common within both genders, with 29% of new cases for males being prostate cancer. 30% of new cases for females were breast and 26% were cervix uteri cancers.

Table 33: Most common incidences of cancer: Middle Africa, 2020

Cancer	Male (% of new cases)	Female (% of new cases)	Both sexes (% new of cases)
Highest	Prostate (29)	Breast (30)	Breast (17)
2nd highest	Liver (9.2)	Cervix uteri (26)	Cervix uteri (15)
3rd highest	Colorectum (6.7)	Colorectum (4.5)	Prostate (13)
4th highest	Non-Hodgkin lymphoma (5.9)	Non-Hodgkin lymphoma (3.8)	Liver (5.7)
5th highest	Stomach (3.8)	Ovary (3.8)	Colorectum (5.4)

Source: International Agency for Research on Cancer, 2020

The rates of cancer incidence broken down per country are shown in **Table 34**. The overall age-standardised rates (ASR) of cancer incidence are lower on average in Central African countries (115.1 per 100,000 people) compared with the UK (296.1 per 100,000). The ASR within Central African countries are higher amongst women than men, which is the contrast of the rates in the UK. The Central African country with the highest incidence of cancer is Zambia with 150.8 cases per 100,000 people.

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Table 34: Age-standardised rates of cancer incidence per 100,000 population: Central African countries, 2022

Country	Total	Men	Women
Angola	1251	128	127
Burundi	1333	128	141
Cameroon	126	119	136
Central African Republic	99	94	108
Chad	100	88	113
DRC	102	102	105
Congo	84	93	82
Equatorial Guinea	108	100	125
Gabon	114	100	130
Rwanda	112	111	116
São Tomé and Príncipe	126	159	103
Zambia	151	164	152
Average Central African	115	115	120
For context: United Kingdom	296	310	286

Source: World Cancer Research Fund International (Nd)

According to the International Agency for Research on Cancer (2020), the age-standardized mortality rate mortality rate due to cancer within Middle Africa is 79 per 100,000 for males, 80 per 100,000 for females, and 78 per 100,000 for both sexes. **Table 35** shows the age-standardised rates of cancer mortality broken into specific Central African countries. The average ASR for Central Africa is lower than the UK average (81 per 100,000 vs 100 per 100,000). For males this is 83 per 100,000 compared with 113 per 100,000 and for females it is 82 per 100,000 versus 89 per 100,000. Rates of cancer mortality are highest in Zambia and Burundi.

It is worthy to note that the difference in ASR for cancer mortality smaller than the difference in cancer incidence when comparing Central Africa to the UK. A possible explanation for this may be that cancer incidence is better detected in the UK compared with Central Africa. Alternatively, it may suggest that more people diagnosed with cancer survive in the UK compared with Central Africa. This may be due to better access, availability, and quality of cancer treatment within the UK.

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Table 35: Age-standardised rates of cancer mortality per 100,000 population: Central African countries, 2022

Country	Total	Men	Women
Angola	84	90	83
Burundi	103	99	108
Cameroon	86	84	90
Central African Republic	76	74	81
Chad	76	69	84
DRC	74	76	76
Congo	57	66	52
Equatorial Guinea	75	73	82
Gabon	71	67	75
Rwanda	80	82	82
São Tomé and Príncipe	85	106	70
Zambia	102	112	102
Average Central African	81	83	82
For context: United Kingdom	100	113	89

Source: World Cancer Research Fund International (Nd)

The top 15 types of cancer that have caused mortality for each country can be found in Global Burden of Disease 2019 Cancer Collaboration(246).

2.5.6 Living with a Physical Disability

The 2021 census allows for investigations into who assessed their day-to-day activities as limited by long-term physical or mental health conditions (LTHC) or illnesses which are considered disabled. Under the Equality Act (2010), disability is classified as having a physical or mental impairment that has a 'substantial' and 'long-term' negative effect on your ability to do normal daily activities.

Table 36 shows the disability status of Central African born populations in England and Wales compared with Birmingham and England and Wales averages. In the 2021 census, a total of 11% of Central African born people identified as being disabled under the Equality Act, compared with 17% in Birmingham and 18% in England and Wales.

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Table 36: Disability status within Central African born populations: Birmingham and England and Wales averages, 2021

Disability	Central African (%)	Birmingham (%)	England and Wales (%)
Disabled under the Equality Act: Day-to-day activities limited a lot	4.7	8.1	7.5
Disabled under the Equality Act: Day-to-day activities limited a little	6.5	9.2	10
Not disabled under the Equality Act: Has long-term physical or mental health condition but day-to-day activities are not limited	5.0	5.1	6.8
Not disabled under the Equality Act: No long-term physical or mental health conditions	84	78	76

Source: ONS (2023)

Note: 190 category dataset for country of birth

Of those who identified as being disabled under the Equality Act, Central African born populations living in England and Wales appeared to be less affected on a day-to-day basis than Birmingham and national averages. **Figure 16** shows that 42% of the Central African born people who identified as living with a disability under the Equality Act felt that their day-to-day activities were limited a lot, which is lower than England and Wales (43%) and Birmingham (47%)[u].

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[u] See **Appendix 3.14** for full data table

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Figure 16: Day-to-day activities limited by disability, within Central African born populations, compared with Birmingham and England and Wales averages, 2021

- Disabled under the Equality Act: Day-to-day activities limited a lot
- Disabled under the Equality Act: Day-to-day activities limited a little
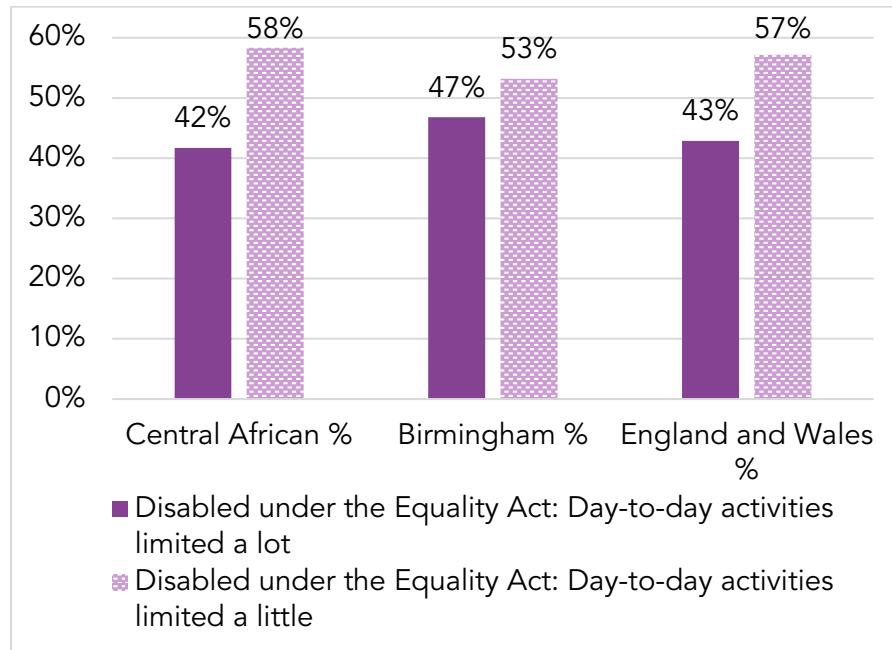
Source: ONS (2023)

Note: 190 category dataset for country of birth

2.5.7   Access to Services

There is no information on how Central Africans access services when living in the UK. Throughout the Community Health Profile, it has been identified that many healthcare services are lacking in provision, staff, and facilities. Examples of this are displayed in sections *2.2.1* on Mental Health and *2.5.5.2* on Diabetes. It is important to be mindful that some healthcare services and provisions will be better within some Central African countries than others, while also being better in urban than rural areas. Within their Migrant Health Guides, OHID (2023a) suggest that it is important to make sure upon entry to the UK, Central African communities are:

- Aware of how the NHS works.
- Aware of their entitlements to healthcare and screening (including maternity care).
- To ensure that all people are correctly screened and up to date with national immunisation schedules.

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2.6   Protect and Detect

Key Findings

- There is a lack of cancer screening across Central Africa. Of the Central African countries included in this profile, only Rwanda and Zambia had an existing cervical cancer screening program in 2021.

- There appears to be a lack of sexual health literacy within Central Africans, albeit there is weak evidence for this. A systematic review of 74 studies from 35 African countries that included Central African countries found that only 67% of respondents responded yes to the question "does using a condom reduce the risk of HIV transmission?"

- The prevalence of HIV is estimated as higher in all Central African countries, compared with the UK. According to UNAIDS data, in 2021, Zambia had the highest prevalence of HIV at 6.8% of their population, followed by Equatorial Guinea (4.1%), and Gabon (2.0%). In the Congo, Equatorial Guinea and Angola, knowledge of HIV status is very low. The rates of those that know about their positive HIV status is 25% in Congo, 51% in Equatorial Guinea, and 57% in Angola.

- There are higher incidences of diseases tuberculosis (from 56 to 540 per 100,000), hepatitis, typhoid, malaria, and Mpox in many Central African countries.

- HPV vaccinations are not available in the majority of Central African countries – they are only available in Cameroon, Rwanda, and Zambia.

2.6.1   Screening

2.6.1.1   Cancer Screening

Cancer is one of the major causes of death in the UK, with more than 1 in 4 deaths in the UK being attributed to cancer in 2019 (Cancer Research UK, Nd). Diagnosis at an early stage of cancer development can improve survival chances and health interventions, such as screening programmes, are an important part of efforts to reduce cancer mortality.

Screening can also contribute to the prevention of cervical and colorectal cancers by detecting precancerous growths that can be swiftly removed. The main screening programmes offered in the UK are:

- **Cervical screening**: offered to all women and people with a cervix aged 25 to 64 to check the health of cells in the cervix. It is offered every 3 years for those aged 25 to 49, and every 5 years from the ages of 50 to 64. Cervical screening helps identify pre-cancerous cell changes in the cervix. These changes can be treated, preventing cancer from developing. Cervical screening is believed to save up to 5,000 lives a year in the UK (Marlow, Wardle, and Waller, 2015).

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- **Breast screening:** offered to women aged 50 to 70 to detect early signs of breast cancer. Women over 70 can self-refer as well. Breast screening prevents approximately 1,300 women from dying of breast cancer every year in the UK. (Marmot, Cameron, and Dewar, 2012). Uptake of breast cancer screening is defined as the proportion of women invited who attend from screening within 6 months of their invitation.
- **Bowel cancer screening for colorectal cancer**: offered to everyone aged 60 to 74, using a home test kit every 2 years. Colorectal cancer screening can prevent cancer through the detection and removal of precancerous growths and detect cancer at an early stage when treatment is usually more successful.

There is no research on rates of cancer screening for Central African communities living in the UK. The rates of cancer screening are also poorly reported within Central African countries. Of the Central African countries included in this profile, only Rwanda and Zambia had an existing cervical cancer screening program in 2021 (WHO, 2022c). Additionally, a systematic review published in 2022 found that there was no national breast cancer screening programme for any country in sub-Saharan Africa (Martei, Dauda, and Vanderpuye, 2022). Overall, this would suggest that many Central Africans are not appropriately screened for cancers within Central African countries. Therefore, upon entry to the UK, it is important to ensure that Central Africans receive screening for cancer as per the national guidelines. It is important to note that 1 in 4 Black men will get prostate cancer in their lifetime, compared with 1 in 8 White men (Prostate Cancer UK, 2023). Although there is no screening programme for prostate cancer in the UK, awareness should be raised amongst Central Africans of Black ethnicity to their increased risk of getting prostate cancer (please *see section 1.5.1* Ethnicity for information on the ethnicity of Central African communities in England and Wales). This is particularly noted due to the high rates of prostate cancer incidence amongst men in Central African countries identified within *section 2.5.5.6* on Cancer.

2.6.1.2   NHS Health Checks

The NHS Health Check is a health check-up for adults in England aged 40 to 74, that is designed to spot early signs of stroke, kidney disease, heart disease, type 2 diabetes, and dementia. As outlined in *section 2.5.7*, many Central Africans have poorer access to healthcare in their host country compared with the UK. NHS Health Checks may therefore be essential to diagnose non-communicable diseases amongst Central Africans when they migrate to the UK, helping to fill the gap in healthcare provisions that they experienced before moving.

2.6.2 Sexual Health

2.6.2.1   Sexual Health Behaviours

The African Health and Sex Survey was an online survey of Black African and Black British people (633 women and 393 men) living in England conducted between September 2013 and January 2014 (Bourne, Reid, and Weatherburn, 2014). In the survey 8.1% of participants were born in a Central African country, therefore caution should be applied when interpreting these findings to the whole Central African community. **Table 37** reports the proportion of

respondents by country of birth and gender as well as by gender of sexual partners. 63% had a regular sexual partner, 25% of whom were HIV sero-discordant (mixed HIV status couple) or potentially discordant. 12% of the entire sample indicated they did not always use a condom during sexual intercourse with a regular partner whose HIV status they were either unaware of or who they knew to have a different HIV status to themselves.

Table 37: African Health Survey respondents by country of birth, gender, and gender of sexual partners, 2013 to 2014

Country of Birth	Female (%)	Male (%)
United Kingdom	21	14
Zambia	3.5	3
Congo	1.8	3.2
Cameroon	0.7	2.4
Angola	1.2	1.1
Zimbabwe	23	19
Nigeria	13	16
Ghana	4.1	6.5
Kenya	4.1	5.1
Uganda	4.0	4.9
South Africa	2.3	3.5
Malawi	3.3	1.4
Jamaica	2.2	0.8
Somalia	1.3	0.8
Ivory Coast	0.5	1.9
Sierra Leone	1.0	1.1
Opposite sex partners only	69	73
Same sex partners only	1.7	5.9
Both same and opposite sex partners	2.5	5.1
No sexual partners	27	16

Source: Bourne, Reid, and Weatherburn (2014)

In the same survey, 24% of respondents answered no to the question "Are you currently happy with your sex life?" Of those who answered no, the most common potential facilitators for improved sexual

happiness were feeling more emotionally connected during sex (38%), having better quality sex (35%), having more sex with the partner I have (25%) and feeling more confident about sex (21%).

When looking at African countries, there is moderate evidence that suggests that there is a lack of sexual health literacy. A systematic review of 74 studies from 35 African countries that included Central African countries found that only 67% of respondents responded yes to the question "does using a condom reduce the risk of HIV transmission?" (Badawi, M. M., *et al.*, 2019). The question "is sexual contact a possible route of HBV transmission?" was answered yes by only 43% of respondents in five countries. For both questions, there were wide ranging confidence intervals which suggests disparities across countries and some countries being more aware of sexual health than others. *It must be highlighted though that the research included some African countries that are not Central African and therefore caution must be drawn when concluding these findings to specifically Central Africa.*

2.6.2.2   Human Immunodeficiency Virus

The prevalence of HIV is estimated as higher in all Central African countries, compared with the UK (**Table 38**). According to UNAIDS data, in 2021 Zambia had the highest prevalence of HIV at 6.8% of their population, followed by Equatorial Guinea (4.1%), and Gabon (2.0%). This is compared to 0.1% prevalence within the UK.

In December 2020, UNAIDS announced the 95-95-95 targets to be reached by 2025: that 95% of all people living with HIV would know their HIV status, 95% of all diagnosed persons with HIV would receive antiretroviral therapy (ART) and that 95% of people receiving ART would be virally suppressed (Frescura *et al.*, 2022). 2021 UNAIDS data indicates that these targets have been reached in São Tomé and Príncipe but none of the other Central African countries. In the Congo, Equatorial Guinea and Angola, knowledge of HIV status is very low. The rates of those that know about their positive HIV status is 25% in Congo, 51% in Equatorial Guinea, and 57% in Angola.

Table 38: Number of people living with HIV, percentage aware of HIV status and percentage receiving ART in the 12 Central African countries, 2021

Country	People living with HIV (2021) (%)	Know their HIV positive status (%)	ART Coverage (%)
Angola	315,100 (0.9)**	57	41
Burundi	79,600 (0.6)	93	93
Cameroon	497,300 (1.8)	81	78
Central African Republic	83,400 (1.5)	69	67
Chad	109,800 (0.6)	79	75
DRC	541,800 (0.6)	82	82
Congo	130,800 (2.1)	25	23
Equatorial Guinea	66,500 (4.1)	51	41
Gabon	46,700 (2.0)	73	54
Rwanda	227,200 (1.7)	94	93
São Tomé and Príncipe	895 (0.4)	100	100
Zambia	1,300,000 (6.8)	91	90
Total or average	**3,399,095 (total)**	**75% (average)**	**70% (average)**
United Kingdom	95,900 (0.1)	95%	99%*

Source: UNAIDS (2023)

* *It is unclear the value of this figure to 1 decimal place.*
** *There may be rounding errors within calculations*

It is important that testing for HIV remains a priority for people in the UK, ensuring that the UNAIDS 95-95-95 target is met. This is particularly noted for Central African communities where testing and knowledge of HIV status is low, as it is important to administer effective treatment and reduce the rate of transmission.

2.6.2.3   Other Sexually Transmitted Infections

There is no information on the rates of other sexually transmitted infections (STIs) for Central Africans living in the UK, or in a comparable country. Research across Central Africa is scarce, however there are research studies which indicate that the rate of STI incidence is relatively high. A sample of 2,692 people from African countries which included Zambia found the prevalence of chlamydia to be 12% and gonorrhoea to be 4% (Stewart, *et al.,* 2020). When looking at the whole African region, in 2012, there were 63 million people with curable STIs chlamydia, gonorrhoea, syphilis, and trichomoniasis (WHO, 2016). This suggests a lack of treatment for STIs which will have contributed to further transmission in the last 10 years.

2.6.3   Other Infectious Diseases

2.6.3.1   Tuberculosis

In 2020, there were 548 TB case reports to the PHE Enhanced Tuberculosis Surveillance system (ETS) for individual's resident in the West Midlands (UKHSA, 2020). The West Midlands has higher rates

of TB than England as a whole. Case numbers decreased in 8 out of 14 local authorities, with the largest reduction in numbers observed in Birmingham (189 cases versus 212 in 2019). Individuals with a country of birth outside of the UK accounted for 69% of people with TB in the West Midlands in 2020 (365 out of 526) and experienced a rate of TB 13 times higher than the rate among UK-born individuals. TB admissions in Birmingham are shown in **Figure 17** (Birmingham City Council, 2012).

Figure 17: Map of Birmingham showing the differing rates of TB admissions in electoral wards, 2005 to 2008
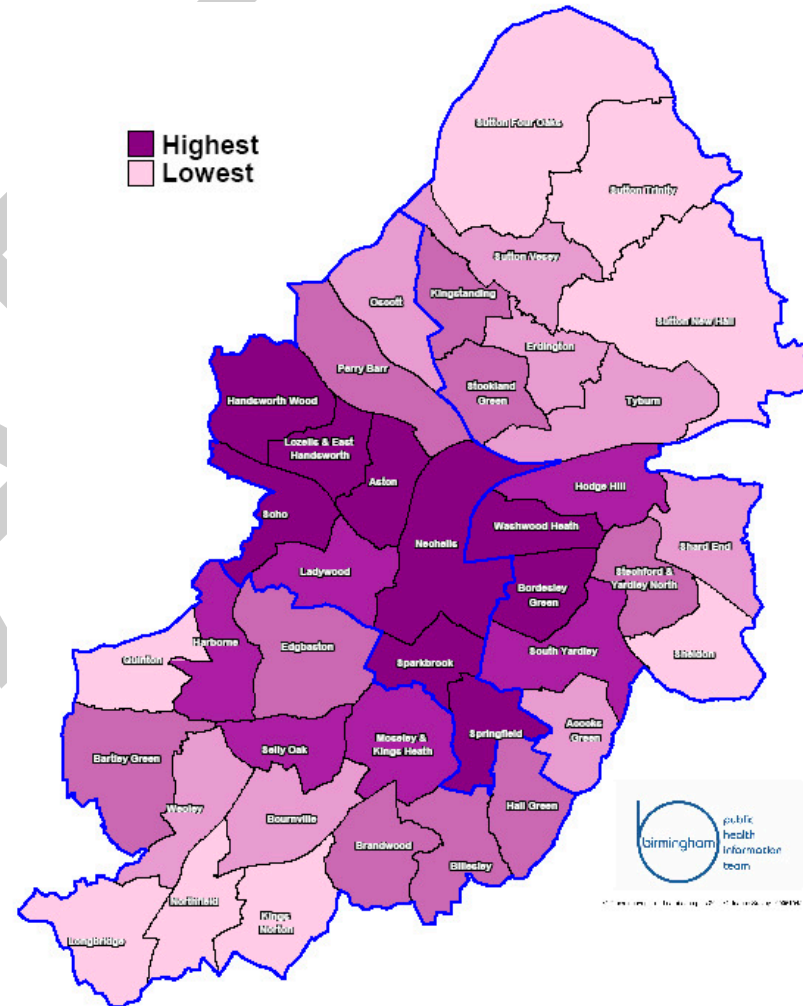
Source: Birmingham City Council (2012)

Table 39 shows TB cases and incidence rates for the 12 Central African countries for 2021. All 12 of the Central African countries are classified as high incidence countries (rates of 40 per 100,000 or greater) and 9 have rates greater than 150 per 100,000 (UKHSA, 2022a; WHO, 2022d).

Table 39: Number of TB cases and incidence rates by country, 2021

Country	Estimated rate per 100,000 population	Number of cases	Rate ≥150 per 100,000
Angola	325	112,000	Yes
Burundi	100	13,000	No
Cameroon	164	45,000	Yes
Central African Republic	540	29,000	Yes
Chad	140	24,000	Yes
DRC	318	305,000	Yes
Republic of Congo	370	22,000	Yes
Equatorial Guinea	275	4,500	Yes
Gabon	513	12,000	Yes
Rwanda	56	7,600	No
São Tomé and Príncipe	114	250	No
Zambia	307	60,000	Yes
United Kingdom	6.3	4,300	No

Source: UKHSA (2022a) and WHO (2022d)

OHID's Migrant Health Guides suggest for Central Africans migrating to the UK:

a. Screen all new entrants (including children) from (country) for TB according to National Institute for Health and Care Excellence (NICE) guidelines.
b. Refer to TB services promptly if screening is positive.
c. Seek advice, if you are a local TB service, from the MDR-TB Clinical Advice Service before treating patients from Central Africa for TB.
d. Maintain long term vigilance for symptoms of TB even if initial screening is negative.
e. Be aware that TB is a notifiable disease (OHID, 2023a).

2.6.3.2   Hepatitis

Many Central African countries have a higher prevalence of hepatitis[v] B and C than the UK, so it is worth considering screening for hepatitis, especially if other risk factors apply (OHID, 2023a). It is particularly of note to screen pregnant women, and to immunise infants of mothers who have a positive HepB3 diagnosis, raising awareness of the universal immunisation programme for HepB3 and the selective immunisation programme for higher risk groups.

2.6.3.3   Typhoid

OHID also highlighted that there is an increased risk of typhoid amongst Central African communities (OHID, 2023a). They noted the importance of ensuring that travellers to and from Central

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[v] Hepatitis is defined as a disease that causes inflammation of the liver.

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Africans have all typhoid immunisation and advice. It is also important to consider enteric fever (fever affecting the intestines) and how to prevent enteric fever.

2.6.3.4   Malaria

The risk of malaria in Central Africa is heightened, due to a presence of the species P. falciparum (the deadliest of five human malaria species) (OHID, 2023a). It is important to remember that malaria can be rapidly fatal, so to therefore test people who have travelled to and from the affected areas if they feel unwell.

2.6.3.5   Mpox

Mpox is a rare infection most commonly found in West or Central Africa. As Mpox is caused by a similar virus to smallpox, having the smallpox vaccine should give a good protection against Mpox. As of September 2022, the UKHSA views England to be in a Level 2 outbreak (3,439 confirmed cases) of Mpox with relatively low incidence defined to a sub-population (gay, bisexual and men who have sex with men), although Mpox spreads to anyone through close contact (UKHSA, 2022b). 3.0% (n=32) of confirmed cases in England were in people who were born in Africa.

2.6.4   COVID-19

The SARS-CoV-2 (COVID-19) virus spread widely in Africa, with a low severity that is likely to have contributed to it being under-reported in West and Central Africa (Msellati, *et al.,* 2022). However, there has been a disparity in vaccine delivery across Africa. In September 2022, data on WHO's COVID-19 dashboard suggested that 62% of the world's population had received at least two doses of the COVID-19 vaccine but only 22% of the population in Africa have received two doses. In Central Africa, due to its young population, the risk of COVID-19 was perceived by many Central Africans as low compared with other disease burdens, in addition to systemic barriers such as the cost of vaccination for health systems (even though the vaccine is provided for free) (Msellati, *et al.,* 2022).

A narrative review of data on COVID-19 vaccine acceptance rates were retrieved from surveys in 114 countries or territories (Sallam, Al-Sanafi, and Sallam, 2022). Data on vaccine rates were found from Angola, Cameroon, DRC, and Gabon. No data were found from Burundi, Central African Republic, Chad, Congo, Equatorial Guinea, Gambia and São Tomé and Príncipe. The lowest vaccine acceptance rate in Central Africa was reported in Cameroon (15%). Overall, COVID-19 vaccine acceptance rates were high in the DRC (56% to 59%), Gabon (67%), Rwanda (85%) and Zambia (66%).

2.6.5   Vaccination Programmes

2.6.5.1   HPV Vaccination

Human Papillomavirus (HPV) is the collective name given to a group of viruses; "high risk" HPV are linked to cervical cancer, anal cancer, genital cancers and cancers of the head and neck. The HPV vaccine can drastically reduce the likelihood of developing cervical cancer; incidence was reduced by 90% in those vaccinated between ages 12 and 13 and by 34% in those vaccinated from ages 16 to 18 (Cancer Research UK, 2021).

Data is not available that ascertains the rate of HPV vaccination amongst Central Africans living in the UK. **Table 40** shows the percentages of people who have received first and second doses of HPV vaccinations in Central African countries. HPV vaccinations are not available in the majority of Central African countries – they are only available in Cameroon, Rwanda, and Zambia. Only Rwanda has better coverage than the United Kingdom, where the 2nd dose is 73% in Rwanda and 59% in the UK. Overall, this suggests a need to ensure that Central Africans are offered the HPV vaccination as per national guidelines when migrating to the UK.

Table 40: Percentages of people who have received HPV vaccinations (first and second dose): Central Africa, 2023

Country	1st dose (%)	2nd dose (%)
Angola	[-]	[-]
Burundi	[-]	[-]
Cameroon	20	5
Central African Republic	[-]	[-]
Chad	[-]	[-]
Congo	[-]	[-]
DRC	[-]	[-]
Equatorial Guinea	[-]	[-]
Gabon	[-]	[-]
Rwanda	78	73
São Tomé and Príncipe	[-]	[-]
Zambia	45	33
United Kingdom	77	59

Source: International Agency for Research on Cancer (2023)

[-] = Data not available or vaccine not introduced in country

2.6.5.2   Influenza Vaccinations

There is no available data on influenza (flu) vaccinations for Central Africans living in the UK, or in a comparable country. There is also a lack of information for the rates of flu vaccines in Central Africa and Africa as a whole. Published in 2014, a cross-sectional study which had responses from 31 African countries reported on the availability of the flu vaccine within the region. Regions in Angola and Congo reported that the vaccine was not available, while Cameroon, the DRC, and Zambia did have a vaccine available (Duque, McMorrow, and Cohen, 2014). The picture however is still largely unknown across Africa. The priority should be to ensure that people are correctly vaccinated when living in the UK, as per national guidelines.

2.6.6 Sickle Cell Disease

Sickle cell diseases, such as sickle cell anaemia, are inherited lifelong health conditions that affect the red blood cells. When the family of both parents of a baby are Black African the risks of relevant haemoglobinopathies is 1 in 14 but remains high (1 in 100) if one of the parents is of Black African descent (Aspinall and Chinouya, 2016). There therefore is a heightened risk of sickle cell disease amongst Central Africans who are of Black African ethnicity.

Sickle cell disease is associated with shorter than typical life expectancy but depends on the severity of the disease. Many deaths

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associated with sickle cell disease are avoidable. In 2021, the All-Party Parliamentary Group on Sickle Cell and Thalassaemia (SCTAPPG) launched an inquiry into the care sickle cell patients received following a number of high-profile examples of failings in care for people with sick cell disease (Sickle Cell Society, 2021). The inquiry report indicates that sickle cell patients routinely receive substandard care, particularly on general wards and Accident & Emergency (A&E) departments. Many patients regularly needed to educate healthcare professionals about the basics of their condition whilst in acute pain and distress. They also often report not being believed about their pain, being disrespected, deprioritised, and not listened to. The inquiry indicated that a key factor was a lack of effective joined-up care as well as inadequate investment in sickle cell care and set-up a number of recommendations including revisions of NICE and Care Quality Commission (CQC) guidance and the development of an e-learning module to be mandatory for all healthcare professionals providing sickle cell care in high-prevalence areas (Sickle Cell Society, 2021).

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2.7   Ageing Well and Dying Well

Key Findings

- There is no data for live expectancy of Central Africans in the UK. International data from 2019 showed that life expectancy at birth varied from 53 (Central African Republic) to 73 (Cameroon). This is compared with 81 in the UK.

- There were also recorded differences in life expectancy by gender; life expectancy at birth among men and women ranged from 52 and 55 (Central African Republic) to 66 and 72 (São Tomé and Príncipe).

- A study within older adults in the Central African Republic and Congo found an increased prevalence of neuropsychiatric symptoms among people who had difficulties eating (1.89 times likelihood), had physical disability (2.00 times), were female (2.29 times), and had diagnosed dementia (8.13 times).

- One study based in Leicester engaged with participants of African and Caribbean heritage found that the majority of participants did not know about palliative care, and both the concept of 'palliative' and 'care' held potential for misunderstanding.

2.7.1   Life Expectancy

There is an absence of data on life expectancy within the Central African community living in the UK. Life expectancy at birth in the UK from 2018 to 2020 was 79.0 years for males and 82.9 years for females (ONS, 2021b). **Table 41** shows the life expectancy at birth in Central African countries in 2000 and 2019. Life expectancy was lower than the UK in all Central African countries. However, life expectancy has risen from 2000 to 2019 in Central African countries (WHO, Nd). The most notable increases have been seen in Burundi (46% increase), Rwanda (46%), and Zambia (40%). According to the Tracking Universal Health Coverage in the WHO African Region report (2022) life expectancy increases are likely caused by "improvements in the provision of essential health services, gains in reproductive, maternal, newborn and child health, as well as progress in the fight against infectious diseases - thanks to the rapid scale-up of HIV, TB, and malaria control measures from 2005" (Africa Renewal, 2022).

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Table 41: Life expectancy at birth: Central African countries, 2000 and 2019

Country	Life expectancy (2000)	Life expectancy (2019)	Percentage increase 2000 to 2019
Central African Republic	44	53	20
Chad	51	60	17
Equatorial Guinea	54	62	15
DRC	52	62	19
Zambia	45	63	40
Angola	49	63	28
Burundi	44	64	46
Average Central African	52	64	23
Congo	52	65	24
Gabon	58	67	15
Rwanda	48	69	46
São Tomé and Príncipe	64	70	11
Cameroon	67	73	9.7
Comparator: United Kingdom	78	81	4.5

Source: WHO (Nd)

Additionally, a breakdown of life expectancy at birth in Central African countries by gender is available (**Table 42**). According to Worldometer (2023), the highest life expectancy among women was seen in São Tomé and Príncipe (72) and the lowest was observed in the Central African Republic (55). For men the highest life expectancy was also reported in São Tomé and Príncipe (66) and the lowest was also reported in Central African Republic (52).

Table 42: Average life expectancy at birth by gender: Central African countries, 2023

Country	Life expectancy	Female life expectancy	Male life expectancy
Chad	54	55	52
Central African Republic	56	58	53
DRC	61	63	59
Cameroon	62	64	60
Equatorial Guinea	62	64	60
Burundi	63	65	61
Zambia	63	66	60
Angola	63	66	61
Congo	63	65	62
Gabon	66	69	64
Rwanda	67	70	65
São Tomé and Príncipe	69	72	66

Source: Worldometer (2023)

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2.7.2 Dementia

Dementia and Alzheimer's disease are the leading cause of death among the general population, this cause represented 13% of all death registrations in the period of 2017 to 2019 (ONS, 2021c).

There is an estimated 4% prevalence rate of dementia in England (OHID, 2022). Birmingham and Solihull Integrated Case System (BSOL ICS) has launched a Dementia Strategy for 2023 to 2028 (BSOL ICS, 2023). The Strategy reveals that the diagnosis rate in Birmingham and Solihull is currently 57%. The aim is to reach the mandated national target of 68%.

The Strategy aims to enable all people with dementia and those who care for them, to have the best possible health and social care support through their dementia journey. This will be achieved through 4 key priorities:

1. Information which focuses on prevention of dementia, early intervention, and support.

2. Access to a timely diagnosis with support before and after.

3. Supporting people with dementia, their loved ones, carers, and communities to prevent crisis.

4. Improving the quality of personalised care and support planning for people with dementia, including planning for the end of life.

There is no available information on the prevalence of dementia for Central Africans living in the UK. Additionally, rates of dementia and Alzheimer's disease are largely unexplored within Central African countries. A study has investigated neuropsychiatric symptoms[w] in older adults (aged more than 65) in Central African Republic and Congo (Yoyo-Zohoun, I., *et al.,* 2018). The study found very strong evidence (p<0.0001) for an increased likelihood of having neuropsychiatric symptoms in urban rather than rural areas. The study also found a reduced likelihood of having neuropsychiatric symptoms with people with normal hearing (0.52 times as likely) and having friends in the community (0.54 times as likely). Conversely, factors that increased the likelihood included difficulties in eating (1.89 times likelihood), physical disability (2.00 times), being female (2.29 times), and having diagnosed dementia (8.13 times). These indicate factors that may increase the likelihood of dementia in Central Africans. *Some of these findings had wide ranging confidence intervals which suggests a lack of confidence within findings. This makes it even more challenging to draw conclusions to all Central African communities, especially given that the findings are from small populations from specific regions in 2 Central African countries.*

2.7.3 Leading Causes of Mortality

It is unclear what the leading causes of mortality are within Central Africans living in the UK. However, the WHO does post the top causes of mortality for males and females within Central African

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[w] Neuropsychiatric symptoms are a common accompaniment of dementia. These include agitation, depression, apathy, delusions, hallucinations, and sleep impairment.

countries. **Table 43** shows the top 3 causes of mortality in Central African countries by gender. Common leading causes of mortality include neonatal conditions, lower respiratory infections, HIV or AIDS, and TB, all of which have been identified as health concerns in Central African countries throughout this profile. Comparatively, the leading causes of mortality in the UK are typically age-related with Alzheimer's disease and ischaemic heart disease being the top 2 causes for both males and females.

Table 43: Top 3 causes of mortality by gender in Central African countries, 2023

Country	Top 3 causes of mortality (female)	Top 3 causes of mortality (male)
Angola	Neonatal conditions, lower respiratory infections, HIV or AIDS	Neonatal conditions, lower respiratory infections, TB
Burundi	Neonatal conditions, lower respiratory infections, diarrhoeal diseases	Neonatal conditions, lower respiratory infections, diarrhoeal diseases
Cameroon	Neonatal conditions, lower respiratory infections, HIV or AIDS	Neonatal conditions, lower respiratory infections, diarrhoeal diseases
Central African Republic	Neonatal conditions, lower respiratory infections, diarrhoeal diseases	Neonatal conditions, lower respiratory infections, TB
Chad	Lower respiratory conditions, neonatal conditions, diarrhoeal diseases	Lower respiratory conditions, neonatal conditions, diarrhoeal diseases
Congo	HIV or AIDS, ischaemic heart disease, stroke	HIV or AIDS, TB, neonatal conditions
DRC	Neonatal conditions, lower respiratory infections, measles	Neonatal conditions, lower respiratory infections, diarrhoeal diseases
Equatorial Guinea	HIV or AIDS, neonatal conditions, lower respiratory conditions	HIV or AIDS, neonatal conditions, lower respiratory conditions
Gabon	TB, HIV or AIDS, neonatal conditions	TB, neonatal conditions, lower respiratory conditions
Rwanda	Stroke, lower respiratory conditions, neonatal conditions	Neonatal conditions, lower respiratory conditions, road injury
São Tomé and Príncipe	Ischaemic heart disease, stroke, lower respiratory conditions	Lower respiratory conditions, road injury, ischaemic heart disease
Zambia	HIV or AIDS, neonatal conditions, lower respiratory conditions	HIV or AIDS, neonatal conditions, lower respiratory conditions
United Kingdom	Alzheimer's disease and other dementias, ischaemic heart disease,	Ischaemic heart disease, Alzheimer's disease and other dementias, trachea

	lower respiratory conditions	bronchus and lung cancers

Source: WHO (Nd)

2.7.4 End-of-life and Palliative Care

One study based in Leicester engaged with members of ethnic minority communities including those with African and Caribbean heritage. The majority of participants did not know about palliative care, and both the concept of 'palliative' and 'care' held potential for misunderstanding. Knowledge of local palliative services was very low, and the majority did not know where to go for help or stated that they did not like to ask because of tradition, pride or perceived stigma and risk for family (Markham, Islam, and Faull, 2014).

Palliative care in sub-Saharan Africa is in its relative infancy although this is often where it is most needed. One study in 2020 reported that over 80% of people in need of palliative care live in low- and middle-income countries. In a review of palliative care policy in sub-Saharan countries, of the 12 Central African countries only Rwanda had a policy on guidelines on palliative care, education, medication access and implementation in hospitals and at home (van der Plas, Benjamens, and Kruijff, 2020).

In a qualitative review of end-of-life care in 2011 in sub-Saharan Africa (including Rwanda, DRC, and Zambia), it was found that the majority of studies focused on end-of-life care for those with HIV or AIDS (Gysels, *et al.* 2011). Informal carers were typically women, children and the elderly and lacked support from professionals and extended family. For one study in Rwanda, the second most perceived need (47%) was the need for home-based care. In another study in the same site in Rwanda, 67% indicated that they preferred hospital-based care, however, qualitative responses indicated this was because home-based care was seen to be lacking and because patients had lost family who would otherwise have cared for them to the 1994 genocide. Given the background of these findings, it is hard to conclude whether the population living in the UK would have similar end of life care needs.

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2.8   Contributing to a Green and Sustainable Future

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Key Findings

- Wards with low levels of environmental justice have the largest populations of Central Africans in Birmingham, including Ladywood (0.33), Newtown (0.41), Soho & Jewellery Quarter (0.36), and Nechells (0.42).

- Approximately 18% of the Central African born population live in the 15 most polluted MSOAs in Birmingham, according to MHCLG data from 2020, compared with 5.4% of the White British population.

- When data on heat risk is overlapped to census data, it can be understood that there are high populations of the Central African community in the 'very high' risk areas for the UHI effect (within the Centre to Central-West of the city). Therefore, the Central African population in Birmingham is likely vulnerable to the UHI effect.

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2.8.1   Environmental Justice

The Environmental Justice map combines 5 indicators, namely, the index of Years of Life Lost (YLL), Urban Heat Island (UHI) effect, IMD, Public green spaces access and flood risk. The indicators are combined and scaled in a range of 0 to 1, with 0 being the most preferred and 1 being the least. The wards in Birmingham vary from scores of 0.12 in Sutton Roughley to 0.43 in Balsall Heath West (Birmingham City Council, 2022a).

The largest populations of Central Africans in Birmingham by ward are found in Ladywood, Newtown, Soho & Jewellery Quarter, and Nechells (**Table 44**); these wards have higher mean values on the environmental justice map, meaning they have less environmental justice for citizens living there. Access to green space is lower, areas typically experience UHI effect, are at risk of flooding, have high levels of deprivations and people have worse health and wellbeing.

Table 44: Environmental justice of top 10 most populated wards by Central Africans: Birmingham, 2014

Ward	Central African residents	Proportion of CA population in Birmingham (%)	Index – mean value
Ladywood	262	6.8	0.33
Newtown (Birmingham)	233	6.1	0.41
Soho & Jewellery Quarter	214	5.6	0.36
Nechells	148	3.8	0.42
Harborne	146	3.8	0.26
Stockland Green	137	3.6	0.37
Bartley Green	117	3.0	0.31
Erdington	96	2.5	0.34
Handsworth Wood	94	2.4	0.26
Quinton (Birmingham)	93	2.4	0.27

Source: Birmingham City Council (2022a) and ONS (2023)

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2.8.2 Access to Green Spaces

Green spaces are defined as "any area of vegetated land, urban or rural. This includes both public and private spaces." Examples of green spaces include parks, gardens, playing fields, wood, and other natural areas (PHE, 2020b).

Birmingham has been named one of the greenest cities in Europe, with over 600 publicly accessible green and blue spaces across the city. 60% of Birmingham residents visit green spaces on a weekly basis, with 72% choosing to visit the green space closest to their home. However, there is an observed inequality in access to good quality green spaces across the city (Birmingham City Council, 2022b).

The environmental justice map defines access to green space as "within 1,000m and at least 2 hectares" (Birmingham City Council, 2022a). ONS data for 2020 provides insight into the average combined size of parks or public gardens and playing fields within 1,000m radius of residents by MSOA (ONS, 2021d).

Encouragingly, all MSOAs in Birmingham have at least 2 hectares of combined green space within 1,000 metres; however, these two hectares may be split into smaller parks and playing fields. For example, in Ladywood – Summer Hill MSOA, with a Central African population of 78, the average size of the nearest green space is 1.63 hectares, below the definition for access to green space. However, this dataset does not indicate the size of the next nearest green space, which may meet the requirements listed above (ONS, 2021d).

2.8.3 Air Pollution

Air pollution comes from a range of sources including vehicles which emit pollutants such as nitrogen dioxide (NO_2) and particulates (PM10 and PM2.5) that are harmful to health (Birmingham City Council, Nd). Poor air quality in Birmingham is contributing to hundreds of early, preventable deaths and making many existing health conditions worse. Poor air quality disproportionately affects the poorest and most vulnerable in Birmingham.

Birmingham introduced a Clean Air Zone which operates in the central Birmingham area within the A4540 Middleway and was introduced with the objective of reducing the levels of NO_2 to within the legal limit in the shortest possible time. Findings from the first interim report are that there has been a reduction in the levels of NO_2 within the Zone (when comparing 2019 (pre Covid) to 2021 results) by an average of 13% and levels of compliance for all vehicle categories has improved (a measure of number of unique vehicles that enter the Clean Air Zone).

2019 data from the IMD estimated the concentration of four main air pollutants: nitrogen oxide, benzene, sulphur dioxide and particulate matter across Birmingham. The overall pollution levels were calculated and given an associated score. A higher score indicates a higher level of air pollution; across England scores ranged from 0.32 to 1.90. In Birmingham, these scores ranged from 0.91 to 1.59 (MHCLG, 2019). **Table 45** shows the top 10 most polluted MSOAs in Birmingham and the number of Central African born people that live there.

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The most heavily populated MSOAs were North Central and Dartmouth Circus, where 4.1% of the Central African born population live. A total of 18% of the Central African born people lived in the top 10 most polluted MSOAs, compared to approximately 5.4% of the White British population in Birmingham.

Table 45: Average air pollution of four main air pollutants by MSOA, displaying Central African populations within each MSOA, Birmingham, 2020 and 2021

| MSOA	Pollution Score	Central African population (no.)	CA population in B 'ham (%)
Central	1.55	33	0.9
North Central and Dartmouth Circus	1.52	158	4.1
Nechells	1.51	86	2.2
Digbeth	1.49	39	1.0
Aston Park	1.48	55	1.4
Brookvale	1.47	48	1.3
Five Ways North	1.46	142	3.7
Ladywood – Summer Hill	1.45	78	2.0
Middlemore	1.45	45	1.2
Washwood Heath	1.45	19	0.5

Source: MHCLG (2019) and ONS (2023)

2.8.4 Flood Risk

Most Birmingham postcodes are medium flood risk, with some low, high, and very low flood risk postcodes. Flood risk mapping identifies areas that are at high risk of flooding. **Figure 18** illustrates

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the inland waterways in Birmingham which are associated with increased flood risk.

Figure 18: Map of inland waterways in Birmingham
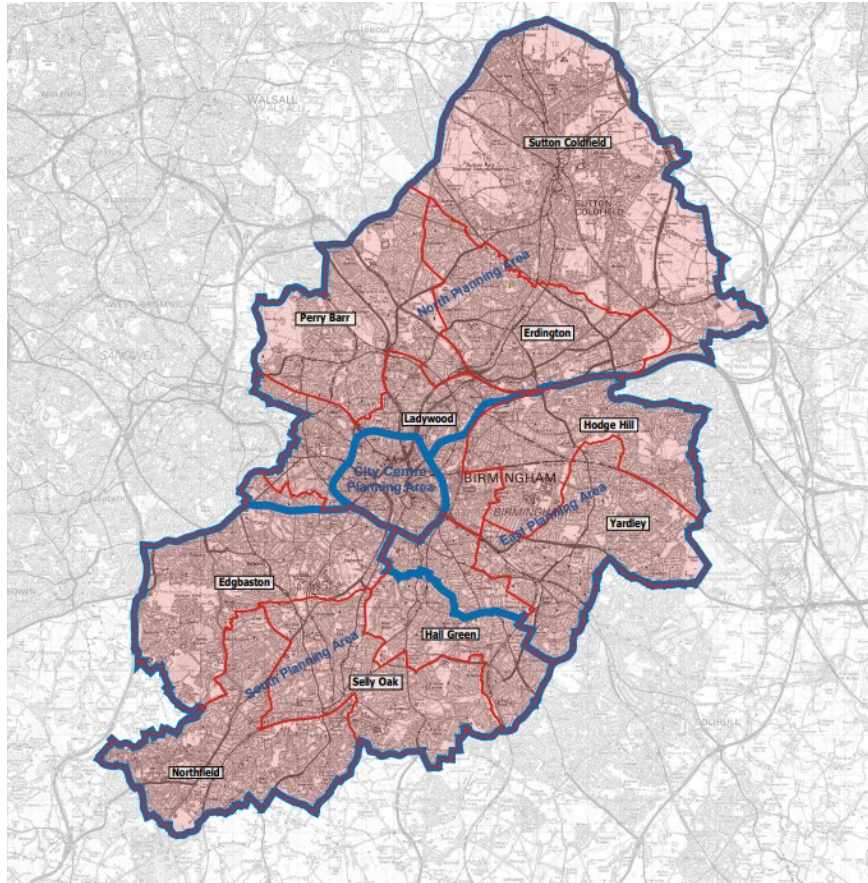
Source: Birmingham City Council (2009)

Each of the Birmingham wards that most Central African groups live in have a mixed flood risk. Nechells and Soho are high flood risk areas, and Aston and Ladywood have high, medium, and low flood risk postcodes (Birmingham City Council, 2009).

2.8.5   Rising Temperatures and Heat Stroke

The UHI effect refers to areas of high building density, usually the cores of the cities, where temperatures are typically higher than the outer areas of the city. In Birmingham, for example, Sutton Park was recorded as having a surface temperature almost 8 degrees cooler than the city centre during a heatwave. During periods of extended high temperatures, such as heatwave conditions, the UHI can cause excess deaths of citizens in these areas. Some groups are more vulnerable to the UHI effect, including older adults, those with LTHCs, people living in high-rise buildings and in high density areas (Tomlinson et al., 2013).

Published research from Tomlinson et al. (2013), produced spatially assessed heat-health risk map for Birmingham (**Figure 19**). When heat risk data is overlapped to census data, it can be understood that there are high populations of the Central African community in the 'very high' risk areas (within the Centre to Central-West of the city). Therefore, the Central African population in Birmingham is likely vulnerable to the UHI effect.

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Figure 19: Spatially assessed heat-health risk: Birmingham, 2011
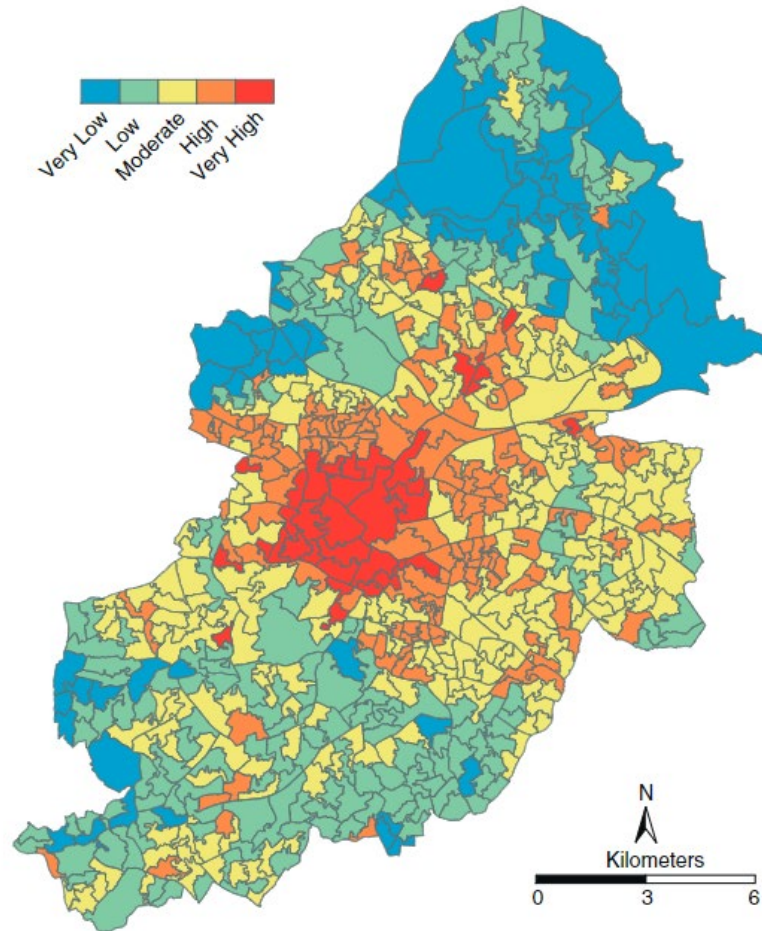
Source: Tomlinson *et al.,* Royal Meteorological Society (2013)

A 2022 United States Institute of Peace report found, in countries like Central African Republic, increased scarcity in natural resources, such as water and cattle grazing ground, could exacerbate competition over land and fuel intercommunal tensions and conflict between herders and farmers (Henry, 2022). Climate shocks would also aggravate food crises in the DRC and Chad, where agricultural production is already reeling from the effects of violence and insecurity. Other weather events like extreme flooding could fuel displacement throughout Central Africa and lead to the spread of illnesses such cholera, adding stress to already weak health systems. Central Africa's unique set of risk factors and ongoing crises make its countries and citizens particularly vulnerable to climate shocks amid ongoing conflict (Henry, 2022).

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3. Closing the Gaps

There is currently limited understanding of the intersectional experiences of Central Africans outside of small qualitative research studies and international databases, this is in part due to lack of relevant data. Additionally, it is difficult to accurately ascertain the health of Central Africans in the UK as many studies focus on either country of origin only, or group countries together showing data from 'African countries'.

There is some data to suggest that the health of migrants is associated with acculturation, such as observed decreased physical activity after migration (Ngongalah *et al.,* 2021)*.* Therefore, it is important to interpret international data presented throughout this report with caution as health data may not be applicable to the current health and wellbeing of Central Africans in the UK.

Research on Central African communities have suggested that intersectionality between country of birth and other aspects of identity, such as gender and age are associated with poorer health outcomes, and it is important that this is explicitly considered in responding to this profile. For example, women experience higher rates of domestic violence, are less physically active and have higher incidence of cancer. Older Central Africans are also more likely to report being physically inactive. There is limited data available, but it is also likely that Central Africans who have a disability or identify as LGBTQ+ experience compounding health inequalities.

Finally, this report highlighted structural, institutional, and systemic racism which exists in the UK and is likely to impact people from Central African countries and people of African descent (UN, 2023).

Migrants from Central Africa may also experience discrimination for other factors than race such as religion, nationality, having a foreign accent, or having a lower proficiency in English language. Experiences of structural racism plays a role in the wider determinants of health and may also impact the access to and experiences of healthcare services. To effectively tackle inequalities Central Africans may experience it is important to decrease discrimination and barriers to accessing services to accurately map Central African's experiences with health and wellbeing and how their health interacts with other aspects of their identity e.g., age, disability, sexual orientation, and faith.

4. Conclusion

This Community Health Profile clearly demonstrated a significant breadth of health inequalities affecting Central Africans.

Throughout the Community Health Profile, it has been identified that many healthcare services in Central Africa are lacking in provision, staff, and facilities. This may impact the quality of treatment and result in rates of screening and health checks to be low or even unrecorded in Central African countries. It is important that Central Africans are made aware of the NHS (and the available services that the NHS provides) upon entry to the UK and for new migrants to discuss how the healthcare in the UK compares to the healthcare that they are used to. It would also be beneficial to ensure that Central Africans are up to date with national guidelines on screening, vaccinations, and immunisations.

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The profile has revealed that certain health outcomes and determinants of health are more pronounced within different ethnic communities. For example, rates of prostate cancer are higher in Black men compared with White men. Therefore, it is important to understand the differences in health between the ethnic groups that constitute the Central African communities living in the UK.

It is also important to acknowledge that there are also some positive in the report and that in some areas such as physical activity and education the evidence suggests that Central Africans have more positive behaviours and outcomes than the England and Wales population. We should also recognise the vibrant and varied culture and heritage of people from Central African countries within the UK. However, these assets are often overshadowed by the negative inequalities highlighted above.

Additionally, many of the findings in this report must be considered with caution due to the scarcity of UK specific research on the Central African population. Much of the data comes from Central African countries and may not be generalisable to the UK population of Central Africans, and more research is required on those living in the UK to understand their unique health needs. The determinants of health will be different in the UK to Central Africa and impact people's health in different ways

The Community Health Profile provides an evidence summary for communities and partners to start to co-produce solutions and better address these long standing inequalities to create better environments and services to support Central Africans to live healthier, longer, and happier lives.

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5. Appendices

Appendix 1: Search Strategy

Topic Area	General Search Terms	Specific Search Terms
Getting the Best Start in Life	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" or "ethnic*" or "BAME" or "Black African" and "young*" or "youth" or "child*" or "babies" or "infan*" or "childhood" and "England" or "United Kingdom" or "UK"	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" and "maternity care" or "obes*" or "measles" or "childhood obesity" or "health check" or "maternal" or "breastfeeding" or "visits" or "rituals" or "bullying" or "foster*" or "care" or "social care" or "child poverty" or "educat*" or "school" or "dental" or "birth" or "fertility" or "vaccin*" or "mortality" or "morbid*" or "screening" or "child mental health" or "youth justice" or "environment" or "FGM" or "female genital mutilation"
Mental Wellness and Balance	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" or "ethnic*" or "BAME" or "Black African" and "mental*" or "wellbeing" or "well-being" or	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" and "mental illness" or "mental health" or "depress*" or "suicide" or "anxiety" or "eating disorder" and "prevalence" or "service" or "access" or "hospital admission" or "shame" or "stigma" or "stress" or "racial harassment" or "alcohol*" or "drinking*" or "abstention" or "substance misuse" or "substance abuse" or "addiction" or

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	"wellness" or "access" or "balance" and "England" or "United Kingdom" or "UK"	"tobacco" or "cannabis" or "cigarette" or "drug" or "smoking" or "discriminat*" or "hate crime" or "violence" or "domestic violence" or "vap*" or "positive" or "mindfulness" or "spiritual*" or "positive mindset" or "positive mind-set" or "optimism" or "psychosocial" or "self-image" or self-image or "positive thinking" or "thriving"
Healthy and Affordable Food	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" or "ethnic*" or "BAME" or "Black African" and "food" or "diet" or "obesity" or "meat" or "vegetarian" or "nutrition" or "vegan" and "England" or "United Kingdom" or "UK"	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" and "food*" or "diet*" or "obes*" or "overweight" or "BMI" or "weight" or "waist-height ratio" or "insecurity" or "poverty" or "food poverty" or "hunger" or "deprivation" or "food insecurity" or "access to food"
Active at Every Age and Ability	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" or "ethnic*" or "BAME" or "Black African" and "physical activity" or "activity" or "exercise" or "inactivity" and "England" or "United Kingdom" or "UK"	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" and "vigorous exercise" or "moderate exercise" or "walking" or "running" or "sports" or "cardiovascular" or "elderly exercise" or "health promotion" or "mobility" or "barrier" or "facilitat*" or "musculoskeletal" or "EQ5D" or "sedentary"

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Living, Working and Learning Well	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" or "ethnic*" or "BAME" or "Black African" and "working" or "education" or "qualification" or "training" or "skill" or "housing" or "living" or "economic" or "health" or "illness" or "disability" or "long standing health" or "depriv*" or "poverty" and "England" or "United Kingdom" or "UK"	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" and "apprenticeships" or "level 1 qualification" or "level 2 qualification" or "level 3 qualification" or "level 4 qualification" or "degree" or "NEET" or "secondary school" or "primary school" or "full-time education" or "profession" or "employment" or "career choice" or "career" or "economic" or "household income" or "homeownership" or "housing" or "bad health" or "learning disability" or "physical disability" or "neurodivergence" or "ADHD" or "autism" or "ASD" or "diabetes" or "cardiovascular disease" or "CVD" or "Chronic Obstructive Pulmonary Disease" or "COPD" or "Hypertension" or "cancer" or "quality of life" or "access" or "social care" or "healthcare service" or "class" or "social class" or "social economic" or "economic" or "mentorship" or "dyslexia" or "dyspraxia" or "dyscalculia" or "disability" or "special needs"
Protect and Detect	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" or "ethnic*" or "BAME" or "Black African" and "protect" or "detect" or "screening" or "vaccin*" or "sexual health" or "infectious disease" or	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" and "STI" or "STD" or "sexually transmitted disease" or "sexually transmitted infection" or "sex education" or "transmission" or "sexual health services" or "genitourinary medicine" or "HIV" or "Hepatitis" or "Tuberculosis" or "TB" or "COVID-19" or "coronavirus" or

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	"oral health" and "England" or "United Kingdom" or "UK"	"SARS-CoV-2" or "bowel" or "HPV" or "Human Papilloma Virus" or "dental" or "sickle cell" or "sickle*"
Ageing Well and Dying Well	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" or "ethnic*" or "BAME" or "Black African" and "ageing" or "aging" or "dying" or "dementia" or "end of life" or "palliative" or "frailty" or "lon" or "isolat*" or "care" and "England" or "United Kingdom" or "UK"	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" and "social networks" or ""Alzheimer's" or "stigma" or "death" or "advance care planning" or "ACP" or "falls" or "balance" or "life expectancy" or "mortality" or "frail*"
Contributing to a Green and Sustainable Future	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" or "ethnic*" or "BAME" or "Black African" and "sustainability" or "green future" or "sustainable" or "environment" and "England" or "United Kingdom" or "UK"	"central Africa*" or "Angola" or "Cameroon" or "Central African Republic" or "Chad" or "Democratic Republic of the Congo" or "Republic of Congo" or "Equatorial Guinea" or "Gabon" or "Rwanda" or "São Tomé and Príncipe" or "Burundi" or "Zambia" and "recycling" or "environmentally friendly" or "tree planting" or "sustainable development" or "energy consumption" or "green space" or "blue space" or "White space" or "pollution" or "pollut*" "flood" or "climate" or "heat" or "heat stroke" or "urban" or "air" or "nature" or "urban planning" or "environment design" or "organic" or "community planning" or "gorilla planning" or "community gardening" or "green development" or "allotment" or "parks" or "recreation" or "permaculture"

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Appendix 2: Exclusion and Inclusion Criteria

Age group	Language	Publication type	Availability	Time limit
Any	English Language	Pieces of peer reviewed and high-quality grey literature, academic or scientific literature, whether a journal or article, report or documents relating to the specified health and wider determinants issues amongst Central African groups in the UK. Publications exclusive to people from Central African communities. Population with Central African background in Midlands or the UK. This includes participants with backgrounds from Angola, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Republic of Congo, Equatorial Guinea, Gabon, Rwanda, São Tomé and Príncipe, Burundi, and Zambia. Where data was not available for this population, Black (including Black British, Black African and Black Caribbean) UK data was included. Studies and reports that did not include data for participants from Central African or Black ethnic background based in the UK were excluded (only if no or limited data was available on specific topics, international literature was included).	All articles including DOI/HTML links.	Searches were run restricting to articles published in the last 10 years, not including 2011 census and 2001 census.

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Appendix 3: Supplementary Data

Appendix 3.1, Figure 2: Year of arrival from Central Africa to England and Wales, 2021

Year of arrival	Arrived before 1991 (%)	Arrived 1991 to 2000 (%)	Arrived 2001 to 2010 (%)	Arrived 2011 to 2021 (%)
Percentage	15	22	37	27

Source: ONS (2023)

Appendix 3.2, Figure 3: Year of arrival by country of birth split by Central African born people, England and Wales, 2021

Country of birth	Arrived before 1991 (%)	Arrived 1991 to 2000 (%)	Arrived 2001 to 2010 (%)	Arrived 2011 to 2021 (%)
Angola	5.3	26	35	34
Cameroon	5.5	13	40	42
Congo	5.4	30	45	21
DRC	6.1	28	45	20
Other Central and Western Africa	9.3	7.9	27	56
Burundi	3.9	30	46	21
Rwanda	3.7	39	40	17
Zambia	45	16	28	12

Source: ONS (2023)

Appendix 3.3, Figure 4: Main language of Central African born people, England and Wales, 2021

Main language	%
English main language	62
English not main language but can speak very well	14
English not main language but can speak well	16
English not main language cannot speak well	6.8
English not main language cannot speak English	0.9

Source: ONS (2023)

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Appendix 3.4, Figure 5: Religion of Central African born people as a percentage: England and Wales, 2021

Religion	Angola	Cameroon	Congo	DRC	Other CW	Burundi	Rwanda	Zambia
No religion	12	4.8	7.2	3.9	11	4.2	5.1	17
Christian	81	88	82	90	61	67	78	64
Buddhist	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
Hindu	0.0	0.0	0.5	0.2	3.3	0.8	0.6	7.1
Jewish	0.1	0.1	0.5	0.1	0.0	0.0	0.1	0.2
Muslim	0.7	1.4	3.6	2.0	18	22	12	6.5
Sikh	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.1
Other religion	0.6	0.6	0.4	0.5	0.6	0.9	0.4	0.8
Not answered	5.7	5.3	5.5	3.6	5.8	5.1	4.3	4.1

Source: ONS (2023)

Appendix 3.5, Figure 6: Age of people born in Central Africa, compared with England and Wales, 2021

Age	Central and Western Africa (%)	England and Wales (%)
Aged 15 years and under	6.5	19
Aged 16 to 24 years	17	11
Aged 25 to 34 years	19	14
Aged 35 to 49 years	37	19
Aged 50 to 64 years	17	20
Aged 65 years and over	3.0	19

Source: ONS (2023)

Appendix 3.6, Figure 7: Age of people born in Central Africa, compared with Birmingham, 2021

Age	Central and Western Africa (%)	Birmingham (%)
Aged 15 years and under	6.5	22
Aged 16 to 24 years	17	14
Aged 25 to 34 years	19	15
Aged 35 to 49 years	37	19
Aged 50 to 64 years	17	16
Aged 65 years and over	3.0	13

Source: ONS (2023)

Appendix 3.7, Figure 9: Rates of overweight and obesity amongst boys and girls in Middle African countries, 2011 to 2016

Year	Boys overweight %	Girls overweight %	Boys obese %	Girls obese %
2011	4.7	12	0.8	2.1
2012	5.0	12	0.9	2.3
2013	5.4	13	1.0	2.4
2014	5.7	13	1.1	2.6
2015	6.1	14	1.3	2.8
2016	6.6	15	1.4	3.0

Source: Global Nutrition Report (2023)

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Appendix 3.8, Figure 10: Physical inactivity rates amongst adult and older adult males and females within Central African countries, 2022

Country	Physical Inactivity Adult Males (18+) %	Physical Inactivity Adult Females (18+) %	Physical Inactivity Older Adult Male (70+) %	Physical Inactivity Older Adult Female (70+) %
Cameroon	22	35	34	51
CAR	13	16	21	26
Chad	20	27	25	33
DRC	21	27	33	40
Congo	25	31	37	46
Gabon	18	33	28	49
Rwanda	11	18	18	29
STP	10	21	17	34
Zambia	19	25	23	30

Source: WHO (2022b)

Appendix 3.9, Figure 11: Highest level of qualification in Central African born people compared with England and Wales average, 2021

Qualification	Central African (%)	England and Wales average (%)
No qualifications	12	18
Level 1	8.6	9.6
Level 2	8.5	13
Level 3	14	17
Level 4+	49	34
Other	7.4	8.1

Source: ONS (2023)

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Appendix 3.10, Figure 12: Economic activity of Central African born people compared with Birmingham and national averages, 2021

Activity	CA (%)	Birmingham (%)	Eng and Wal (%)
Economically active: Employed	64	50	57
Economically active: Unemployed (including full-time students)	8.1	5.9	3.4
Economically inactive	28	44	39

Source: ONS (2023)

Appendix 3.11, Figure 13: Economic activity within Central African born people compared with Birmingham and national averages, 2021

Country of birth	Active: in employment (%)	Active: unemployed (%)	Inactive (including students) (%)
Angola	64	9.7	26
Cameroon	69	7.9	23
Congo	57	12	31
DRC	57	9.9	33
Other Central and West Africa	62	8.8	29
Burundi	66	7.7	27
Rwanda	70	7.0	23
Zambia	70	4.5	25

Source: ONS (2023)

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Appendix 3.12, Figure 14: Self-reported health status amongst Central African born people compared with Birmingham and national averages

General health	Central African (%)	Birmingham (%)	England and Wales (%)
Very good health	50	48	48
Good health	36	33	34
Fair health	10	13	13
Bad health	2.8	4.5	4.0
Very bad health	0.7	1.5	1.2

Source: ONS (2023)

Appendix 3.13, Figure 15: Coronary heart disease related mortality (per 100,000 people) amongst males and females, Central Africa, 2020

Country	Total death rate (per 100,000)	Death rates within males (per 100,000)	Death rates within females per (100,000)
Angola	108	112	96
Burundi	107	125	91
Cameroon	122	143	105
CAR	162	185	140
Chad	117	128	108
DRC	109	112	104
Congo	134	124	138
Equatorial Guinea	102	95	108
Gabon	108	123	91
Rwanda	78	87	69
STP	134	138	131
Zambia	85	114	65
Average CA	114	124	104
UK	43	61	27

Source: WHO, cited by World Life Expectancy (2020)

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Appendix 3.14, Figure 16: Self-reported disability amongst Central African born people, compared with Birmingham and national averages, 2021

Disability	Central African (%)	Birmingham (%)	England and Wales (%)
Disabled under the Equality Act: Day-to-day activities limited a lot	42	47	43
Disabled under the Equality Act: Day-to-day activities limited a little	58	53	57

Source: ONS (2023)

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Appendix 4: Central African Cuisine

Angola cuisine is influenced by its diverse ethnic communities. Rice, flour, beans, chicken, fish, and pork are the staples of the diet. Vegetables like tomatoes, onions, okra, and sweet potatoes are also widely consumed. Funge is a common dish in Angolan cuisine. It is a type of porridge that is served with chicken, beans, fish, or pork. Muamba de galinha is a chicken preparation using palm paste, palm oil hash, garlic, and okra. Rice is consumed with vegetables, fish, or chicken. Cabidela is a dish cooked in blood (usually chicken) and is served with rice and funge. Fish stews, fried caterpillar, yellow coconut pudding and peanut candy are also popular Angolan dishes (Sen Nag, 2020).

Burundi has beans as a staple along with sweet potatoes, plantains, peas, cassava, maize, cereals, and exotic fruits. Agricultural fields occupy 80% of the country's area which means staple items can be grown more easily and are more accessible when preparing meals. The consumption of meat is low in the country as cows are regarded as sacred by the people of Burundi. Goat and sheep meat are, however, consumed (Sen Nag, 2018a).

Cameroon has one of the most diverse cuisines in Africa due to its location at the crossroads of many cultures. Cassava, yams, rice, potato, sweet potatoes, millet, maize, and rice are some of the staple foods of Cameroon. Fish is the most common source of protein in the diet. Beef and poultry are also consumed. Bushmeat which is the meat of wild animals native to African forests (including monkeys, snakes, porcupines, antelopes, elephants and giraffes) was more popular in the past than now and this has reduced, but the illegal trade of bushmeat continues to exist. In some parts of Cameroon, especially in the forested areas, insects are also consumed (Sen Nag, 2018b).

Central African Republic staple foods include cassava, rice, squash, pumpkins, and plantains, which are usually served with a sauce and grilled meat. Okra features in almost every meal, and peanuts are added in many dishes to add protein. Game is popular, as are the fish-based dishes called *maboké* and *soussou* (O'Toole, Giles-Vernick, van Hoogstraten, 2023).

Chad staple food includes grains and starchy vegetables such as sorghum, millet, maize, manioc, potatoes, rice, sesame, and some bean species. One common dish is a porridge, made of sorghum or millet flour, served with sauces that contain meat, dried fish, tomatoes, onions, and spices. There is a north-south divide in food tradition. In the south there is no fish in the diet and less consumption of milk products from livestock herds. The diet of southern people includes more variety in the spices, and fruits that are consumed whereas in the north, the diet includes more staple foods including dairy products and meats (World Culture Encyclopaedia, n.d.).

Congolese cuisine incorporates French, Asian, and Arabic influences into more traditional starchy staple items. Subsistence farming is the method of farming in the DRC and Congo and cultivated crops include cassava, sweet potatoes, taro, yam, plantains, okra, tomatoes, beans, and ground nuts. Cassava is a staple which is used to make fufu, a sticky dough-like staple, which is an accompaniment to almost every meal. Chicken and goat meat are the main source of animal protein, but as they cost more, are often reserved for special

occasions or to share with guests. Fish are fried or steamed in banana leaves. Other sources of protein include bushmeat, grasshoppers, and caterpillars (Together Women Rise, n.d.).

Equatorial Guinea's national cuisine includes various types of meat including chicken, game, fish, snails, and bushmeat. Fruits and vegetables include locally sourced nuts, yam, plantains, sweet potato, rice, cassava root, bananas, and bread fruit. Some popular dishes include rocky mountain oysters (deep fried bull testicles) and spicy pepper soup (made up of ingredients such as chili peppers, meat, and nutmeg) (Illsley, 2019).

Gabon food is a blend of traditional African ingredients and French flavours. Meals typically consist of meat or fish served with stewed vegetables and a hot chilli sauce. Having maintained strong links with France since independence, French staples such as croissants and baguettes are available in cities. In more rural areas, dishes tend to be more simple replying on cassava, rice, or yams. Bushmeat has been a traditional part of the Gabonese diet (Sen Nag, 2019a).

Rwanda meals are simple and prepared using local ingredients and food that is not too spicy. A typical traditional breakfast is made up of porridge and sweet potatoes. The porridge is a mixture of corn, millet, and sorghum. The heaviest meal of the day is dinner, and this is usually made up of dishes like Isombe (cassava leaves with eggplant and spinach), Umutsima (a dish of cassava and corn) and 'Mizuzu' (fried plantains) (Visit Rwanda, n.d.).

São Tomé and Príncipe cuisine has influences of African and Portuguese cuisines. The country imports much of its food since local produce is not sufficient to meet the need of the residents. The arable land is only about 8.3% of the total land area. Some food crops like taro, beans, papaya, bananas, and maize are grown in the country. Fish and other seafood are widely available, and poultry is also raised. Staple foods include seafood, cooked banana, maize, beans, and fish. Hot spices are used to prepare most dishes. Coffee is used as a seasoning when cooking some dishes. Sweet corn and coconut are used to prepare Arroz doce, a traditional breakfast food. A common meal is grilled fish served with cassava, breadfruit, or rice. Another traditional dish is the Calulu. It consists of smoked fish, prawns, okra, eggplant, tomato, and is flavoured with a variety of spices. A boiled pork dish flavoured with tomato, onion, garlic, spinach, and spices, is also eaten. Chocolate mousse and canjica (a sweet porridge containing canjica, egg, cinnamon, sugar, and water) are popular desserts (Sen Nag, 2019b).

Zambia's staple carbohydrate is Nshima, a porridge like dish, made from corn that is processed into a fine white powder and served with a protein (usually meat or fish) and one or two vegetables. Delicacies include '*ifinkubala*', caterpillars which are usually fried in oil and served with tomatoes and onion with Nshima (Kapambwe, 2018).

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6. Acknowledgments

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Birmingham City Council would like to thank the contribution of the author Atiya Kamal and contributors Birmingham City University and contributors Guojin Li, Sue O'Sullivan and Hollie Sutch for their support with searches and preliminary screening for the first drafts of the Central African Community Health Profile.

Thank you to Guojin for the additional support to manage data sources and citations.

The final draft which included the 2021 census data, and the majority of the country-level data was authored by Joe Merriman, Public Health Senior Officer within the Communities Team, Public Health Division, Birmingham City Council.

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