**2022** Liberia Population and Housing Census

# Thematic Report on
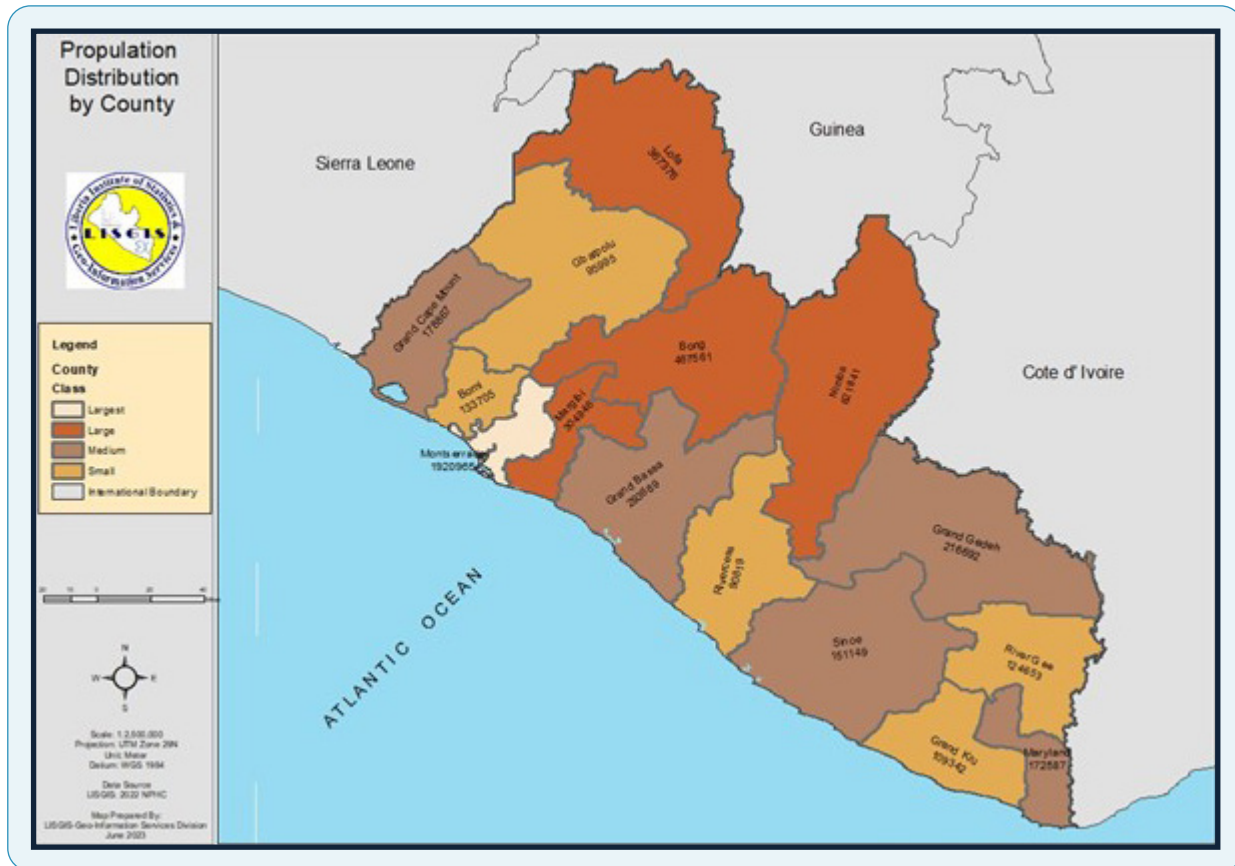# Gender

June 2024

# Administrative map of Liberia

# Foreword

The 2022 National Population and Housing Census is the fifth and first digital census with the full deployment of ICT techniques and followed the UN Recommended Principles for the 2020 round of censuses. The basis for the conduct of the census is Article 39 of the 1986 Constitution of the Republic of Liberia. On October 10, 2022, the Government of Liberia initiated "an Act Authorizing the Executive Branch of Government to conduct the 2022 Liberia Population and Housing Census".

Hence, following the successful implementation of the 2022 Liberia Population and Housing Census, the Liberia Institute of Statistics & Geo-Information Services (LISGIS) produced 14 thematic reports. These reports summarized the country's demographic, social, and economic sectors. The publication of the thematic reports is consistent with the United Nations (UN) International Standards of releasing National Census results and thematic reports.

The 14 thematic reports form a primary source of socio-economic and demographic data at various levels and provide relevant information to foster national development, good governance, and resource distribution. The results presented in this thematic report will form a solid basis for the successes and challenges in the implementation of the Sustainable Development Goals (SDGs) as well as support the implementation of the development of the Africa Union Agenda 2063: The Africa We Want; Transforming Our World and other national and international programs.

I am pleased that the thematic reports helped to guide our national development plan. I would like to appreciate the support received from development partners and individuals during the entire process of writing the thematic report.

On behalf of the Census Commission and Board of Directors of LISGIS, I thank the Government of Liberia and our development partners for providing the required resources for conducting the census. Thanks also go to the national and international experts who worked very hard to complete these thematic reports.

Special appreciation for the success of the census goes to Hon. Samuel D. Tweah, Jr., former Chairman of the Census Commission, the Census Commission, the Steering Committee, the Census Secretariat, other national and international experts, census staff, and all respondents who provided the required information as well as all stakeholders for their commitment, motivation, and support to the National Population and Housing Census process.

I look forward to the continued support and guidance of development partners to engender sustainable development in our country.

Hon. Dehpue Y. Zuo
**Deputy Minister for Economic Management**
**& Chairman of the Board**
Ministry of Finance and Development Planning

# Preface

The Liberia Institute of Statistics & Geo-Information Services (LISGIS) conducted the fifth and first fully digital census in November 2022. The 2022 National Population and Housing Census data was collected using Computer Assisted Personal Interviewing (CAPI) technology. Data were collected using tablets and later transmitted to LISGIS's server electronically.

The 14 thematic areas identified provide a comprehensive understanding of the population. These thematic areas are a) Population Distribution and Size b) Children, Adolescents, and Youth c) People with disabilities and older people d) Migration and Urbanization e) Labor force and Employment, f) Education, and Literacy g) Agricultural Population, h) Non-monetary poverty i) Housing conditions and facilities j) Mortality, k) Fertility, l) Marriages/Nuptiality, m) Gender Dimensions, and n) Population Projections. I would also like to thank the national and international experts for preparing the thematic reports.

Though the Government contributed immense resources to the 2022 National Census exercise, the requirements were enormous and beyond the capacity of the Government and LISGIS. It is with pleasure that we recognize and appreciate the support of the United Nations Population Fund (UNFPA), the Swedish Government, the World Bank, the United States Aid for International Development (USAID), the Irish Government, the Government of Ghana, Economic Community of West African States (ECOWAS) and the United Nations Children's Fund (UNICEF) and other partners whose timely and continuous interventions gave stimulus to the execution of the 2022 Liberia Population and Housing Census including the preparation of the reports.

Special gratitude goes to the general public for their cooperation and support. We are indebted to personnel and the management of LISGIS, national and international experts, supervisors, and enumerators for successfully conducting the 2022 National Population and Housing Census.

Richard F. Ngafuan
Director General
LISGIS

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# List of abbreviations

| | |
|---|---|
| **AADPD** | Addis Ababa Declaration on Population and Development |
| **AIDS** | Acquired Immunodeficiency Syndrome |
| **ASDR** | Age-Specific Death Rates |
| **ARREST** | Agriculture, Roads, Rule of Law, Education, Sanitation/Health and Tourism (ARREST) agenda |
| **AU** | African Union |
| **CSO** | Civil Society Organization |
| **COVID-19** | Corona Virus Disease 2019 |
| **DHS** | Demographic and Health Survey |
| **EVD** | Ebola Virus Disease |
| **FGC** | Female Genital Cutting |
| **GBV** | Gender-Based Violence |
| **GRB** | Gender-Responsive Budgeting |
| **HDR** | Human Development Report |
| **HSSP** | Health Sector Strategic Plan |
| **ICPD** | International Conference on Population and Development |
| **IPV** | Intimate Partner Violence |
| **LDHS** | Liberian Demographic and Health Survey |
| **LEC** | Liberia Electricity Company |
| **LPHC** | Liberian Population and Housing Census |
| **MMR** | Maternal Mortality Ratio |
| **NCDs** | Non-Communicable Diseases |
| **NHPP** | National Health Policy and Plan |
| **PHC** | Population and Housing Census |
| **PWDs** | Persons with Disabilities |
| **SDG** | Sustainable Development Goal |
| **SGBV** | Sexual and Gender-Based Violence |
| **SMAM** | Singulate Mean Age at Marriage |
| **SSA** | Sub-Saharan Africa |
| **TFR** | Total Fertility Rate |
| **UNSDCF** | United Nation Sustainable Development Cooperation Framework |
| **UNSDFG** | United Nations Sustainable Development Framework Guidance |
| **UN IGME** | United Nations Inter-Agency Group for Child Mortality Estimation |
| **WASH** | Water, Sanitation and Hygiene |
| **WWDs** | Women with Disabilities |

# Factsheet

| Indicator | Male | Female |
|---|---|---|
| Total population | 50.4 | 49.6 |
| Household Headship | 64.4 | 35.6 |
| Household size | 5.3 | 6.1 |
| Household Heads by access to electricity for lighting | 32.2 | 33.4 |
| Household Heads with wood fuel for cooking | 96.6 | 97.3 |
| Households with improved drinking water | 77.2 | 76.3 |
| Households with improved solid human waste disposal | 55.1 | 59.3 |
| Singulate Mean Age at Marriage | 31 | 27 |
| Neonatal mortality rate | 40.8 | 30.3 |
| Infant mortality rate | 52.8 | 74.8 |
| Child mortality rate | 29.2 | 35.0 |
| Under-5 mortality rate | 81.8 | 103.7 |
| Crude death rates | 15 | 12 |
| Per cent Distribution of Migrants by | 49.6 | 50.1 |
| Literate population (5 years and above) | 53.1 | 57.6 |
| Population currently in school attendance (3 years and above) | 34.6 | 34.8 |
| Population with no formal education | 32.7 | 41.3 |
| Population with no tertiary education | 5.7 | 3 |
| Agriculture household | 32.7 | 25.8 |
| Children (0-4) years | 5.2 | 5.3 |
| Children (5-9) years | 5.8 | 5.9 |
| Elderly Population (60 and above) | 2.3 | 2.2 |
| Population of persons living with disabilities | 11.0 | 11.8 |

# Executive summary

The 2022 Liberia Population and Housing Census (LPHC) was conducted to provide national level data on demographic, social and economic indicators in the country. The data are key for research, policy and planning purposes for national developmental activities. Further, the data is useful as it could be used to track the implementation of global and national developmental frameworks, such as the four strategic outcomes of the United Nations Sustainable Development Framework Guidance (UNSDFG) and the goals and objectives of the Agriculture, Roads, Rule of Law, Education, Sanitation/Health and Tourism (ARREST) agenda, the Africa We Want; and Transforming Our World: the 2030 Agenda for Sustainable Development.

The gender thematic report provides important data on males and females and key socioeconomic, demographic and household indicators. These will provide vital data needed for national and county level programming by contributing to reducing the data deficiency gap on gender-related issues in Liberia. Further, the report will offer data needed for tracking the progress of the gender-related SDGs. Thus, the primary objective of the gender thematic report is to present evidence of the sex differentials with regard to key socioeconomic and demographic indicators in Liberia for use by policy and decision-makers, researchers and other key stakeholders in understanding the development processes in Liberia. The report is relevant for national development as it responds to key human security issues by bridging the data gap and providing data on gender disparity in access to education, labour force participation, and access to essential services which are all aimed at empowering women and improving upon the quality of life in the country. This publication provides the Government of Liberia, the various ministries and departments, local and international agencies, funding and development partners, civil society organizations (CSOs), private sector and researchers, and all other stakeholders with data for planning purposes.

In this report, detailed statistics on the gender differences in demographic characteristics as well as gender disparities in households with regard to socioeconomic characteristics are presented. Additionally, gender disparities in households concerning specific household conditions and gender differences among vulnerable populations are provided. Finally, the report provides recommendations for future policy formulation and development planning.

The report analyses sex differentials of various socioeconomic and demographic variables obtained from the 2022 National Housing and Population Census data. Other complementary data sources include past LPHCs and Liberia Demographic and Health Surveys (LDHS). Key socioeconomic variables such as type of place of residence, county, marital status, level of education, economic activity and poverty, are examined and segregated by sex. Further, the analysis focuses on sex differentials and demographic characteristics such as age group, marriage, mortality, fertility and migration. Also, household indicators like house ownership and access to essential amenities were collected during the census and are segregated by sex. Disability status separated gender and, other health indicators are also highlighted. The relative frequencies of males and females are compared to absolute frequencies (total number) and shown using graphs and tables.

The results show that the sex composition of the population has changed marginally overtime. The proportion of households being headed by females has been increasing overtime. In Liberia, while the mean household size for male-headed households is decreasing, that for female-headed households is increasing. Additionally, while access to key amenities such as electricity, improved sources of fuel for lighting, improved drinking water sources and improved human waste disposal facilities have improved, some noteworthy gender differences must be targeted. In households headed by males and females, no substantial difference is observed with regard to the proportion who rely on electricity as their main source of fuel for lighting. Rural-urban disparities are stark and require further improvement. In Liberia charcoal and wood fuels are the universal sources of cooking fuel for both male- and female-headed households and only 1.0 per cent and 1.4 per cent of households rely on cooking gas and electricity as their main source of cooking fuel. This has implications for respiratory and eye infections. With regard to access to improved water sources, it appears that more female-headed households have access to improved water sources than households headed by males. However, some counties continue to face challenges concerning access to improved

water sources. For instance, in River Cess only 37.3 per cent of the county's population has access to improved sources of drinking water. Again, like access to improved water sources, more female-headed households than male-headed households have access to improved toilet facilities. When access to essential services such as education, health facilities and water sources for use by household members is provided at the right time it allows household members to save time when accessing useful services such as primary school education, health facilities and high-quality water. While the gender differences in access/proximity to essential services were small, large rural-urban differences were observed.

In Liberia, the singulate mean age at marriage (SMAM) has been increasing for both males and females. In 2022, the SMAM was 27 years for females and 31 years among males, representing a difference of four years between the sexes. Adolescent childbearing is a social and health challenge and the Government is working with the relevant stakeholders to reduce the incidence and ensure that adolescent girls stay in school. The mean age at birth for those aged 12-19 years was 13 years. Further, while 1.9 per cent of adolescents 12-19 years have had a live birth, about 8.4 per cent have begun childbearing.

Further, neonatal, infant, child and under-5 mortalities have been improving. Yet, with the exception of neonatal mortalities where more male deaths (40.8 deaths per 1,000 live births) than female deaths (30.3 deaths per 1,000 live births) are recorded, more infant, child and under-5 mortalities are reported for females than for males. In addition, differences in rural-urban rates require responsive consideration. Maternal mortality ratio in Liberia is high; 854 deaths per 100,000 live births. The high levels of MMR could be due to differences in methods of estimation and deteriorating healthcare services and poor maternal healthcare seeking behaviours. Since 1974, life expectancy at birth in Liberia has improved and it is higher for females than males. There are significant rural-urban differences in life expectancy which require the Government's commitment in expanding healthcare facilities across geographical areas with the aim of improving access to quality primary healthcare.

In Liberia, more females appear to be migrating. With regard to education, there were a higher proportion of male who were literate than females in Liberia. Moreover, in either urban or rural areas, the proportion of males that were literate was higher than among females. With the exception of Montserrado County,

there is significantly low proportion of literate population across all counties, which requires urgent attention. More females do not have any formal of education compared to males. Some significant efforts have been made in Liberia to ensure that both males and females have access to education at the lower levels of education. Yet, at higher levels of education, remarkably less females are receiving higher levels of education than their male counterparts. More female-headed households have a member engaged in agriculture than male-headed households.

The proportion of elderly males 60 years and above is slightly higher than elderly females. As a sign of significant progress in the health sector, it can be observed that on the whole, more males and females are reaching age 60 years. As such progress is laudable, it is important that old age social security structures are put in place to support the health and socioeconomic needs of the elderly, ensuring that they live dignifying old age lives. Furthermore, relatively more female (11.8 per cent) than males (11.0 per cent) live with disabilities. In Liberia 0.9 per cent of women have ever experienced fistula. Furthermore, while 1.7 per cent of females know someone who has experienced fistula, about 1.3 per cent of males indicated that they know someone who has experienced fistula. Knowledge of fistula is relatively low among males and females. Women in Grand Cape Mount, Grand Kru, Maryland and Gbarpolu were disproportionately affected. This could be as a result of differences in access to health facilities in these counties.

The Government of Liberia and relevant stakeholders should continue to invest in interventions, policies and legislative instruments that are gender-responsive and culturally acceptable in order to reduce and eliminate gender inequality in access to resources. The Revised National Gender Policy should be implemented fully in order to eliminate gender-based violence and promote equitable access to resources and opportunities to all, especially marginalized and vulnerable groups such as boys and girls, pregnant women, the elderly and persons with disabilities. Secondly, with the right investment in education, health, access to economic activities and good governance, Liberia is poised to garner a vibrant human resource that will positively drive its economy in the near future. Specifically, investing in education (for both males and females in rural areas), and ensuring that girls stay in school reduces the chances of dropping out of school, adolescent pregnancy, child marriage and improves access to paid labour in the future, the use of contraception and delays

childbearing. All these have the potential to break the vicious cycle of poverty in a society.

The Ministry of Education and Local Government must continue to expand access to Free Compulsory Basic Education, expand access to secondary and vocational training institutions especially for those in rural areas. It is important that stakeholders pay attention to ensuring that girls have access to education beyond primary school. Thirdly, responsible government institutions and stakeholders must improve access and time it takes to get to key resources like health facilities for maternal, child health and primary healthcare needs and access to potable water. Providing more community health centres and water resources that are safe for use especially in rural areas and counties can do this. Educating households on the need to use improved cook stoves will eliminate the inhalation of smoke from using biomass fuels, which is nearly universal in Liberia, which disproportionally affects women and girls. Fourthly, campaign strategies and legal structures needed to end child and early marriage must be intensified, with partnering agents and the Government focusing on rural communities and providing alternative opportunities like education and vocational training to girls. Government must

fully implement the Affirmative Action Bill or Equal Representation and Participation Act of Liberia. Having a good number of women in Parliament will ensure that women's voices and needs are amplified and provide women the opportunity to contribute to national development through their participation in the national legislative process. To provide for the needs of vulnerable populations such as persons with disabilities, state institutions responsible for providing social protection as emphasized in the ARREST agenda must ensure that these policies are implemented. Key health policies like the National Health Policy and Plan (NHPP 2011–2021), the National Health Policy (2022–2031) and Health Sector Strategic Plan (HSSP) 2022-2026 must be reviewed and implemented by providing adequate funding and health resources to reduce the high childhood mortalities that disproportionately affect females, maternal mortality rate and experience of fistula that affect so many women in Liberia. High-quality rights-based and adolescent and youth-friendly family planning services should be made available to adolescent girls and boys with the aim of preventing unwanted pregnancies and sexually transmitted infections as part of the Government's FP2030 Commitment.

# 1. INTRODUCTION

## 1.1 Background

Gender refers to culturally constructed differences between males and females and it changes over time (Kriger and Keyser-Verreault, 2022; Shepherd, 2022). For many people, the term sex and gender are used interchangeably. While gender is socially constructed, sex is biologically ascribed or determined. The attributes of gender include status, roles, responsibilities, potentialities, power, decision-making and influence of males and females, which reflect their access to, and control over resources and opportunities (Lindqvist et al., 2021; Shepherd, 2022). In many societies, one's sex at birth determines the gender roles that are associated with that sex. In this report while we examine differences based on sex at birth, we draw on how these sex differences of males and females have implications for their respective access to resources, gender equality and their general well-being.

It has become evident that ensuring gender equality and equity is important for national development and the sustainability of societies. Empowering women in decision-making is essential for achieving gender equality and promoting social and economic development. Efforts to promote gender equality in leadership and decision-making have remained a focus globally and in sub-Saharan Africa. Thus, Sustainable Development Goal (SDG) 5 reiterates the urgent need to ensure gender equality and empowerment for women and girls.

The Government of Liberia has made strides in ensuring that the rights of citizens are protected and the gender equality gap is reduced by passing and amending various legislative instruments and advancing programs such as Liberia Rights Act, Executive Order on female genital cutting (FGC), the Rape Law (Penal Law), Revised Girls Education Policy, GOL-United Nations Joint Programme on Sexual and Gender-Based Violence (SGBV) - Prevention and Response and the Liberia Spotlight Initiative. Other initiatives include the National Social Protection Policy and Strategy, Child Rights Law (2011), Administration of Juvenile Justice, Liberia National Action Plan on Women, Peace and Security, and the National Human Rights Action Plan of Liberia, 2013-2018. While these initiatives, legislative instruments and programs have made some important impacts, it behoves on the Government and other key stakeholders to continue to invest and intensify implementation strategies to ensure that efforts being made to reduce the gender inequality gap in Liberia are improved upon. To this end, the gender thematic report seeks to highlight significant data resources that the 2022 Liberia Population and Housing Census (LPHC) gathered on gender differences across various sociodemographic and economic indicators to support programming and monitoring government interventions. The report will further rely on past censuses and other administrative data to expound gender-related issues in Liberia.

## 1.2 Importance of the gender thematic report

The gender thematic report provides important data that are associated with males and females with regard to key socioeconomic, demographic and household indicators. These will provide vital data needed for national and county level programming by contributing to reducing the data deficiency gap on gender-related issues in Liberia. The report will provide essential data for tracking the progress made on the four strategic outcomes of the United Nations Sustainable Development Framework Guidance (UNSDFG) and the goals and objectives of the Agriculture, Roads, Rule of Law, Education, Sanitation/Health and Tourism (ARREST) agenda, 2018–2023. Further, the report will offer data needed for tracking the progress of the gender-related SDGs (3.1, 3.2, 3.8, 4.1, 4.2, 4.3, 4.5, 4.6, 5, 8.5). The report is relevant for national development as it responds to key human security issues by bridging the data gap and providing data on gender disparity in access to education, labour force participation, and access to essential services all aimed at empowering women and improving upon the quality of lives in Liberia.

The census, unlike other traditional surveys is important because it provides national level data on key indicators that are needed to track progress of government and other programme activities that have taken place in the country. Specifically, concerning gender-related issues, the census allows for the examination of crucial issues that pertain to the well-being of males and females countrywide on key sectors like education, health, the economy among others. In addition, the gender thematic report will provide essential data for tracking the Human Development Report (HDR). The HDR tracks gender

parity in education, access to electricity, improved water and toilet sources, etc. Finally, the report will highlight key commitments that the Government of Liberia has made specifically in 2013 to the Addis Ababa Declaration on Population and Development (AADPD) as part of the International Conference on Population and Development (ICPD) agenda.

## 1.3 Demographic, economic and sociopolitical context

### 1.3.1 Population dynamics

Liberia's population continued to grow from 3,476,608 in 2008 to 5,250,187 in 2022. The total fertility rate (TFR) for women aged 15-49 years is 4.2 children, according to the LDHS 2019/2020. Since 2007, fertility has decreased by one child, from 5.2 children per woman to the current level. Fertility varies by residence and county. Women in rural areas have an average of 5.5 children, compared to 3.4 children among women in urban areas. Fertility is, therefore, influenced among other factors by urban versus rural residence, as evidenced by the LDHS. The Liberian population consists of 49.6 per cent females and 50.4 per cent males. Further, there are more urban residents (54.5 per cent) than rural (45.5 per cent).

### 1.3.2 Gender and health

Almost two decades of war in Liberia caused a number of setbacks for the health sector due to the violence and destruction that were associated with the conflicts. According to Murendo and Murenje (2018), the majority of people in Liberia still live in extreme poverty, and this disproportionately affects women since they have unequal access to resources and job opportunities, which keep creating gaps in access to high-quality healthcare. With regard to health insurance for Liberians, the 2019-2020 DHS Report shows that only 4.0 per cent of women and 7.0 per cent of males aged 15-49 years had any type of health insurance (LISGIS et al., 2021). Hence, health insurance coverage is low in the country. It has been shown that the primary factor reducing health disparities between the two groups is access to information (Murendo and Murenje 2018).

Liberia was one of the worst hit countries by the Ebola Virus Disease (EVD) outbreak in 2014. In addition to resulting in 4,809 deaths and 10,675 cases, the EVD pandemic had both short- and long-term negative effects on the economy, including

slower growth and disruptions to several economic sectors (Hodge-Snead and CO, 2017). Due to the fact that EVD pandemic impacted many families' incomes, financial constraints; school fees and supplies, it constituted a substantial hurdle when it came to re-enrolling into the classroom (Hodge-Snead and CO, 2017). In addition, women are more likely than men to have poor health due to detrimental traditional customs like son preference, early marriages, female genital mutilation, gender-based violence, and an overwhelming amount of family caregiving (Murendo and Murenje, 2018; LISGIS, 2013).

Furthermore, the COVID-19 pandemic had various impacts on the Liberian population. Women make up a significant portion of healthcare workers worldwide, and they have been on the frontlines of the COVID-19 response. Moreover, women often have caregiving responsibilities both professionally and personally and this exposed them to a higher risk of infection. There was also a reduction in women seeking family planning, antenatal services among other health seeking services during the lockdown period in Liberia.

Despite all these setbacks, the Government of Liberia in the health sector has made much progress. According to LISGIS et al. (2021), use of modern contraceptive methods has increased to 24 per cent in 2019-20 from 19 per cent in 2013. Due to government policies, the majority of facility births that the Liberian health system has recorded in recent years are the result of women choosing to give birth in low-quality public clinics rather than at home (King et al., 2022). According to LISGIS et al. (2021), in the five years before the survey, 80 per cent of births took place in a medical facility, and a skilled provider assisted 84 per cent. Between 2004 and 2017, the proportion of births occurring in facilities rose from 37 per cent to 80 per cent, although the rate of caesarean sections climbed from 3.3 per cent to 5.0 per cent (King et al., 2022).

### 1.3.3 Gender and education

The educational system in Liberia has seen some major improvement over the years. The importance of education and the requirements that go along with it, such as attendance requirements, moving up the educational ladder, and the requirement to study at home, have slowly been accepted by parents (Hodge-Snead and CO, 2017). Among children in Liberia, educational disparities are significantly influenced by many factors, including location, gender, orphanhood, birth order, exposure to conflict, and parental

education (Cuesta and Abras, 2013). Previous research shows that 16 per cent of women and 27 per cent of men aged 15-49 years had completed senior high or a higher level of education (LISGIS et al., 2021).

The goal of the numerous reforms implemented by the Liberian Government since 2005 has been to rebuild the nation's educational infrastructure, but obstacles still stand in the way of attaining gender-equitable education (Hodge-Snead and CO, 2017). There are still barriers to participation, access, and achievement in education and gender inequality is still rife, which continues to negatively impact girls in sub-Saharan Africa despite initiatives to increase educational opportunities for all children (Ombati and Ombati, 2012). Though great strides have been made in the field of education in Liberia, according to the 2019 LDHS report a large number of the population just have basic education or no formal education at all (LISGIS et al., 2021; Cunningham, et al., 2023).

In urban areas, 21 per cent of males of age 6 years and above have no education compared to their counterparts in the rural areas with 41 per cent. On the other hand, 31 per cent of females in urban areas age 6 years and above have no education compared to their counterparts in the rural areas with 57 per cent (Hodge-Snead and CO, 2017). A study by Sipsma, et al. (2013) showed that the majority of women from their sample had no education and resided in rural areas with little access to resources. In terms of the literacy rate of Liberians, the 2019−2020 LDHS report shows that 52 per cent of females and 75 per cent of males aged 15-49 years were literate (LISGIS et al., 2021).

Some studies showed that Liberian women's academic and professional aspirations are nevertheless hampered by patriarchal gender norms and societal obligations, such as to perform rigidly defined home and parental roles (Cunningham, et al., 2023; Hodge-Snead and CO, 2017). Over time, however, families are prioritizing their daughter's education, due to the shift in the public's appreciation of women's contributions in the social, economic, and political spheres (Fuest, 2008).

The Annual School Census (2021-22) of Liberia for instance addressed many challenges facing Liberia's Education Sector, including over aged enrolment, repetition and gender inequalities. According to the school census, the overall percentage of females that enrolled at the primary level increased from 48.9 per cent to 50.0 per cent between 2019-2020 and 2021-2022. Further, gender parity has been achieved at the lower levels of education.

### 1.3.4 Gender and politics

Though there has been a great improvement almost everywhere, concerning women's participation in the political process in the last 25 years, the gap between men and women's political participation is huge. In many parts of the world, women's involvement in the political process falls proportionately below 50 per cent of the population, which they approximately represent, or their contribution to society. In Liberia, a low level of women's participation in the decision-making process at all levels is still witnessed although institutions that once defined women's place in society appear to have disintegrated or been mitigated as a result of the conflict, which also opened up new avenues for social, political, and economic mobility (Fuest 2008). According to Dennis (2005), the Liberian elections held in 2005 was deemed by the majority of domestic and foreign observers to be free and fair after a long period of civil wars. Ellen Johnson-Sirleaf won the election and became the first elected female head of state in Liberia and Africa (Fuest, 2008; Kodila-Tedika and Asongu, 2018). Women's equal participation in decision-making at the national and local government levels is critical for creating gender sensitive policies and for promoting sustainable development politics. Unfortunately, globally, women are not well represented in local governance and they face a number of barriers that range from cultural exclusion to the resistance of key political institutions and machineries to creating gender balanced local administrations. Global statistics continue to show abysmally low increases of about 0.5 per cent in women's political participation that it will take years to reach parity without consented effort (ABANTU for Development, 2009).

In line with the United Nations recommended minimum threshold for women's effective participation, the "Affirmative Action Bill" or Equal Representation and Participation Act of Liberia was passed into law and establishes a quota for women (30 per cent) in Parliament endorses several rights and principles in favour of women, with specific measures to increase participation of women in politics. The implementation of this law is particularly important due to the low level of education of females in the country. Evidence suggests that participation in politics and decision-making in Liberia is strongly male-dominated. Nationwide, the distribution of power deliberately favoured men. During 2018-2023, there have been 15 male ministers compared to five females on the Cabinet.

### 1.3.5 Gender-based violence and women's empowerment

The normalization of violence in several political and social domains could be attributed to the protracted civil conflict and its associated trauma (Abramowitz and Moran, 2012). Studies have shown that girls and women in Liberia are affected by SGBV, which is widespread (Cunningham, et al., 2023; Shaikh, 2022; Hodge-Snead and CO, 2017; Stark et al., 2013). In relation to physical violence, 60 per cent of women aged 15-49 years in Liberia have experienced this phenomenon and nine per cent have experienced sexual assault (LISGIS et al., 2021). Customary norms present obstacles to attaining justice, particularly for women and girls, and are a major cause of gender inequality (Cunningham, et al., 2023; Hodge-Snead and CO, 2017). Harmful practices like FGC and child marriage among others are still deep-rooted in the Liberian society. Women and girls are the main victims of these harmful traditional practices, which affect their health and often to the point of permanent physical, psychological and emotional damages. Of the women who have ever been victims of physical or sexual abuse, 42 per cent never reported the violence to anyone or sought assistance to stop it (LISGIS et al., 2021).

It is estimated that more than one in 10 girls have been victims of rape, and one in four girls reported having suffered violence of some kind. Transactional sex has become a major sexual risk behaviour practised by some adolescent girls. These girls sometimes participate in transactional sex in order to pay for school fees or other educational obligations as a result of increased financial hardship. It is to be noted that one of the leading causes of girl child school dropouts is early and unplanned pregnancy resulting from transactional sex (Hodge-Snead and CO, 2017). In addition to endangering the health of young mothers and their children, permissive and even supportive attitudes toward child marriage and adolescent pregnancy in Liberia, along with household dynamics that shift decision-making power away from women, also limit opportunities for education as pregnant girls drop out of school and limit employment opportunities due to the multiple demands on women (Cunningham, et al., 2023). Thus, compared to women who lack decision-making autonomy, those who are empowered to make decisions in all areas are at a lower risk of experiencing gender-based violence (Tsegaw et al., 2022).

One known associated factor for both sexual and non-sexual violence is marriage (Stark et al., 2013). It is estimated that of the women ever married,

55 per cent of them have experienced emotional, physical, or sexual abuse at the hands of their spouse (LISGIS et al., 2021). They were made to feel awful, physically coerced into unwanted sex, slapped and insulted as forms of physical, mental, and sexual intimate partner violence (IPV) (Shaikh, 2022). The most prevalent injury types among women who have ever encountered physical or sexual abuse are cuts, bruises, or aches (30 per cent), followed by burns (14 per cent) and eye injuries, dislocations, or sprains (14 per cent) (LISGIS et al., 2021). Injuries sustained by individuals who have been sexually abused by their spouse (49 per cent) were more likely to be reported than those who had sustained physical abuse injuries by their spouse (34 per cent) (LISGIS et al., 2021). Among married women who have ever been victims of physical or sexual abuse at the hands of their spouse, 34 per cent have suffered injuries (LISGIS et al., 2021).

One possible explanation for attitude towards wife beating could be that women who have a favourable attitude toward husband beating may just accept it as a regular aspect of married life and end up being IPV victims (Tsegaw et al., 2022). Though a legal instrument has been signed into law (the Domestic Violence Act, 2019) that seeks to abolish all forms of violence meted out against women, children and men, this phenomenon still exists. While there are laws against domestic abuse, women still stay away from reporting them for many reasons, such as trauma they will face in society, in addition to cultural and religious restraints. Among women who have experienced physical or sexual abuse and who reported seeking help, 6 per cent sought help from the police, followed by religious leader (4.0 per cent), and 1 per cent each sought help from doctors or medical personnel, lawyers, and social organizations (LISGIS et al., 2021). Also, concerning common places to seek for help after experiencing sexual or physical violence, 70 per cent of women reported they sought help from their own family, 30 per cent from their husband's/partner's family, 19 per cent from a neighbour, and 18 per cent from a friend (LISGIS et al., 2021).

Both statutory laws, customary and traditional norms govern the way of life in Liberia. Despite maintaining that men and women were not "equal", all of the pre-war indigenous tribes in Liberia created avenues that supported the agency and voices of women and acknowledged that they were entitled to be free from unfair treatment (Abramowitz and Moran, 2012). The 2009 National Gender Policy for Liberia, for instance, aimed to eliminate the marginalization of women and girls by 2020 by adopting strategic measures pertaining to gender and violence. Under the leadership of the Ministry of Gender, Children and

Social Protection, the 2019 Domestic Violence Bill was ratified in Liberia to offer safety and support to victims of violence and aid in abolishing all forms of violence against women, children and men (LISGIS et al., 2021). These laws enacted helped place sanctions and served as deterrents for gender-based violence (GBV), mostly perpetrated against women. The strategies adopted included the creation of gender focal points, the provision of training in gender and human rights, the augmentation of gender capacity, the adoption and enforcement of legislation prohibiting sexual harassment, and the gathering of police data (Hodge-Snead and CO, 2017).

### 1.3.6 Gender and labour force participation

Gender and traditional organizations are two distinct concepts that can be interconnected in various ways, particularly in the context of societal norms, workplace dynamics and cultural practices. Traditional organizations have often reinforced traditional gender roles. In the Liberian society, many workplaces have been male-dominated, with men occupying leadership positions while women are assigned more supportive or administrative roles. This reflects societal norms and expectations regarding gender roles. These norms and taboos are often deeply rooted in the cultural, historical and social setting of the Liberian society. Traditionally, the roles and responsibilities for individuals are based on their gender. For instance, women are expected to take on caregiving and domestic roles, while men are expected to be breadwinners for the family. As a result, these expectations can limit women's choices when it comes to education or career pathways.

In the employment sector, women play a major role in Liberia's labour force participation, and household income generation, working as both formal and informal workers. In the rural area, most women are farmers who sell their own surplus while in the city, they engage in petty trading activities characterized by subsistence enterprises. Due to the gendered division of labour at home, where they carry out a larger share of unpaid family work, more women are less able to continue to be in full-time employment. The high participation of women in the informal sector stems from their levels of illiteracy, lack of employable skills as well as the burden of home and family care imposed upon them through the socio-cultural allocation of gender roles and tradition. Thus, a contributing factor to women's low labour force participation may be due to lack of empowerment (Sipsma et al., 2013).

According to a survey by the World Bank, women in Liberia produce 60 per cent of all agricultural goods

and make up a sizable portion of entrepreneurs as 77 per cent of women report being in business for them. These reports suggest that women in Liberia while contributing to the economic growth are mostly employed in the informal sectors. This notwithstanding, due to high levels of gender power disparities in Liberia, women are more likely to become dependent on male partners (Sipsma et al., 2013). With regard to employment status, some significant gender differences are observed. According to the 2019–2020 LDHS report, 61 per cent of women and 81 per cent of men are currently employed (LISGIS, 2021). Moreover, while nearly all currently married men (97 per cent) are employed, about 76 per cent of currently married women are. Further, of those employed, about a third (33.6 per cent) of women are in unpaid employment compared to 17.2 per cent of men. In addition to those employed, while 13 per cent of women and one in 10 men are paid in cash and in-kind, about half (52 per cent) of employed women and 69 per cent of employed men receive only cash as remuneration for their work (LISGIS et al., 2021).

## 1.4 Objectives

The primary objective of the gender thematic report is to present evidence of the sex differentials with regard to key socioeconomic and demographic indicators in Liberia for use by policy and decision-makers, researchers and other key stakeholders in understanding the development processes in the country. Specifically, the report:

i.   Examines gender differences in demographic characteristics.

ii.  Analyses gender disparities in households with regard to socioeconomic characteristics.

iii. Analyses gender disparities in households with regard to specific household conditions.

iv.  Investigates gender disparities among vulnerable populations.

v.   Provides recommendations for future policy formulation and development planning.

## 1.5 Methodology

### 1.5.1 Sources of data

The gender thematic report analyses sex differentials of various socioeconomic and demographic variables

obtained from the 2022 National Population and Housing Census data. Other complementary data sources include past LPHC, and Liberia Demographic and Health Surveys (LDHS). The analysis in this report relies on information regarding various socioeconomic variables such as type of place of residence, county, marital status, level of education, economic activity and poverty, segregated by sex. Further, the analysis focuses on sex differentials and demographic characteristics such as age group, marriage, mortality, fertility and migration. Also, household indicators like house ownership and access to essential amenities were collected during the census and are segregated by sex. Disability status segregated by sex and, other health indicators are also presented. The relative frequencies of males and females are compared to absolute frequencies (total number) and presented in graphs and tables.

### 1.5.2 Methods

Two units of analysis were used. Some of the analyses are conducted at the household level while others are at the individual. Vital indicators that are measured at the household level include household size, tenure of household, main source of fuel for lighting and cooking in the household, ownership of essential household amenities, and household engagement in agricultural activities. At the individual level, level of education, marital status, crude death rates, age-specific death rate, disability, etc., were examined. The report uses graphs and tables to present frequencies and cross-tabulations. The analyses focus on trends, patterns and distributions. All complete tables are attached in the appendix.

### 1.5.3 Definition of concepts

**Household:** This refers to a person or a group of two or more persons (related or unrelated) who live together in the same house or compound, share the same housekeeping arrangements (eating and sleeping), and are catered for as one unit and recognize one person as the head.

**Household population:** These are persons who are usual members of households and visitors to the households present on Census Night.

**Household size**: The number of persons recorded in a household on Census Night.

Dividing the household population by the number of households derives average household size. It is the average number of persons living in households in a particular geographical area on Census Night.

**Gender/sex:** For the purposes of this report, gender refers to sex assigned at birth, that is, whether an individual is male or female.

**Marital status** refers to the civil status of a person aged 12 years or older as at Census Night.

**Agricultural household:** This refers to households in which at least one member of the household is engaged in Agriculture.

**Sex Ratio:** The ratio between the number of males and the number of females, expressed as the number of males per 100 females.

## 1.6 Limitations of data

The 2022 Liberia PHC did not collect information on gender roles, norms and expectations. This can overlook differences in caregiving roles, access to social and economic resources and decision-making dynamics between genders. The report, however, relies on the sex of the individuals as a proxy for gender. Although the sex of individuals does not totally highlight the challenges of men and women in Liberia, it provides the Government and key stakeholders current national level information about the state of men and women in the country.

## 1.7 Organization of report

The gender thematic report is made up of six chapters. Chapter One comprises the background to the report and highlights the main gender issues in Liberia. It also presents the objectives of the thematic report, the sources of data and methodology, definition of concepts as well as the limitations. In Chapter Two, results on gender dimensions of households are presented. The results pertaining to marriage, fertility, mortality and migration are the focus of Chapter Three. Chapter Four consists of sex differences in education and economic activity including agriculture-related activities. Gender differences among vulnerable populations, specifically persons with disabilities are also presented in this chapter. Also, in Chapter Five, health-related issues such as fistula, and also GBV and FGC are highlighted. The sixth chapter summarizes the results of the study and presents some conclusions and recommendations based on the major findings from the analysis.

# 2. GENDER DIMENSIONS OF HOUSEHOLD INDICATORS

## 2.1 Demographic indicators

### 2.1.1 Age and sex distribution of the population

The age-sex structure of a population shows changes in a population by age and sex. These changes are associated with key demographic factors like fertility, mortality and migration. The population pyramid in Figure 1 shows the age and sex distribution of Liberia in 2008 and 2022. Figure 1 demonstrates significant changes that have taken place in the population structure since 2008. It can be observed that at the bottom of the pyramid in 2022, the size of the population has narrowed compared to 2008, which had a large base. This is an indication that the number of children being born has reduced overtime. Also, the population below age 15 years has reduced from 42 per cent to 34.2 per cent between 2008 and 2022. This represents significant changes in the age structure of the population. It is to be noted that the proportion of persons aged 15-35 years has increased from 35.7 per cent in 2008 to 40.3 per cent in 2022. These results depict the youthfulness of the population of the country as in the case of many developing countries. It is observed that the economically active population (those aged 15-64 years) also increased over the years.

In 2022, the population aged 15-64 years was 63.0 per cent as compared to 54.6 per cent in 2008. The current data suggest that Liberia's population is a classic example of the youth bulge hypothesis. Youth bulge is characteristic of a national population when the youth aged 15- 24 years constitute 20 per cent of the total national population. Generally, such populations are young, with children and the youth concentrated in the younger age groups. High fertility levels and declining mortality rates are the factors associated with populations that are characterized by the youth bulge. This bulge can be a demographic

dividend or a curse depending on the policy initiatives put up by the Government of Liberia. Therefore, it is important that the Government invests adequately in the various population groups as shown by the changes in the population age structure especially in the increasing size of the population of the youth. It is only when the right investment is made and harnessed that a growing youthful population will yield productive gains for the development of the country. Concerning the elderly population, the results show that the proportion of the population 60 years and above has reduced from 4.9 per cent to 4.5 per cent between 2008 and 2022 (as shown in Figure 1). However, in terms of absolute numbers, it is observed that the elderly population has increased to 236,644 in 2022 from 170,941 in 2008. These are indications of changing population structure from a young population to one that is ageing steadily. Increasing proportion of the elderly population has implications for long-term investment on the healthcare services for this population.

The sex distribution of the population is shown in Figure 1. The sex composition of the population has changed marginally overtime. In 2008, males and females made up 50.0 per cent each of the population. However, by 2022, there were slightly more males (50.4 per cent) than females (49.6 per cent) in the population. Across the age groups, there are marked differences in terms of sex. In 2008, females constituted 27.4 per cent of the population aged 15-64 years while males were 27.0 per cent. However, in 2022, the proportion of females aged 15-64 years had increased to 31 per cent while males constituted 31.9 per cent. In the case of those who were aged 60 years and above, females constituted 2.5 per cent in 2008 while that of male was 2.4 per cent of the population. By 2022, this reduced to 2.3 per cent for males and 2.2 per cent for females. In 2022, however, these figures have fallen to 2.2 per cent for females and 2.3 per cent for males.

## Figure 1: Population pyramid showing the age-sex structure of Liberia



2008

| Age | Male | Female |
|---|---|---|
| 80+ | 0.4 | 0.4 |
| 75-79 | 0.3 | 0.3 |
| 70-74 | 0.4 | 0.4 |
| 65-69 | 0.6 | 0.6 |
| 60-64 | 0.7 | 0.8 |
| 55-59 | 0.9 | 0.8 |
| 50-54 | 1.2 | 1.0 |
| 45-49 | 1.9 | 1.6 |
| 40-44 | 2.3 | 2.1 |
| 35-39 | 2.7 | 2.8 |
| 30-34 | 3.2 | 3.5 |
| 25-29 | 4.0 | 4.4 |
| 20-24 | 4.7 | 4.1 |
| 15-19 | 5.4 | 5.4 |
| "10-14" | 6.2 | 5.9 |
| "5-9" | 7.1 | 6.9 |
| 0-4 | 7.9 | 7.9 |

Percent

2022

| Age | Male | Female |
|---|---|---|
| 80+ | 0.3 | 0.4 |
| 75-79 | 0.2 | 0.2 |
| 70-74 | 0.4 | 0.4 |
| 65-69 | 0.5 | 0.4 |
| 60-64 | 0.9 | 0.8 |
| 55-59 | 0.9 | 0.8 |
| 50-54 | 1.8 | 1.5 |
| 45-49 | 1.9 | 1.6 |
| 40-44 | 3.3 | 2.7 |
| 35-39 | 3.2 | 3.2 |
| 30-34 | 4.2 | 4.2 |
| 25-29 | 4.1 | 4.3 |
| 20-24 | 5.6 | 5.8 |
| 15-19 | 6.0 | 6.1 |
| "10-14" | 6.0 | 6.0 |
| "5-9" | 5.8 | 5.9 |
| 0-4 | 5.2 | 5.3 |

Percent

### 2.2 Sex composition

Figure 2 portrays the trends in sex composition of the Liberian population from 1984 to 2022. The results indicate that the sex ratio, which estimates the number of males to every 100 females, increased from 98 males to 100 females in 1962 to more than 102 males for every 100 females in 1984, and fell to 100.2 males to 100 females in 2008 (Figure 2). By 2022, however, there were about 101.5 males per 100 females. Across county, significant changes in sex ratio overtime are observed. In 1984, 10 counties had sex ratios below the national average of 102 males for every 100 females. Among these 10 counties, eight; Grand Cape Mount (89.2), Grand Kru (91.8) Nimba (95.9), River Gee (96.2) Bong (96.3), Grand Gedeh (96.3), Maryland (98.9) and River Cess (99) had sex ratios below 100. By 2022, however, only

two counties had sex ratios below 100. These are Lofa (99.4) and Montserrado (96.3). Further, four counties had sex ratios above 110. In 1984, the sex ratio of Montserrado was 117.8 males for every 100 females and moved to 96.7 males per 100 for every 100 females in 2008 and then to 96.3 males for every 100 females in 2022. Also, the sex ratio of Grand Cape Mount, Grand Gedeh, Grand Kru, Gbarpolu, Nimba, River Gee and River Cess has been increasing overtime. For example, in 1984, the sex ratio of Grand Cape Mount increased from 89.2 males for every 100 females to 105.7 males for every 100 females in 2008 and then to 117.8 males for every 100 females in 2022. These significant differences in sex ratio could be attributed to varying cultural and socioeconomic conditions across the various counties such as low access to healthcare services and widespread migration patterns.

**Figure 2: Trends in sex composition of the Liberian population (1984–2022)**



| | 1984 | 2008 | 2022 |
|---|---|---|---|
| Urban | | | 97 |
| Rural | | | 107.1 |
| Bomi | 108 | 104.3 | 105.3 |
| Bong | 96.3 | 97.8 | 101.2 |
| Grand Bassa | 109.6 | 100.1 | 104.8 |
| Grand Cape Mount | 89.2 | 105.7 | 117.8 |
| Grand Gedeh | 96.3 | 107.8 | 113.7 |
| Grand Kru | 91.8 | 104.9 | 108.9 |
| Gbarpolu | 101.7 | 111.2 | 113.9 |
| Lofa | 117.8 | 93.3 | 99.4 |
| Margibi | 100.9 | 101.7 | 100.3 |
| Maryland | 98.9 | 108.9 | 101.3 |
| Montserrado | 107.8 | 96.7 | 96.3 |
| Nimba | 95.9 | 99.2 | 100.7 |
| River Cess | 99 | 108.6 | 110.7 |
| River Gee | 96.2 | 109.2 | 110.6 |
| Sinoe | 103.1 | 115 | 110.6 |
| Total | 102 | 100.2 | 101.5 |

## 2.3 Gender, household headship, place and county of residence

Figure 3 displays the percentage distribution of household headship by place of residence in Liberian between 2008 and 2022. In the 2022 LPHC, 1,187,272 households were reported compared to 670,295 households in 2008. The results show that two in three (64.4 per cent) of all households are headed by males compared to 35.6 per cent headed by females. The analysis further shows that there were more male-headed households than female-headed ones in both urban and rural areas. For example, in urban areas, 61.3 per cent of households were headed by males compared to 38.7 per cent for females. The results further show that between 2008 and 2022, there appear to be interesting shifts suggesting that female headship rates in both rural and urban areas are increasing in Liberia. In the urban areas, there were about seven in 10 (69.7 per cent) male-headed households in 2008 which saw a decline in 2022 by

eight percentage points (61.3 per cent). For female-headed households, the figure was 30.3 per cent in urban areas in 2008 and increased to 38.7 per cent by 2022. In rural areas in the country, male-headed households were 76.1 per cent in 2008 while that of female-headed households were 23.9 per cent. However, by 2022, the male-headed households in the rural areas in Liberia fell to 68.2 per cent while that of female-headed households increased to 31.8 per cent. There are two plausible reasons that can be attributed to the increasing trends in female household headship in Liberia. First, is the impact of the Liberia civil war which may have claimed the lives of male heads and transferred the responsibilities of household care onto females. Secondly, the large migration movement in Liberia, which is dominated by men, could transfer household headship to women who stay to take care of the household.

**Figure 3: Per cent of household headship by place of residence**
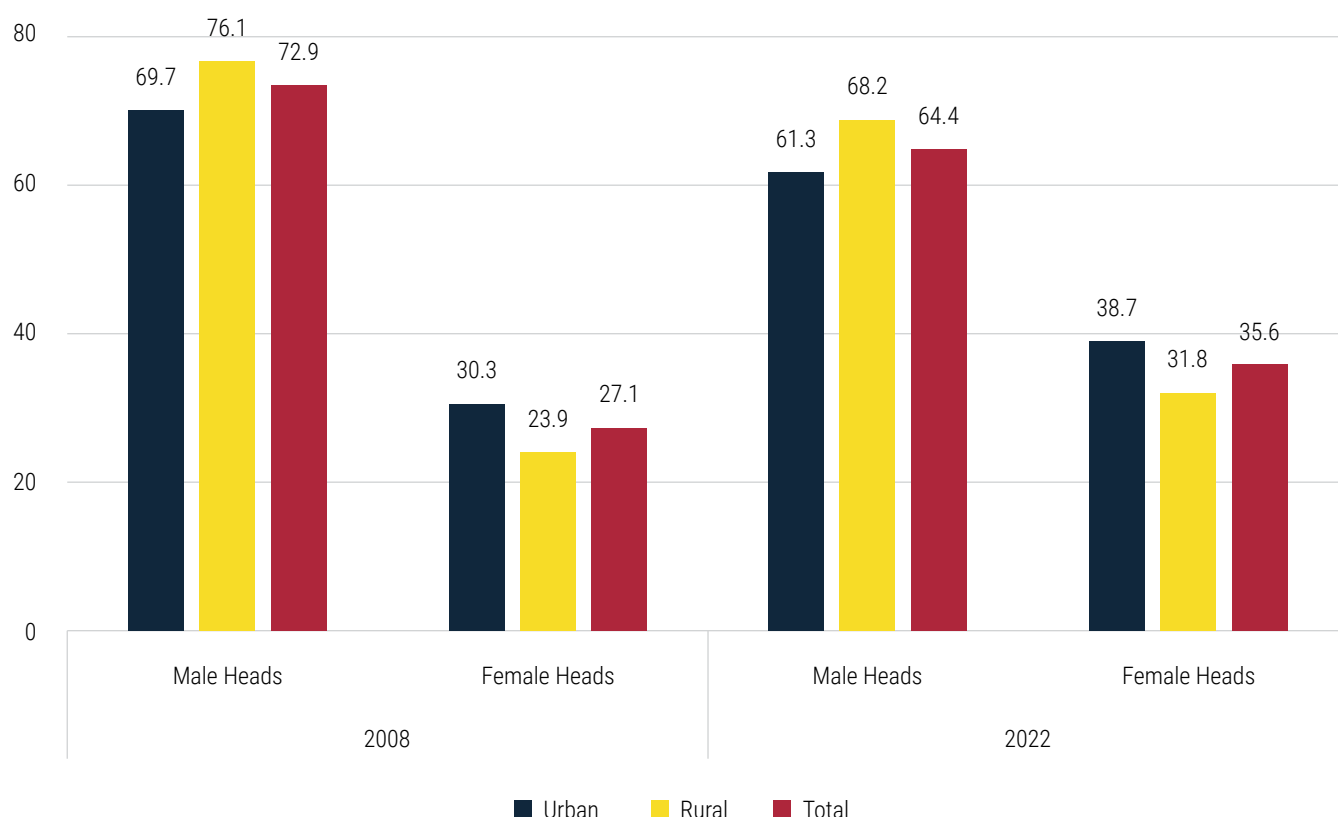


Table 1 shows the per cent of household headship by sex and county in Liberia. The results show that across the counties, there were fewer female-headed households than there were male-headed households. However, in some counties there were higher proportions of female-headed households than the national average. These counties are Maryland (41.0 per cent), Lofa (40.7 per cent), Bomi (40.4 per cent), River Gee (39.6 per cent), Grand Kru (38.7 per cent) and Montserrado (37 per cent). Conversely, counties with low female household headship compared to the national average were River Cess (28.0 per cent), Grand Bassa (28.5 per cent) and Gbarpolu (29.9 per cent). The proportion of households headed by females have increase since the 2008 LPHC across all counties. Counties like Maryland and River Gee, experienced some of the greatest shifts in household headship between 2008 and 2022. For example, in Maryland and River Gee, while about seven in 10 households were headed by males in 2008, by 2022, close to six in 10 of all households were male-headed, suggesting that about four in 10 households were headed by females in 2022. In Grand Gedeh and Grand Cape Mount, although rates in female-headships have increased, these are not as large as the other counties. For instance, in 2008, while one in four (24.8 per cent) of the households in Grand Gedeh were headed by females, by 2022, 30.3 per cent of households were female-headed compared to Grand Kru where female headship increased from 25.8 per cent to 38.6 per cent between 2008 and 2022. Increasing rates in female-headed households could be attributed to male out-migration, widowhood, increases in divorce rates and in some cases premarital pregnancies (Odimegwu et al., 2020).

**Table 1: Per cent household headship by sex and county, 2008 and 2022**

| County of residence | 2008 | | 2022 | |
|---|---|---|---|---|
| | **Male heads** | **Female heads** | **Male heads** | **Female heads** |
| Bomi | 70.8 | 29.2 | 59.6 | 40.4 |
| Bong | 72.7 | 27.3 | 64.5 | 35.5 |
| Gbarpolu | 80.5 | 19.5 | 70.1 | 29.9 |
| Grand Bassa | 79.2 | 20.8 | 71.5 | 28.5 |
| Grand Cape Mount | 73.4 | 26.6 | 68.1 | 31.9 |
| Grand Gedeh | 75.2 | 24.8 | 69.7 | 30.3 |
| Grand Kru | 74.2 | 25.8 | 61.4 | 38.6 |
| Lofa | 67 | 33 | 59.4 | 40.6 |
| Margibi | 76.1 | 23.9 | 65.8 | 34.2 |
| Maryland | 73.9 | 26.1 | 59.1 | 40.9 |
| Montserrado | 71.1 | 28.9 | 63.0 | 37.0 |
| Nimba | 72.3 | 27.7 | 65.6 | 34.4 |
| River Cess | 79.5 | 20.5 | 72.0 | 28.0 |
| River Gee | 74.8 | 25.2 | 60.4 | 39.6 |
| Sinoe | 78.6 | 21.4 | 68.1 | 31.9 |
| Total | 72.9 | 27.1 | 64.4 | 35.6 |

## 2.4 Gender, household headship and household size

Household size is a vital demographic indicator that has implications for quality of life of household members in terms of access to essential resources such as nutrition, sleeping arrangement, expenditure on health and education. It has been shown that as household size increases, the potential risk of experiencing poverty also rises and households that have higher dependency ratio are more likely to be poor (Chanie and Begashaw, 2019). Past research suggests that households with large sizes are more likely to be impoverished as the dependency increases especially those with a lot more children (Munoz-Boudet et al., 2021).

Figure 4 shows the average household size by sex of household head in Liberia between 2008 and 2022. The association between sex of household head and average number of household members by place of residence and county are also presented in Table 2. The results indicate that the average household size in Liberia fell from 5.1 in 2008 to 4.4 in 2022 (Figure 4). Comparatively, the mean household size of male-headed households was 4.7 while that of female-headed households was 5.3 in 2008. However, in 2022, the size of male-headed households decreased to 3.4, while that of female-headed households increased to 6.1. Concerning rural and urban differences in 2022, the results show that in urban areas the mean household size for male-headed households was 3.5 and that for female-headed households was 5.7. In rural areas, the mean household size for female-headed households was 6.7 and this is double that for male-headed households (3.3).

**Figure 4: Average household size by sex of household head, 2008 and 2022**
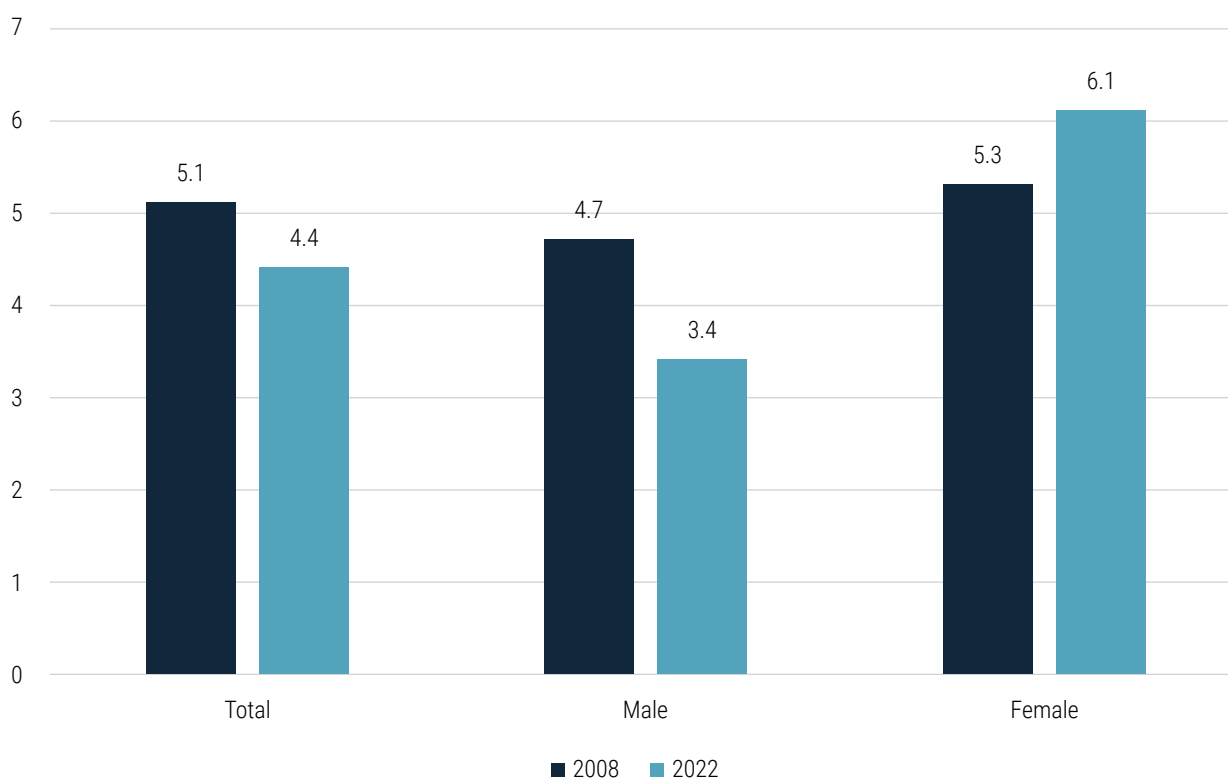


Table 2 shows the mean household size by county in 2022. It can be observed that out of the 15 counties, eight (Bomi, Bong, Grand Bassa, Grand Cape Mount, Margibi, Montserrado, River Cess and Gbarpolu) have mean household sizes lower than the national average of 4.4. The counties with the largest household sizes are Grand Kru (5.3), River Gee (5.2) and Sinoe (5.0). Across counties, the mean household size of male-headed households was smaller than that for female-headed households. The five counties with the largest variation in household size for female-headed households compared to male-headed households are Grand Gedeh (7.6 versus 3.7), Sinoe (7.5 versus 3.9), River Cess (7.3 versus 3.1), Grand Bassa (7.2 versus 3.0) and Nimba (7.0 versus 3.7). The results show that female household heads have more responsibilities in terms of number of people to provide for in their households and yet they are more likely to have lower incomes. This could suggest they may face more financial difficulty providing for the needs of their household members compared to male household heads.

**Table 2: Average household size by sex of household head and county of residence**

| Place of residence | Total | Male-headed households | Female-headed households |
|---|---|---|---|
| Urban | 4.3 | 3.5 | 5.7 |
| Rural | 4.4 | 3.3 | 6.7 |
| County of residence | | | |
| Bomi | 3.4 | 3.0 | 4.1 |
| Bong | 4.2 | 3.3 | 5.9 |
| Gbarpolu | 4.2 | 3.2 | 6.6 |
| Grand Bassa | 4.2 | 3.0 | 7.2 |
| Grand Cape Mount | 3.9 | 3.1 | 5.6 |

| Place of residence | Total | Male-headed households | Female-headed households |
|---|---|---|---|
| Grand Gedeh | 4.9 | 3.7 | 7.6 |
| Grand Kru | 5.3 | 4.5 | 6.5 |
| Lofa | 4.9 | 4.1 | 6.0 |
| Margibi | 4.2 | 3.2 | 6.1 |
| Maryland | 4.6 | 3.9 | 5.6 |
| Montserrado | 4.2 | 3.2 | 5.8 |
| Nimba | 4.8 | 3.7 | 7.0 |
| River Cess | 4.3 | 3.1 | 7.3 |
| River Gee | 5.2 | 4.5 | 6.2 |
| Sinoe | 5.0 | 3.9 | 7.5 |

## 2.5 Gender and tenure of household/land ownership

There is an increasing recognition that the ownership of, access to and control over assets constitute a critical element in the determination of the well-being of households and individuals. The conditions under which buildings/houses occupied by households are obtained have implications for access to safe dwelling for members of the household. Studies show that globally female-headed households have poor household tenure arrangement compared to their male counterparts. Further, women have fewer resources needed to provide safe dwellings for their household. Thus, SDG 1, Target 1.7 reiterates the importance of ensuring equal rights to ownership and control over land and other forms of property and inheritance for both men and more especially women as one of the ways of eradicating poverty.

Figure 5 depicts the tenure of household/land ownership by sex of household head in Liberia between 2008 and 2022. The results show that in 2022, 31.6 per cent of female-headed households lived in rented dwellings compared to 26.1 per cent of male-headed households. In 2008, there was no indicator to measure whether the household lived in a rented structure. The results indicate that 18.7 per cent and 39.9 per cent of male-headed households lived in inherited and constructed dwellings,

respectively. On the other hand, 19.2 per cent and 35.5 per cent of female-headed households lived in inherited and constructed dwellings, respectively. In 2008, however, while 53 per cent and 14.9 per cent of male-headed households indicated that they lived in constructed and inherited households, for female-headed households, 49.2 per cent and 16.9 per cent reported that they lived in constructed and inherited houses, respectively.

This shows a gender gap in assets ownership in Liberia. Two plausible reasons may account for these unique differences between the male- and female-headed households and property or assets ownership. First, Liberia is a patriarchal society where properties (including land) of deceased parents are bequeathed to male sons to the disadvantage of female daughters, which may lead to the increased proportion of inherited properties to male-headed households. Owners of places of residence and agricultural land may principally acquire these assets through inheritance, which forms a major mode of property acquisition in the country. Secondly, labour force participation and employment which largely favoured males than females in Liberia can significantly influence and reduce women's chances when it comes to acquisition of assets and properties through outright purchase due to low purchasing power.

## Figure 5: Tenure of household/land ownership by sex of household headship

2008



Male-headed households              Female-headed households

- Constructed
- Private Individual (Provided)
- Inherited
- Squatter
- Private Company (Provided)
- Other
- Purchased
- Government (Provided)
- Mortgaged/NHA

2022



Male-headed households              Female-headed households

- Constructed
- Rented
- Inherited
- Purchased
- Squatter
- Private Individual (Provided)
- Private Company (Provided)
- Gifted
- Government (Provided)
- Other
- Mortgaged/NHA
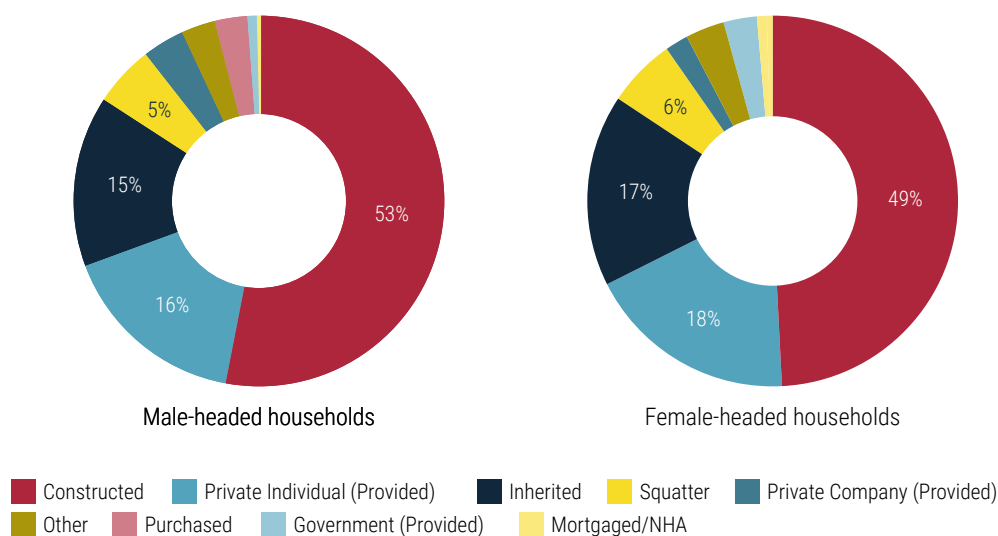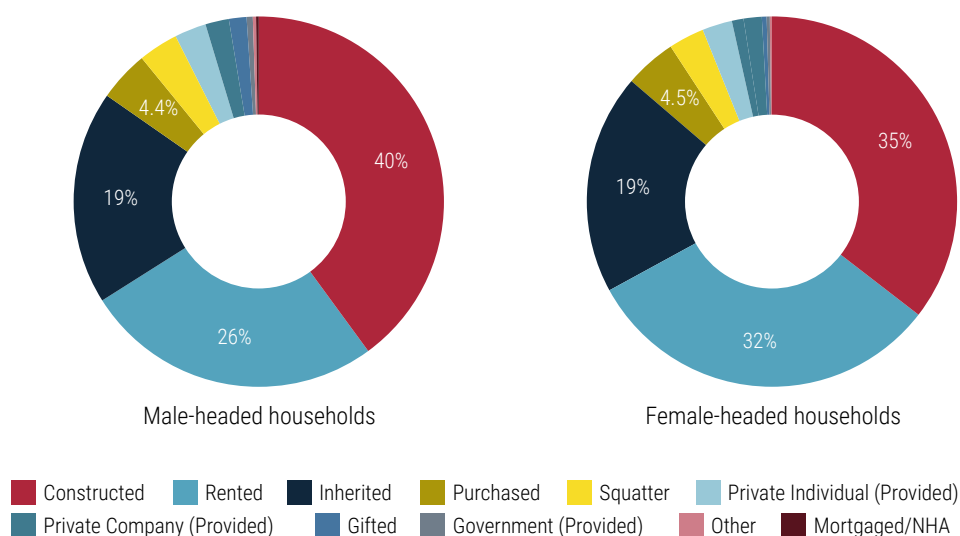
### 2.6 Gender and household main source of fuel for lighting

This section assesses the main source of fuel for lighting at the household level. The aim is to highlight improved and unimproved sources of fuel available to households for lighting and cooking by sex of household head. With regard to lighting, households were asked to indicate their main source of fuel for lighting. Individuals who have access to electricity included those who rely on their own generator, Liberia Electricity Company (LEC), West Africa and

Community electricity. Access to electricity as the main source of fuel for lighting for households is relatively low. Nearly a third of all households in Liberia rely on electricity as the main source of fuel for lighting (Figure 6). However, among male- and female-headed households, there was no significant difference in the proportion who rely on electricity as their main source of fuel for lighting (32.2 per cent among male-headed households and 33.4 per cent among female-headed households). This is however, five times increase from 2008.

The results further show significant rural and urban differences with regard to households' main source of fuel for lighting. While among male-headed households in urban areas 55.3 per cent have access to electricity, for male-headed households in rural areas, only 7 per cent have access to electricity. Similarly, 51.4 per cent of female-headed households in urban areas rely on electricity as their main source of fuel for lighting compared to 6.7 per cent of their rural counterparts. Thus, for both male- and female-headed households in rural areas, access to electricity as the main source of lighting is a challenge. The use of Chinese battery light as main source of fuel for lighting was widespread. More than seven in 10 male- and female-headed households rely on Chinese battery light as their main source of lighting in rural areas compared to the national average of 54.8 per cent and 55.0 per cent of male- and female-headed households, respectively. Also, while about 7 per cent of households in Liberia use unimproved sources of fuel for lighting, in rural areas about 11.7 per cent rely on these sources of fuel for lighting compared to about 3 per cent in urban areas (male- and female-headed household; 2.8 per cent versus 3.1 per cent).

Significant differences exist across counties with regard to access to electricity. With the exception of households in Montserrado, less than 32 per cent of all households in the other 14 counties have electricity as their main source of fuel for lighting among both male- and female-headed households. Among male- and female- headed households in Montserrado, more than 6 in 10 (66.2 per cent versus 66.4 per cent) rely on electricity as their main source of fuel for lighting. However, in Lofa while 5.9 per cent and in River Cess 3.9 per cent of male-headed households rely on electricity, among female-headed households, only 4.6 per cent and 4 per cent in Lofa and River Cess respectively have access to electricity as their main source of fuel for lighting. In Bong and River Cess, more than eight in 10 households rely on Chinese battery light as their main source of fuel for lighting in both male- and female-headed household. Households rely on unimproved sources like kerosine, candle, palm oil lamp (chako lantern), wood and other as their main sources of lighting. Across counties, with regard to unimproved sources of fuel for lighting, counties with the highest percentage above the national average among male- and female-headed households are Grand Kru (24.2 versus 27.3), Sinoe (19.3 versus 17.2), Maryland (12.8 versus 11.4), Grand Gedeh (12.4 versus 10).

**Figure 6: Percent of household's main source of fuel for lighting by sex of household head, type of place of residence and county**



Male-headed households
- Electricity
- Solar panel
- Chinese/battery light
- Unimproved sources

Female-headed households
- Electricity
- Solar panel
- Chinese/battery light
- Unimproved sources

| | Male Electricity | Male Solar | Male Chinese | Male Unimproved | Female Electricity | Female Solar | Female Chinese | Female Unimproved |
|---|---|---|---|---|---|---|---|---|
| Urban | 55.3 | | 37.8 | | 51.4 | | 42.0 | |
| Rural | 7.0 | 8.2 | 73.2 | 11.5 | 6.7 | 7.4 | 74.3 | 11.6 |
| Total | 32.2 | 6.0 | 54.8 | 7.0 | 33.4 | | 55.0 | 6.5 |
| Bomi | 24.8 | | 64.1 | 7.6 | 25.5 | | 64.4 | 7.1 |
| Bong | 6.7 | | 81.1 | 8.6 | 5.5 | | 83.2 | 7.9 |
| Grand Bassa | 7.1 | | 78.6 | 10.1 | 6.4 | | 80.9 | 8.5 |
| Grand Cape Mount | 18.9 | 12.0 | 60.9 | 8.2 | 19.3 | 11.4 | 61.3 | 8.0 |
| Grand Gedeh | 13.7 | 13.8 | 60.1 | 12.4 | 15.2 | 12.7 | 62.1 | 10.0 |
| Grand Kru | 7.4 | 21.0 | 47.3 | 24.2 | 5.8 | 19.0 | 47.9 | 27.3 |
| Gbarpolu | 6.1 | 7.8 | 74.8 | 11.3 | 5.5 | 7.3 | 75.3 | 11.8 |
| Lofa | 5.9 | 12.0 | 73.5 | 8.5 | | 11.0 | 75.2 | 9.2 |
| Margibi | 19.4 | 5.5 | 67.5 | 7.7 | 18.6 | | 70.8 | 7.1 |
| Maryland | 30.8 | 8.8 | 47.7 | 12.8 | 30.1 | 6.7 | 51.7 | 11.4 |
| Montserrado | 66.2 | | 29.9 | | 66.4 | | 30.0 | |
| Nimba | 11.3 | 8.4 | 72.4 | 7.9 | 11.5 | 6.3 | 74.6 | 7.6 |
| River Cess | | 9.6 | 81.7 | | | 8.2 | 82.6 | |
| River Gee | 7.2 | 24.6 | 60.6 | 7.5 | 5.7 | 21.0 | 66.7 | 6.7 |
| Sinoe | 15.2 | 12.7 | 52.8 | 19.3 | 12.6 | 11.5 | 58.7 | 17.2 |

## 2.7 Gender and household main source of fuel for cooking

Exposure to smoke from cooking with solid fuels such as charcoal and wood has potentially harmful health consequences. Studies suggest exposure to smoke from burning solid fuel predisposes the individual to respiratory tract infections (Amadu et al. 2023; Jestin-Guyon et al. 2023; Bede-Ojimadu, and Orisakwe 2020), and could potentially damage the eyes (Ravilla et al. 2016; West et al. 2013). In this section, results of the analysis on the household main source of cooking fuel are presented. In Liberia, the use of wood or charcoal as main source of fuel for cooking is widespread (Figure 7). As high as 52.2 per cent and 44.7 per cent of all households rely on charcoal and wood, respectively, as their source of cooking fuel. Only 1.0 per cent and 1.4 per cent of households, respectively, rely on cooking gas and electricity as their main source of cooking fuel. Among male-headed households, about half (50.3 per cent) rely on charcoal and 46.3 per cent rely on wood fuel as their main sources of cooking fuel. On the other hand, 55.5 per cent and 41.7 per cent of female-headed households, respectively, rely on charcoal and wood fuel as their main sources of cooking fuel. Likewise, the use of clean fuels for cooking is low in both male- and female-headed households. In male-headed households, 1.5 per cent and 1.0 per cent rely on electricity and gas as their main source of cooking fuel. Similarly, in female-headed households only 1.3 per cent and 0.9 per cent mainly use electricity and gas, respectively, for cooking. In rural areas, however, nearly all households use charcoal/wood as their main source of cooking fuel. In urban areas, four in five (83.3 per cent) households rely on charcoal as their main source of cooking fuel while in rural areas about 84.7 per cent of households rely on wood as their main source of fuel for cooking. There is no significant difference between male- and female-headed households in urban areas with regard to main source of fuel for cooking. Again, there is no significant differences in the choice of fuel in female- and male-headed household in rural areas. However, it is important to note that in urban areas, while 2.5 per cent of male-headed households rely on electricity and 1.2 per cent rely on cooking gas as their main source of cooking fuel, for female-headed

households, 1.9 per cent and 1.3 per cent rely on electricity and cooking gas, respectively, as their main source of cooking fuel.

Across county, the use of wood as main source of fuel for cooking is widespread, followed by charcoal except for Montserrado and Margibi where more households rely on charcoal than wood for cooking. For example, in Montserrado nearly nine in 10 (87.1 per cent) of households rely on mainly charcoal for cooking and only 7 per cent use wood. Across counties in Liberia, it can be observed that except for Lofa and Grand Cape Mount, where nearly equal proportions of male- and female-headed households rely on charcoal as their main source of cooking fuel, all other counties have more female-headed households who use charcoal as their main source of fuel for cooking than male-headed household. However, for both male- and female-headed households, the use of wood for cooking is prevalent except for Montserrado and Margibi counties, where charcoal is the main source of fuel used. In these counties, more female-headed households rely on charcoal than male-headed households. For instance, in Margibi and Montserrado counties, 57.0 per cent and 86.3 per cent of male-headed households, respectively, rely on charcoal as their main source of fuel for cooking. For female-headed households on the other hand, 63.3 per cent and 88.2 per cent, respectively, in Margibi and Montserrado counties rely on charcoal as their main source of fuel for cooking. With regard to the sex of household head and the use of electricity and gas as main sources of fuel for cooking, it can be observed that slightly higher proportion of the male-headed households than the female-headed household relies on these fuels. Among the male-headed households in Montserrado and Grand Cape Mount counties, the proportion of them who rely on electricity for cooking were 2.6 per cent and 2.5 per cent, respectively. Among the female-headed households, however, the proportion of those who rely on electricity as their main source of fuel for cooking in Montserrado and Grand Cape Mount counties were 2.4 per cent and 1.8 per cent, respectively. Generally, these figures are higher than the national average of 1.5 per cent and 1.3 per cent for male- and female-headed households, respectively.

**Figure 7: Household's main source of fuel for cooking by sex of household head, type of place of residence and county of residence**



## 2.8 Gender and household main source of drinking water

Access to high-quality drinking water has implications for quality of health for household members, especially children. Household members who have access to poor drinking water are more likely to suffer from cholera, and diarrhoea. Improved sources of drinking water include pipe or pump indoors, pipe or pump outdoors, public taps, closed well/protected, sachet water and bottled water. However, unimproved sources of drinking water include open wells, rivers, lakes, springs and creeks, water vendors and rainwater, and other sources of water. In Liberia, nearly seven in 10 (69.3 per cent) households have access to improved sources of drinking water (Figure 8). Concerning the gender of household head and access to improved drinking water sources, a slightly higher proportion of female-headed households in Liberia have access to improved drinking water sources than male-headed households. Comparatively, 71.8 per cent of the female-headed households in the country while that

of the male-headed households were 67.9 per cent. The gendered dimensions and access to improved sources of drinking water vary significantly across the different counties in the country. It can be observed that eight counties have access to improved water sources above the level obtained at the national level. However, some counties continue to face challenges with regard to access to improved water sources. For instance, in the River Cess only 37.3 per cent of the population of the county has access to improved sources of drinking water. This has implications for waterborne disease infection such as cholera, diarrhoea, typhoid, hepatitis and worm infections, especially among children. It is important to note that across counties, a higher proportion of female-headed households have access to improved sources of drinking water than male-headed households. Among male- and female-headed households, the county with the highest proportion of access to improved water sources is Maryland (female-headed = 84.4 per cent and male-headed = 79.1 per cent). However, in Grand Bassa and River Cess counties, less than half of the households have access to

improved sources of drinking water for male (42.2 per cent and 35.9 per cent respectively) and female (49.2 per cent and 41.5 per cent respectively) heads. The plausible explanation why female-headed households have access to improved sources of drinking water than male-headed households could be that the former may be more concerned about the health

and well-being of their family members and could therefore, put their investment priorities into improved water access. It is also possible that because females are usually responsible for fetching water for use in their households, especially in rural areas, they may be more likely to know which water sources are better or healthier for use.

**Figure 8: Household's main source of drinking water by sex of household head, type of place of residence and county**



| | Total | | Female-headed households | | Male-headed households | |
|---|---|---|---|---|---|---|
| | Improved | Unimproved | Improved | Unimproved | Improved | Unimproved |
| Total | 76.6 | 23.4 | 77.2 | 22.8 | 76.3 | 23.7 |
| Urban | 60.4 | 39.6 | 63.8 | 36.2 | 58.9 | 41.1 |
| Rural | 69.3 | 30.7 | 71.8 | 28.2 | 67.9 | 32.1 |
| Bomi | 77.7 | 22.3 | 79.4 | 20.6 | 76.5 | 23.5 |
| Bong | 67.3 | 32.7 | 71.3 | 28.7 | 65.2 | 34.8 |
| Grand Bassa | 44.2 | 55.8 | 49.2 | 50.8 | 42.2 | 57.8 |
| Grand Cape Mount | 76.3 | 23.7 | 77.9 | 22.1 | 75.6 | 24.4 |
| Grand Gedeh | 73.7 | 26.3 | 78.2 | 21.8 | 71.8 | 28.2 |
| Grand Kru | 52.7 | 47.3 | 55.7 | 44.3 | 50.8 | 49.2 |
| Gbarpolu | 59.2 | 40.8 | 63.1 | 36.9 | 57.6 | 42.4 |
| Lofa | 69 | 31 | 71.7 | 28.3 | 67.1 | 32.9 |
| Margibi | 73.4 | 26.6 | 74.4 | 25.6 | 72.9 | 27.1 |
| Maryland | 81.4 | 18.6 | 84.8 | 15.2 | 79.1 | 20.9 |
| Montserrado | 72.3 | 27.7 | 73 | 27 | 71.8 | 28.2 |
| Nimba | 74.7 | 25.3 | 75.4 | 24.6 | 74.3 | 25.7 |
| River Cess | 37.3 | 62.7 | 41.5 | 58.5 | 35.7 | 64.3 |
| River Gee | 71.5 | 28.5 | 77.3 | 22.7 | 67.7 | 32.4 |
| Sinoe | 55.3 | 44.7 | 58.9 | 41.1 | 58.6 | 46.4 |

## 2.9 Gender and toilet facility used by the household

Households reported on the type of toilet facilities available in the households. These types of toilet facilities were grouped into improved and unimproved toilet facilities. Improved facilities include flush toilet for household's use only, flush toilet shared with other households and covered pit latrine outside building. Unimproved facilities include open pit latrine, bush, beach/river side and others. In Liberia, 56.6 per cent of households use improved toilet facilities. More female-headed households than male-headed households have access to improved toilet facilities (Figure 9). Among male- and female-headed households, 55.1 per cent and 59.3 per cent,

respectively, rely on improved toilet facilities. These results are consistent with finding by other studies (Morakinyo et al 2015, Abebaw et al 2010 and Amoak et al 2023), pointing to the relationship between the sex of household head and improved sanitation services in Liberia. Female-headed households are more likely to invest more in preventive healthcare such as providing clean and safe toilet facilities than male-headed households. Additionally, both national and international agencies that seek to improve water, sanitation and hygiene (WASH) services and activities largely focus on women than men. Access to improved toilet facilities in households reduces the probability of underweight in children under 5 and improves child well-being in general (Otekunrin and Otekunrin, 2022).

**Figure 9: Per cent household headship by source of improved toilet facilities**
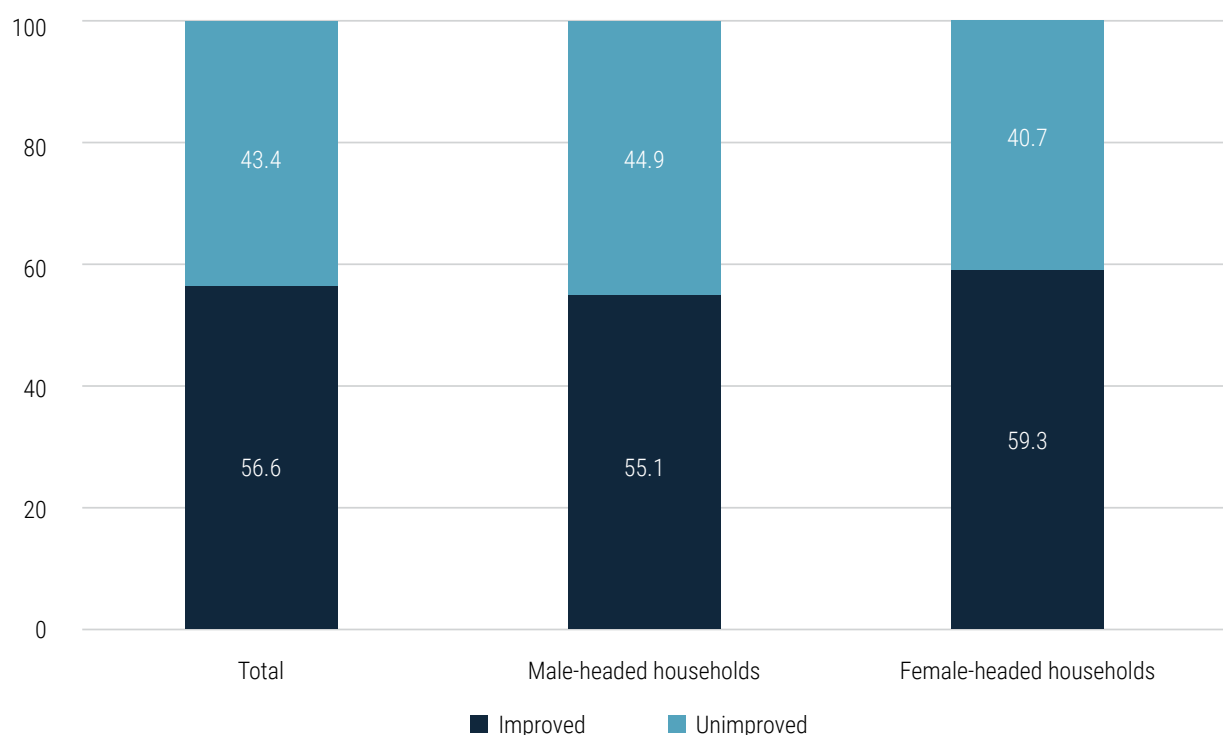


**2.10 Household headship and proximity to essential services**

In this section, data on household headship and proximity to essential services such as education, health and water sources for use within households are presented at the national, rural, urban and county levels. The results provide key government entities such as the Ministry of Health and Ministry of Education data on the time it takes for household members to get to these services across the country and the need to ensure easy and high-quality access to services for children, women and men. These results will also inform interventions to bridge the data gap by providing some data needed to promote the implementation of SDGs 3, 4, 5, 8, 10, 11 and 16. More importantly, the results will guide the ministries of health and education, the local government and other relevant stakeholders to allocate resources to ensure that key services are in close proximity within communities for easy access and use.

Timely access to essential services such as education, health facilities and water sources for use by households provides heads of household and essentially all household members with the opportunity to save time in their quest to access useful services such as primary education, health facilities and high-quality water. For example, when

water sources are closer to households, it will relieve school going children, especially girls, from spending too long hours in fetching water in the morning for use within households to get ready for school. Further, if community members have to travel long distances to access healthcare, then uptake of healthcare services may be limited. Once physical access to education, health and water is a barrier then the fundamental human rights as described in the Universal Declaration of Human Rights are infringed upon, thereby further widening inequality within the population. In this section, data segregated by sex of household head, type of place and county of residence are presented. It is important to provide gender differences in access to these services due to the fact that the sex of the head of household and their access to resources have implications for their use of these services against the backdrop of accessibility barriers.

**2.10.1 Gender and distance from the household to the nearest health facility**

Access to health facilities promotes utilization of health services and reduces delays in accessing healthcare. This has the potential to reduce death rates and other poor health outcomes while ensuring the attainment of Goal 3 of the SDGs, which is the

promotion of good health and well-being of the population. Particularly for pregnant women and children, easy access to health facilities will ensure that they initiate antenatal care services early, have assisted deliveries by skilled providers, reduce or eliminate the three delays of healthcare access, and ensure increased uptake of postnatal and family planning services. All these are geared towards reducing maternal mortality and ending preventable deaths of newborns and children under 5 years of age.

In addition, easy access to health facilities will ensure that AIDS, tuberculosis, malaria and neglected tropical diseases, hepatitis, waterborne diseases and other communicable diseases are swiftly referred for relevant attention and treatment. This will help achieve Target 3.3 of SDG 3 of ending these epidemics. In addition, in order to reduce by one third premature mortality from non-communicable diseases (NCDs) through prevention and treatment and promote mental health and well-being by 2030 (SDG3.4), health facilities must be in close proximity to communities. Routine healthcare check-ups and preventive healthcare strategies could be employed and adopted within communities to reduce the risk of NCDs.

Figure 10 shows the percentage distribution of the distance that households are to nearest health facility by sex of household and locality in Liberia based on the 2022 LPHC data. According to the results, nearly two in five individuals in Liberia indicated that the distance from their household to the nearest health facility was 20 minutes or less. While 38.6 per cent of male-headed households indicated that the distance from their household to the nearest health facility was less than 20 minutes, about 41.1 per cent of female-headed households reported same. Significant rural-urban differences were observed. For the total population, 51.1 per cent of urban households reported that the distance from their households to the nearest health facility was less than 20 minutes compared to just about a quarter of rural households. Similar trends are observed for male- and female-headed households in rural and urban areas. Gender dynamics as well as geographical characteristics defined by county and rural-urban residence in Liberia has implications for proximity to and access to healthcare facilities. The rural areas and male-headed households in Liberia exhibit the slowest progress in meeting the goal of achieving universal access to healthcare as a result of the length of time they spend to access healthcare facilities. This has deleterious health implications particularly during emergency situations. There is the need for the Government to further focus its attention to structurally address this unique challenge by distributing resources to increase infrastructural development in these areas.

**Figure 10: Distance from household to the nearest health facility by sex of household head and type of place of residence**
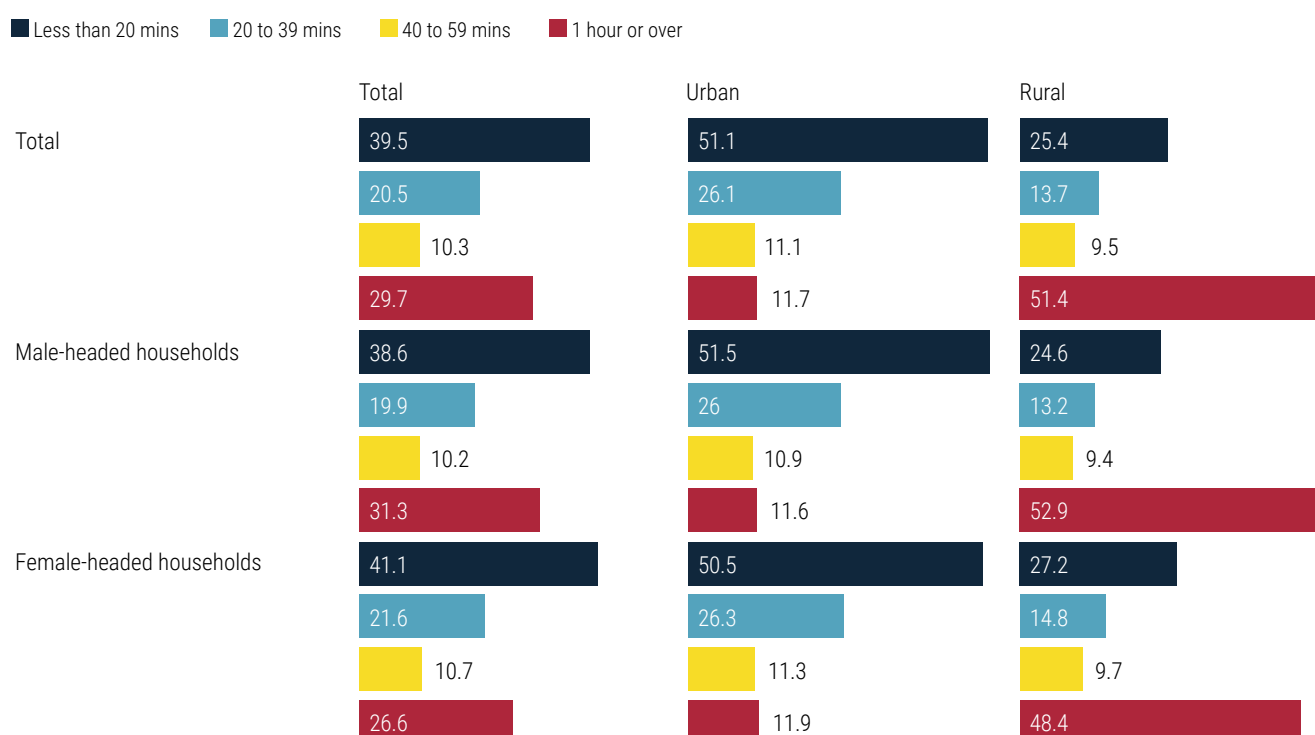
### 2.10.2 Gender and distance from the household to the nearest primary school

SDG 4 emphasizes the needed to ensure access to high-quality education for both boys and girls by 2030. Specifically, Target **4.1 highlights the need to ensure** that all girls and boys complete free, equitable and high-quality primary and secondary education leading to relevant outcomes by 2030. In order for boys and girls to move on from primary school to secondary level education, universal access to primary level education has to be prioritized. Unfortunately, proximity to primary school is a barrier to many children. When schools are not located in close proximity to one's community, the physical, safety and financial burden of transporting children may be a hindrance to access to primary school education.

Generally, more than half (54.2 per cent) of all households in Liberia indicated that the distance from the household to the nearest primary school is less than 20 minutes (Figure 11). However, in rural areas about one in five (47.7 per cent) household heads reported that it takes an hour or longer to get to the nearest primary school compared to only 4.5 per cent of their urban counterparts. While 17.2 per cent of female-headed households in rural areas indicated that distance from the households to the nearest primary school was one hour or more, about 22 per cent of male-headed households reported the same. These results suggest that the Government must continue to prioritize Free Compulsory Basic Education especially in rural areas and for both males and females by bringing schools closer to the beneficiaries.

**Figure 11: Distance from the household to the nearest primary school by sex of household head and type of place of residence**



Legend: Less than 20 mins | 20 to 39 mins | 40 to 59 mins | 1 hour or over

| | Total | Urban | Rural |
|---|---|---|---|
| **Total** | | | |
| Less than 20 mins | 54.2 | 59.5 | 47.7 |
| 20 to 39 mins | 24.7 | 27.1 | 21.8 |
| 40 to 59 mins | 9.4 | 8.9 | 10 |
| 1 hour or over | 11.7 | 4.5 | 20.5 |
| **Male-headed households** | | | |
| Less than 20 mins | 53.6 | 59.9 | 46.7 |
| 20 to 39 mins | 24.2 | 26.9 | 21.2 |
| 40 to 59 mins | 9.4 | 8.7 | 10.1 |
| 1 hour or over | 12.8 | 4.5 | 22 |
| **Female-headed households** | | | |
| Less than 20 mins | 55.2 | 58.9 | 49.8 |
| 20 to 39 mins | 25.7 | 27.4 | 23.2 |
| 40 to 59 mins | 9.4 | 9.1 | 9.8 |
| 1 hour or over | 9.7 | 4.6 | 17.2 |
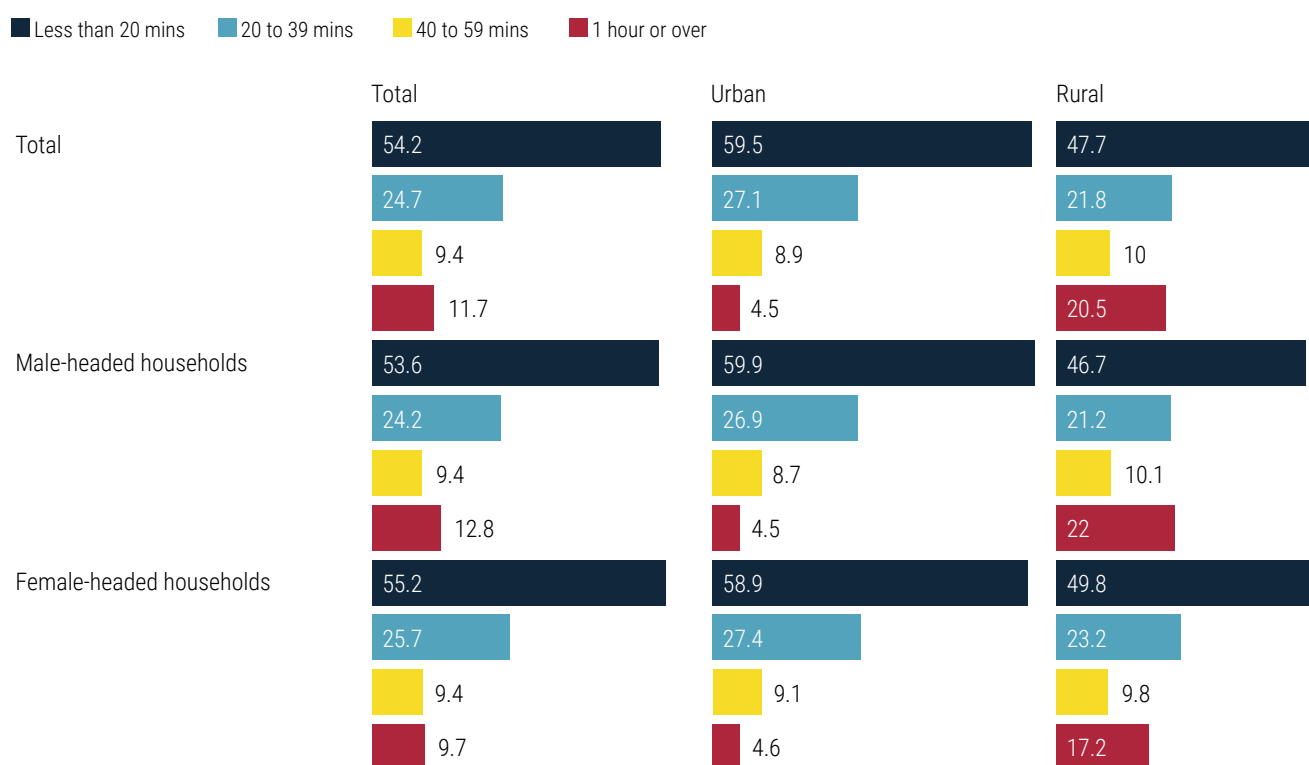
### 2.10.3 Gender and distance from the household to the nearest water source

Access to clean water is prioritized in SDG 6. This is because access to water is a fundamental human right and a necessary resource for human survival. However, globally, rapid population growth and urbanization means that demand for water keeps rising. While the proportion of the world's population

with access to safe drinking water increased from 69 per cent in 2015 to 73 per cent in 2022, it is important for governments to invest further in expanding access to safe drinking water for all (SDGs Report 2023). This is because while water is essential to health, it is further associated with food security, peace and human rights, ecosystems, education and overall poverty reduction. Thus, it is important that access to clean water for all remains a priority for

the Government and efforts must be made to ensure sustainable use of water resources. This means that distance to clean water and other water resources must be reduced to ensure that all persons have easy access to water.

In Liberia, about 13.7 per cent of households reported that they have water in their households, seven in 10 indicated that it takes them less than 20 minutes to get to the nearest water source, and one in 10 (70.8 per cent) households reported that it takes 20 to 39 minutes to get to the nearest water source (Figure 12). The time it takes to reach the nearest

water source is similar for both male- and female-headed households. However, significant rural-urban differences were observed. At the national level in urban areas 18.5 per cent of households indicated that they have water in their household compared to only 7.9 per cent in rural areas. Moreover, while in urban areas 68.4 per cent of households reported that it takes them less than 20 minutes to get to the nearest source of drinking water, in rural areas 73.6 per cent of households reported that it takes them less than 20 minutes to get to the nearest source of drinking water.

**Figure 12: Per cent of households by distance to the nearest water source, sex of household head and type of place of residence**

- ■ Water at home
- ■ Less than 20 mins
- ■ 20 to 39 mins
- ■ 40 to 59 mins
- ■ 1 hour or over



| | Total | Urban | Rural |
|---|---|---|---|
| **Total** | 13.7 / 70.8 / 10.4 / 2.9 / 2.2 | 18.5 / 68.4 / 9 / 2.6 / 1.5 | 7.9 / 73.6 / 12.2 / 3.3 / 3.1 |
| **Male-headed households** | 13.8 / 70.5 / 10.5 / 2.9 / 2.4 | 19.2 / 67.9 / 8.8 / 2.5 / 1.5 | 8 / 73.2 / 12.2 / 3.3 / 3.3 |
| **Female-headed households** | 13.4 / 71.3 / 10.4 / 2.9 / 2 | 17.4 / 69.2 / 9.2 / 2.6 / 1.5 | 7.5 / 74.4 / 12 / 3.3 / 2.7 |
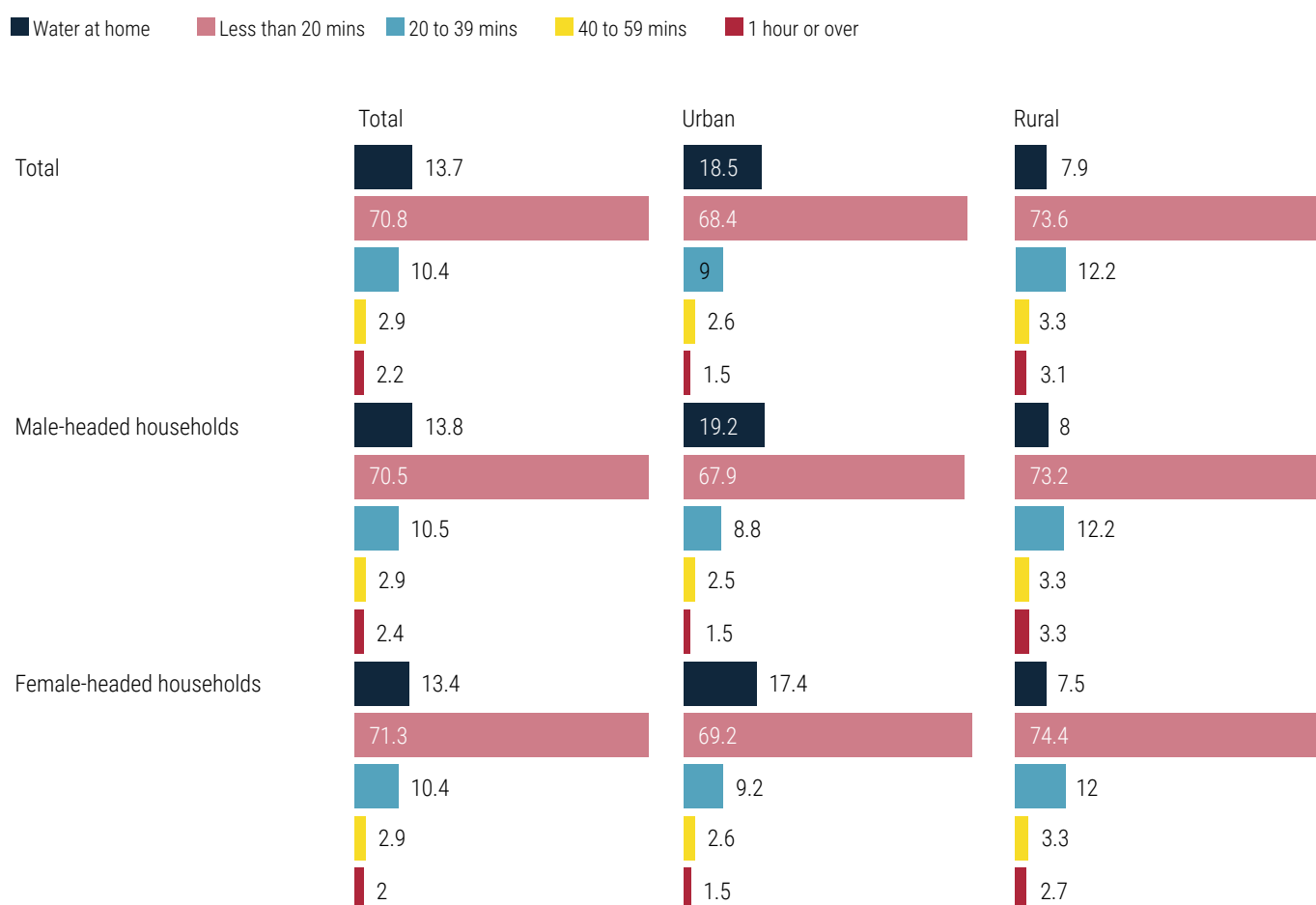
Again, 1.5 per cent of households in urban areas indicated that it takes them an hour or more to get to the nearest source of drinking water but in rural areas this was reported by 3.1 per cent of households. The time it takes to reach the nearest water source is similar for both male- and female-headed households in urban and rural areas. For instance, in urban areas, 67.9 per cent of male heads indicated that it takes

20 minutes or less to get to the nearest source of drinking water compared to 69.2 per cent of female heads who reported same. In rural areas, however, 73.2 per cent of male-headed households indicated that they accessed drinking water in less than 20 minutes while 74.4 per cent of female-headed households did so.

# 3. GENDER, MARRIAGE, FERTILITY, MORTALITY AND MIGRATION

## 3.1 Gender, marriage and fertility

### 3.1.1 Gender and marriage patterns

With regard to marital status, persons 12 years and above were asked to indicate their current marital status. The results in Figure 13 show that six in 10 (61.5 per cent) of the population had never been married compared to 32.3 per cent who were currently married. A slightly higher proportion of males (63.4 per cent) than females (60.0 per cent) have never been married. However, nearly the same proportion of males (30.6 per cent) and females (30.0 per cent) were currently married. There were more widowed (3.0 per cent) females than there were males (0.7 per cent). Further, more females reported being in consensual unions (3.0 per cent) than males

(2.3 per cent). Also, while among males, 1.0 per cent were out of union due to separation or divorce, for females about 1.3 per cent were out of union due to separation or divorce. It is important to highlight some notable rural-urban differences in marital status among males and females. In urban areas, 68.9 per cent of males had never been married compared 67.5 per cent of females. However, in rural areas, 55.9 per cent of males had never been married compared to 50.4 per cent of females. A higher proportion of the population was married in the rural (36.3 per cent for males and 37.6 per cent for females) areas than the urban (25.7 per cent for males and 24.4 per cent for females). Further, in urban areas and among the male population, 26.4 per cent were currently married and for the female population 25.8 per cent were married. In both rural and urban areas, a relatively higher proportion of females than males were also widowed.

**Figure 13: Marital status and sex**
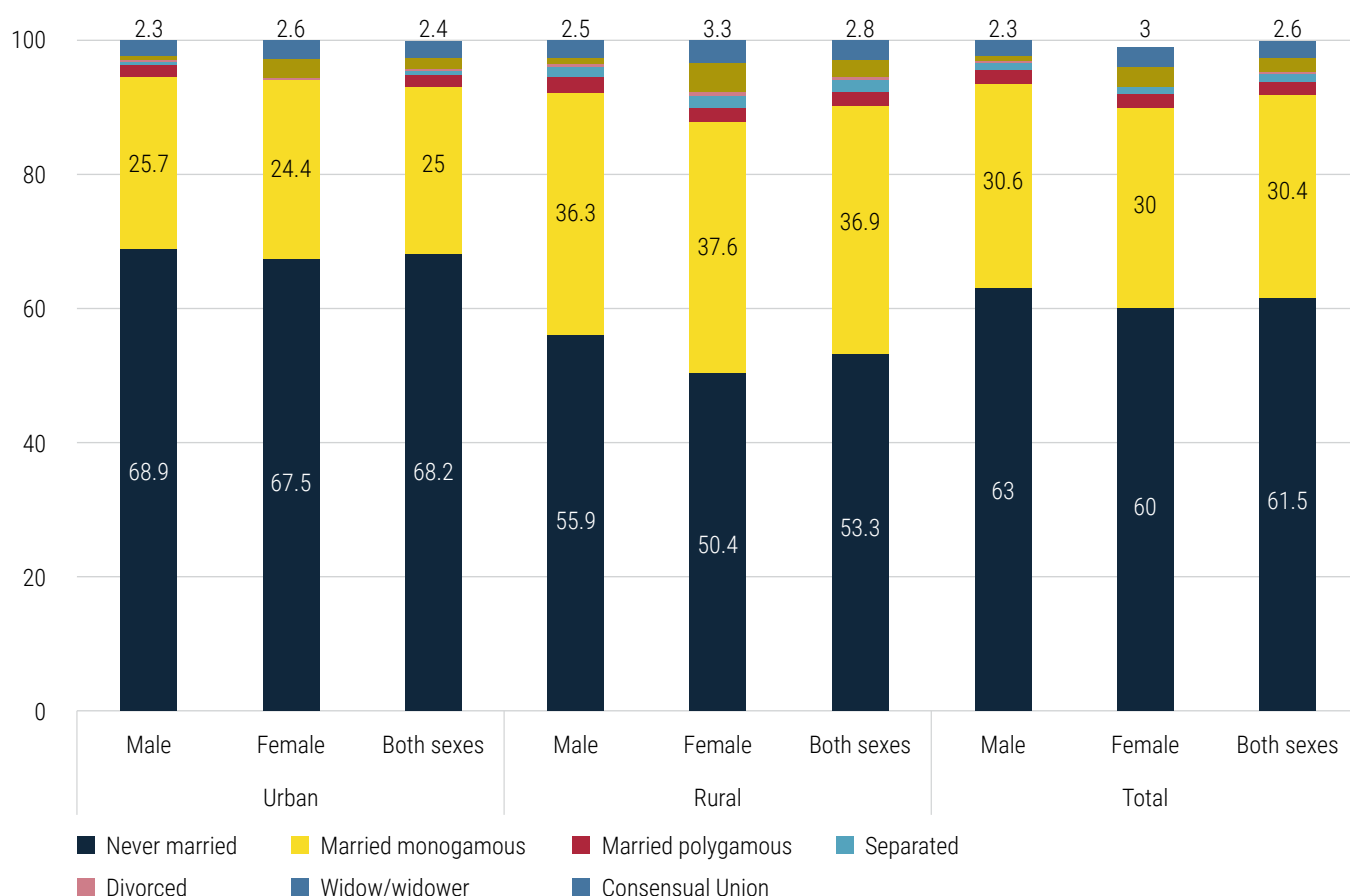
### 3.1.2 Levels and trends in singulate mean age at marriage

The singulate mean age at marriage (SMAM) for both sexes increased from 21.6 years in 1962 to 28.5 in 2022 (Figure 14). This suggests that in 1962 males and females who reached age 15 years got married after 6.5 years and in 2022 they got married after 13.5 years. Further, the SMAM for a male was 26.6 years in 1962 compared to 18.1 years for females. Thus, as males got married 11.6 years after age 15 years, females got married 3.1 years after age 15 years. It is important to note that although there is a significant difference in the SMAM between males and females, much improvement appears to have been made with regard to age at first marriage in Liberia. In 2022, the SMAM was 27 years for females

and 31 years among males, representing a difference of four years between the sexes. Therefore, although males get married generally 16 years later after they turn 15 years, females get married 12 years after their fifteenth birthday. The increases in SMAM can be attributed to nationwide efforts to keep both males and females in school. This potentially reduces their chances of early marriage and adolescent pregnancies. It is important for the Government of Liberia to continue to improve access to high-quality and affordable education countrywide to ensure that girls and boys remain in school. Likewise, efforts to end child and early marriage must be intensified to provide females of school going age alternative options such as access to formal or technical/vocational education.

### Figure 14: Trends in singulate mean age at marriage by sex
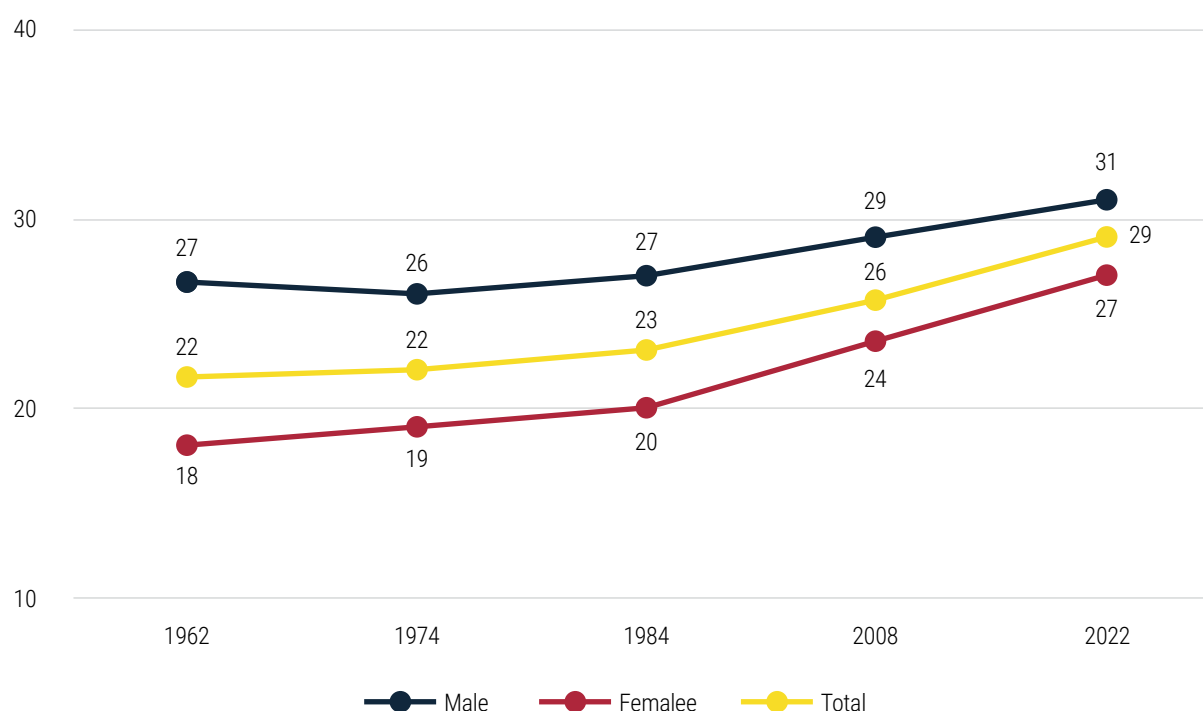


### 3.1.3 Child marriage

Articles 16.1 and 16.2 of the Universal Declaration of Human Rights emphasize the right to marry for males and females of *full age* and that marriage shall be entered into only with the free and full consent of the intending spouses. The right of the child in this regard is infringed upon if the child who cannot make informed decisions is coerced to live with a sexual partner. Early, forced or child marriages have poor public health, social and economic consequences. This is due to the fact that children who marry early may be less likely to stay in school once they start

childbearing and are more likely to have more children than their counterparts who marry late. These births contribute significantly to maternal births in a society. For example, in Liberia, while about 4.0 per cent of those 15 years have begun childbearing, this rises to 55.0 per cent among those of age 19 years (LISGIS et al., 2021). Past research shows that females who marry early are at a higher risk of maternal-related deaths and may be less likely to use family planning, antenatal and postnatal services or have skilled birth attendants and child immunization services (Ahinkorah et al., 2022). Further, due to the fact that child marriage may force a girl child to drop out of

school, her chances of gaining employable skills are reduced and this could widen the poverty gap between girls and boys. In addition to the spousal age difference and poor access to paid employment, girls who marry early may be more likely to depend heavily on their spouses and this could increase their risk of experiencing domestic violence. Although Target 5.3 of the SDG 5 specifically highlights eliminating all harmful practices such as child, early and forced marriage and female genital mutilation, unless child marriage is ended, governments will be less likely to achieve at least nine of the 17 SDGs. This is due to the fact that child marriage essentially affects gender equality, poverty, food security, health, education, economic growth, climate action, access to education, peace and justice and overall quality of life. The Children's Act, 2011 of Liberia also prohibits false betrothals, dowry transactions and stipulates age 18 as the minimum age for marriage. However, child marriage is a major challenge in Liberia.

In Liberia, 2.5 per cent and 0.2 per cent of children 12-17 years are in monogamous and polygamous unions, respectively. Further, 0.2 per cent are separated, 0.1 per cent are widowed and 0.9 per cent are in consensual unions. It can be observed that a relatively higher proportion of females than males are in marital unions. For instance, among females 12-17 years, while 3.6 per cent and 0.2 per cent are currently in monogamous and polygamous marriages, respectively, among males, 1.3 per cent and 0.1 per cent are respectively in such unions. Also, while 0.1 per cent of males reported that they are separated, the proportion for females is 0.2 per cent. However, 0.7 per cent of males and 1.2 per cent of females 12-17 years are in consensual unions. Among males while no one reported to be widowed, for females, 0.1 per cent said they are widowed.

## Table 3: Marital status of children 12-17 years by sex

| Marital status | | 12-14 Years | Per cent | 15-17 Years | Per cent | Total |
|---|---|---|---|---|---|---|
| Male | Never married | 196,661 | 98.3 | 184,838 | 97.7 | 381,499 |
| | Married monogamous | 1,839 | 0.9 | 2,473 | 1.3 | 4,312 |
| | Married polygamous | 192 | 0.1 | 211 | 0.1 | 403 |
| | Separated | 260 | 0.1 | 273 | 0.1 | 533 |
| | Divorced | 95 | 0.0 | 74 | 0.0 | 169 |
| | Widow/ widower | 83 | 0.0 | 84 | 0.0 | 167 |
| | Consensual Union | 942 | 0.5 | 1,235 | 0.7 | 2,177 |
| | Total | 200,072 | 100.0 | 189,188 | 100.0 | 389,260 |
| Female | Never married | 197,010 | 98.1 | 180,114 | 94.5 | 377,124 |
| | Married monogamous | 2,030 | 1.0 | 6,841 | 3.6 | 8,871 |
| | Married polygamous | 162 | 0.1 | 450 | 0.2 | 612 |
| | Separated | 242 | 0.1 | 363 | 0.2 | 605 |
| | Divorced | 98 | 0.0 | 91 | 0.0 | 189 |
| | Widow/ widower | 205 | 0.1 | 321 | 0.2 | 526 |
| | Consensual Union | 1,048 | 0.5 | 2,372 | 1.2 | 3,420 |
| | Total | 200,795 | 100.0 | 190,552 | 100.0 | 391,347 |

| Marital status | | 12-14 Years | Per cent | 15-17 Years | Per cent | Total |
|---|---|---|---|---|---|---|
| Total | Never married | 393,671 | 98.2 | 364,952 | 96.1 | 758,623 |
| | Married monogamous | 3,869 | 1.0 | 9,314 | 2.5 | 13,183 |
| | Married polygamous | 354 | 0.1 | 661 | 0.2 | 1,015 |
| | Separated | 502 | 0.1 | 636 | 0.2 | 1,138 |
| | Divorced | 193 | 0.0 | 165 | 0.0 | 358 |
| | Widow/ widower | 288 | 0.1 | 405 | 0.1 | 693 |
| | Consensual Union | 1,990 | 0.5 | 3,607 | 0.9 | 5,597 |
| | Total | 400,867 | 100.0 | 379,740 | 100.0 | 780,607 |

### 3.1.4 Adolescent childbearing

Adolescent childbearing is a major health concern globally. This is because adolescent births force young girls to play adult roles that their bodies are not psychologically or physically prepared to do. Adolescents who have children are less likely to utilize maternal healthcare services and this has significant consequences on their health and the health of their children. Further, adolescent births could contribute to school dropout rates among girls. In Liberia, adolescent pregnancy fell marginally from 31.3 per cent in 2013 to 30 per cent in 2019/20 and the adolescent birth rate fell from 149.3 births per 1,000 women in 2013 to 132 births per 1,000 women in 2020 (LISGIS et al., 2021). The Government of Liberia, however, is making significant progress to reduce adolescent births. For instance, the FP2030 Commitment was launched in July 2023, with the aim of strengthening the delivery of high-quality rights-based adolescent and youth-friendly family planning services targeting various age groups and demographics of adolescents and young people in order to reduce unwanted pregnancy by 10 per cent among adolescent girls by the end of 2030. According to the 2022 LPHC, about 10,108 births were recorded for adolescents aged 12-19 years, in the 12 months preceding the census (Table 4). The mean age at birth for those aged 12-19 years was 13 years. Further, while 1.93 per cent have had a live birth, about 8.4 per cent have begun childbearing. The number of children born to adolescents 12-19 years increases with age. There are many factors that increase the risk of adolescent childbearing. These include child marriage, low levels of education, low economic opportunity, power imbalance between spouses, weak power sexual relations and gender norms (Population Council, 2009). It is important that more efforts are targeted at ensuring that child marriages and transactional sexual relations are eliminated while improvement in education among individuals should be encouraged to further reduce adolescent childbearing in Liberia.

### Table 4: Pattern of adolescent childbearing in Liberia, 2022

| Age | Number of women | Live Births in the last 12 months | Average age at first birth | Per cent who have had a live birth in the last 12 months | Per cent who have begun childbearing | Per cent who have not |
|---|---|---|---|---|---|---|
| 12 | 71,014 | 12 | 9 | 0.02 | 1.00 | 99.0 |
| 13 | 63,633 | 37 | 10 | 0.06 | 1.27 | 98.7 |
| 14 | 66,148 | 115 | 12 | 0.17 | 1.77 | 98.2 |
| 15 | 61,454 | 370 | 13 | 0.60 | 2.77 | 97.2 |
| 16 | 60,911 | 986 | 14 | 1.62 | 5.49 | 94.5 |

| Age | Number of women | Live Births in the last 12 months | Average age at first birth | Per cent who have had a live birth in the last 12 months | Per cent who have begun childbearing | Per cent who have not |
|---|---|---|---|---|---|---|
| 17 | 68,187 | 2049 | 15 | 3.00 | 10.23 | 89.8 |
| 18 | 63,601 | 2,716 | 16 | 4.27 | 17.50 | 82.5 |
| 19 | 68,691 | 3,823 | 16 | 5.57 | 26.31 | 73.7 |
| 12 - 19 | 523,639 | 10,108 | 13 | 1.93 | 8.39 | 91.6 |

## 3.2 Gender and mortality

Past research has shown that there are significant variations in morbidity and mortality among males and females (Crimmins et al., 2019; Obermeyer et al., 2010)driven by TB/HIV, as well as non-communicable diseases. Few health systems are organized to meet the needs of chronically ill patients, and patients' perspectives on the difficulties of accessing care need to be better understood, particularly in poor resourced settings, to achieve this end. This paper describes the experience of poor households attempting to access chronic care in a rural area of South Africa. Methods. A household survey (n = 1446 individuals. Generally, male mortality is found to be higher than females. Across populations globally, females are observed to live longer than males. A number of theories have linked these differences in mortality among males and females to biological, psychological, and social factors (Jacobsen et al., 2008). Females are found to have an increased absence of morbidity and lower mortality rates as compared to males (Avdic et al., 2019). Also, females tend to engage in more proactive and preventive behaviour than males, which explains the male-female health-survival paradox.

### 3.2.1 Neonatal, infant, child mortality, under-5 mortality rates

### 3.2.1.1 Neonatal mortality

In Liberia, neonatal mortality is high (see Figure 15); about 35.6 neonatal deaths per 1,000 live births were recorded in 2022, a slight decline since 2019 (37 deaths per 1,000 live births). This is over double the global average of 17 deaths per 1,000 live births in 2022 (United Nations Inter-Agency Group for Child Mortality Estimation (United Nations IGME), 2024). Female neonatal deaths (30.3 deaths per 1,000 live births) are lower than male neonatal deaths (40.8 deaths per 1,000 live births). In order to achieve Target 3.2 of Goal 3 of the SDGs of ending preventable deaths of newborns, with all countries aiming to reduce neonatal mortality to at least 12 per 1,000 live births more interventions must be put in place to reduce neonatal deaths. Further, specific interventions must be introduced to reduce the gender mortality gap associated with deaths of babies in their first month of life.

**Figure 15: Trends in neonatal mortality by sex, 2019 to 2022, Liberia**
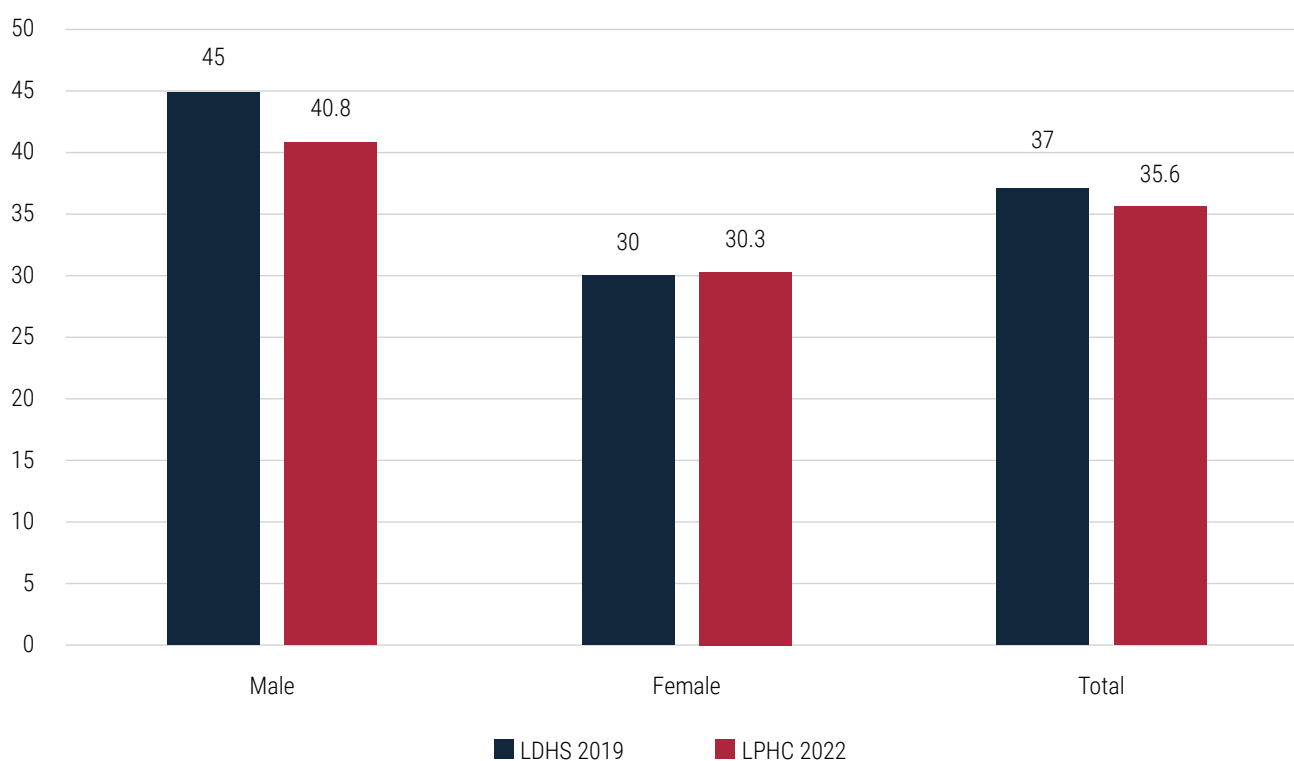


### 3.2.1.2 Infant mortality rate

Infant mortality rate is the number of infant deaths per 1,000 live births. This rate is an important marker of the overall health of a country and it provides vital information about maternal and infant health in a country. In Liberia, infant mortality is estimated at 63.7 deaths per 1,000 live births (Figure 16) with male and female infant deaths estimated at 52.8 and 74.8 deaths per 1,000 live births, respectively. Male infant mortality rates have, however, been reducing since 1986 through to 2022. In 1986, male infant mortality rate was 160 deaths per 1,000 live births and this reduced to 81 deaths per 1,000 live births in 2008.

Female infant mortality although reduced from as high as 128 deaths per 1,000 live births in 1986 to 72 deaths per 1,000 live births in 2008 and 58 deaths per 1,000 live births in 2019, it rises sharply to 74.8 deaths per 1,000 live births in 2022. The results show that overtime while there have been more male infant deaths than female deaths in the past, in 2022, female infant deaths overtake male deaths. It would be expedient for some mortality audit to be conducted to understand why some many more female infant deaths were recorded in 2022. Although some significant progress has been made, more health and education intervention must be put in place in order to further reduce infant mortality in Liberia.

### Figure 16: Trends in infant mortality by sex, 1986 to 2022, Liberia



Legend: Infant mortality Male · Infant mortality Female · Infant mortality Total
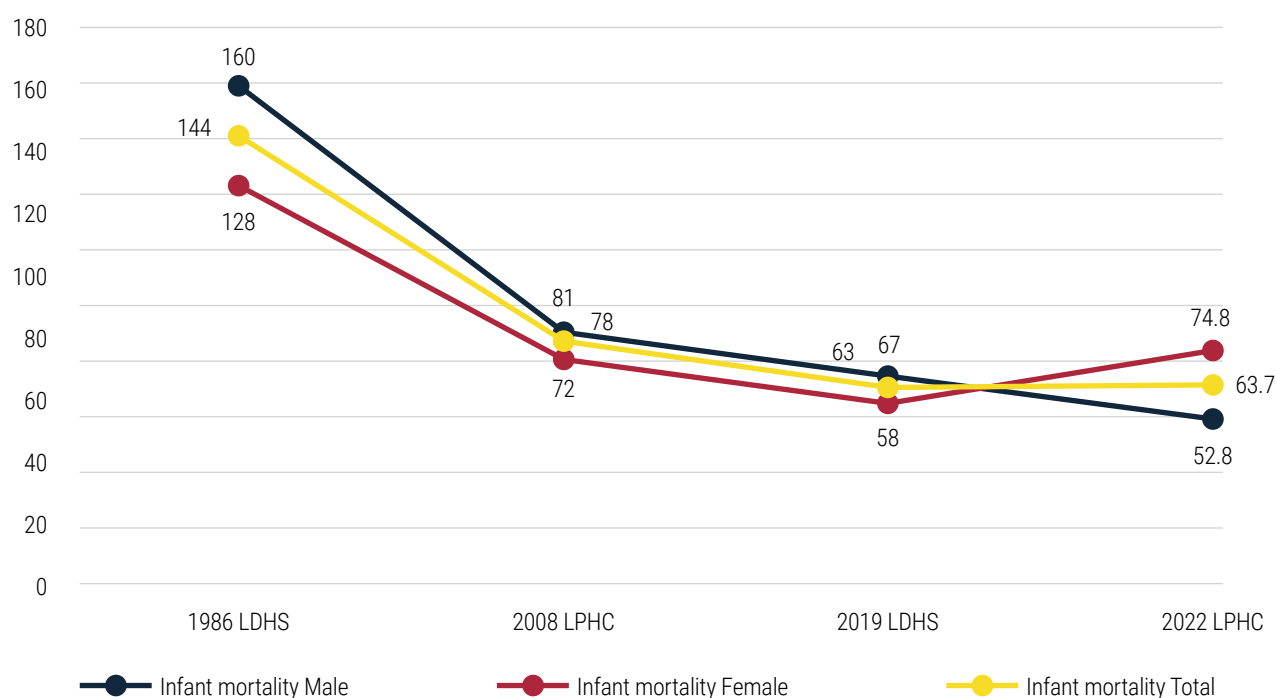
#### 3.2.1.3 Child mortality rate

Significant efforts have been made over the past three decades to reduce the child mortality gender gap. According to the 1986 LDHS, there were 88 male child deaths per 1,000 live births compared to 90 female child deaths per 1,000 live births (Figure 17). By 2022, however, the gender gap for child mortality has been closing. Male child mortality is 29.2 deaths per 1,000 live births compared and female child mortality of 35.0 deaths per 1,000 live births. This shows that Liberia is making significant progress towards ensuring that every child between the first and the fifth year of life survives however, there are more female child deaths than male child deaths.

**Figure 17: Trends in child mortality by sex, 1986 to 2022, Liberia**



Legend: ■ Child mortality rate Male  ■ Child mortality rate Female  ■ Child mortality rate Total
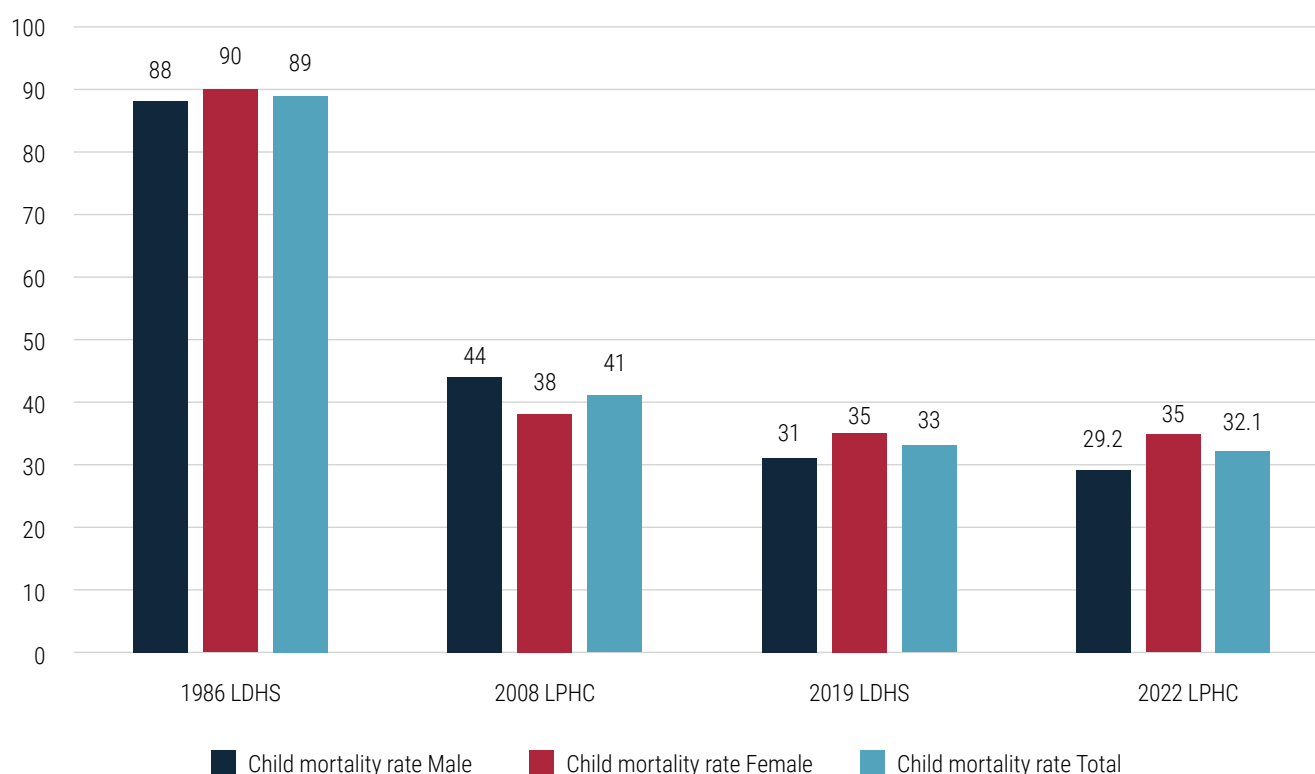
### 3.2.1.4 Under-5 mortality rates

The trend analysis shows that under-5 mortalities have improved generally since 1986 and is decreasing overtime however, some gender disparity remains alarming (Figure 18). Compared to the global and SSA averages of 37 and 71 deaths per 1,000 live births respectively, the results show that in 2022, the under-5 mortality rate was estimated at 92.6 deaths per 1,000 live births in Liberia. In 1986, while there were 234 male under-5 deaths per 1,000 live births compared to 206 female under-5 deaths, in 2022, there were 81.8 male under-5 deaths compared to 103.7 female under-5 deaths. The results show that the decline in female under-5 deaths have not been uniform in recent years. To achieve the Target 3.2 of the SDGs of reducing under-5 mortality to at least 25 per 1,000 live births by 2030, all stakeholders must continue to work towards sustaining the progress made. Specifically, the root causes of excess under-5 deaths among females must be investigated and addressed.

**Figure 18: Trends in under-5 mortality by sex, 1986 to 2022, Liberia**



Legend:
- Under five mortality - Total
- Under five mortality - Female
- Under five mortality - Male

Data values:
- 2022 LPHC: 92.6 (Total), 103.7 (Female), 81.8 (Male)
- 2019 LDHS: 93 (Total), 91 (Female), 96 (Male)
- 2008 LPHC: 112 (Total), 102 (Female), 113 (Male)
- 1986 LDHS: 220 (Total), 206 (Female), 234 (Male)
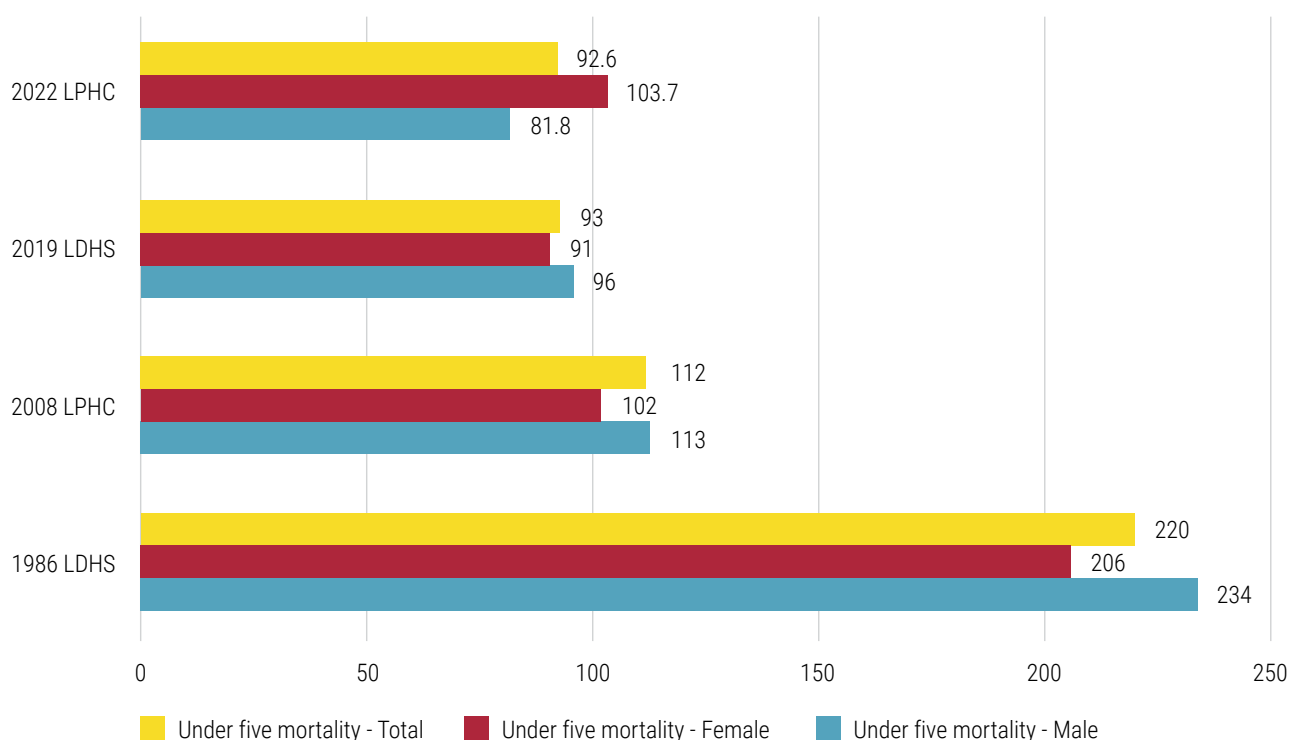
### 3.2.1.5 Mortality distribution among children 0-5 years

This section describes deaths among children (0-5 years). Of the total number of 2,996,147 births to women aged 12 - 49 years, 194,028 died (109,583 males and 84,445 females). This suggests that nearly 25,141 more male children died compared to female children (Table 5). The table further shows that as the age of the mother increases, the number of both male and female deaths increases except for those 45-49 years.

**Table 5: Distribution of child mortality by sex and age of mother**

| Age group | No of women | Children Ever Born | | | Children Dead | | |
|---|---|---|---|---|---|---|---|
| | | Male | Female | Total | Male | Female | Total |
| 12-14 | 200,795 | 5,609 | 5,283 | 10,892 | 443 | 356 | 799 |
| 15-19 | 322,844 | 41,250 | 36,773 | 78,023 | 2,593 | 1,979 | 4,572 |
| 20-24 | 305,640 | 144,699 | 131,682 | 276,381 | 7,930 | 6,226 | 14,156 |
| 25-29 | 227,432 | 212,308 | 195,754 | 408,062 | 11,321 | 9,019 | 20,340 |
| 30-34 | 218,837 | 301,700 | 279,176 | 580,876 | 17,492 | 13,466 | 30,958 |
| 35-39 | 167,434 | 315,003 | 292,989 | 607,992 | 20,630 | 16,090 | 36,720 |
| 40-44 | 140,960 | 315,911 | 291,191 | 607,102 | 26,078 | 19,821 | 45,899 |
| 45-49 | 85,783 | 221,355 | 205,464 | 426,819 | 23,096 | 17,488 | 40,584 |
| Total | 1,669,725 | 1,557,835 | 1,438,312 | 2,996,147 | 109,583 | 84,445 | 194,028 |

### 3.2.2 Crude death rates

The number of deaths in households in the last 12 months prior to the census was used to estimate the crude death rate for Liberia from the 2022 LPHC. The crude death rate for males was 15 deaths per 1,000 population compared to 22 deaths per 1,000 population in 2008 as indicated in Figure 19. For females, while the crude death rate in 2008 was 20 deaths, in 2022 it was 12 deaths per 1,000 population. As expected, there are generally more male deaths than female deaths. The mortality differentials among males and females have already been reported

elsewhere in earlier studies (Awini et al., 2014; Obermeyer et al., 2010; Oti et al., 2014)monitoring, and evaluating health interventions. Objective: To estimate the mortality rate and determine causes of death among adults (aged 15 years and older. Generally, females tend to live longer than their male counterparts, thereby explaining the higher mortality for males (Austad, 2006; Lego et al., 2019). Poor health seeking behaviours, risky lifestyle factors, participation in civil strife and demonstration, and involvement in hazardous occupations are some factors that tend to contribute to increasing the risk of mortality for males.

**Figure 19: Trends in crude death rates by sex, 2008 and 2022, Liberia**
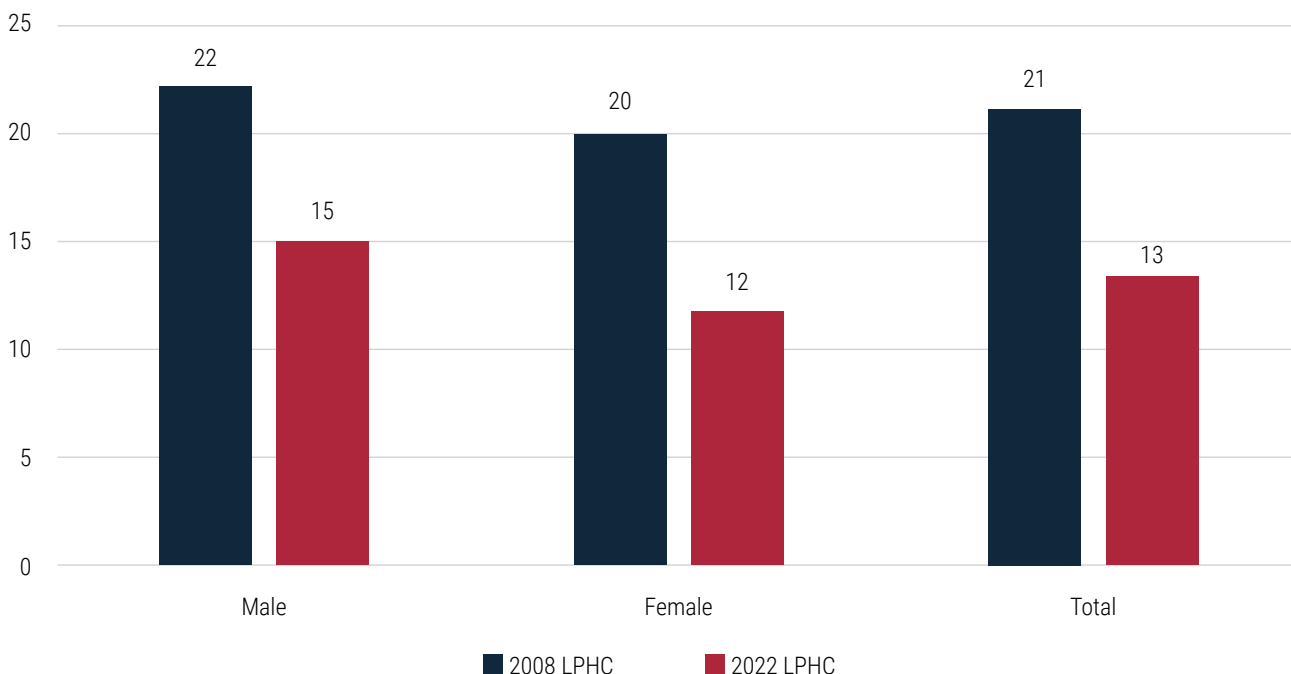


### 3.2.3 Age-specific death rates

The household deaths in the last one-year before the census was used again to estimate age-specific death rates (ASDRs). These rates are obtained by dividing the number of deaths by age to the total

population of that particular age. It is the ratio of deaths in an age group divided by the mid-year population of that age group multiplied by 1,000. Figure 20 shows that below age 5 years female deaths are higher than that of male deaths.

**Figure 20: Pattern of ASDRs by sex, 2022**
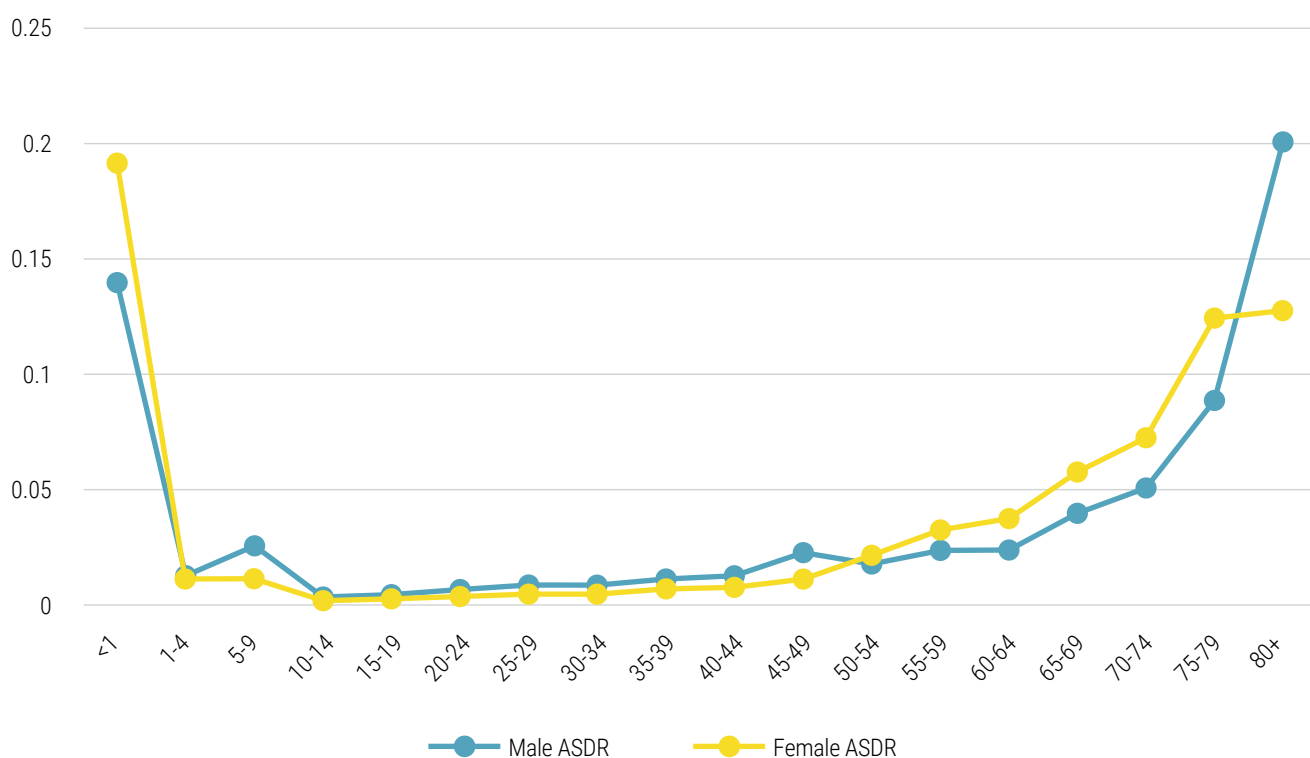


This contrast many cases where deaths for males are usually higher below age 5 than for females. Male deaths are higher than female deaths specifically from age 5 to about age 54 years. This shows that male mortality in Liberia is generally higher than for females. However, female deaths are higher than male deaths from age 55 years to 80 years and after age 80 years male deaths surpass female deaths. The distribution of mortality by age portrays U-shape, which mirrors the age pattern of mortality in many developing countries where mortality is high at childhood and at the older ages (Chisumpa et al., 2019). Similar pattern of mortality was reported elsewhere in previous studies (Anteneh et al., 2013; Koné et al., 2015).

### 3.2.4 Maternal mortality ratios

**The Sustainable Development Goal 3.1** highlights the need to reduce the global maternal mortality ratio (MMR) to less than 70 deaths per 100,000 live births. However, the MMR in Liberia is high. According to the 2022 LPHC, MMR was 854 deaths per 100,000 live births (Figure 20). Comparably, the census estimate is higher (by 122 deaths) than the LISGIS et al, (2021) data, which reported pregnancy reported deaths for Liberia as 742 deaths per 100,000 live births. Two plausible reasons could account for these differences:

differences in methods of estimation and worsening health conditions.

In Figure 21, from 2000 to 2022, it appears that MMR has not improved. In 2000, MMR was estimated at 578 deaths per 100,000 live births, but by 2007 it had increased sharply to 994 deaths per 100,000 live births. It then reduced to 890 in 2008, increased to 1,072 in 2013 and was recorded at 742 deaths per 100,000 live births in 2019 before settling at the current 854 in 2022. This trend could be linked to the unstable health situation in the country over the years. Generally, improvement in the health of a population has significant consequences on the mortality situation in any country. In the global community, mortality rates have generally decreased due to advancement in modern medicine but deaths associated with specific conditions and groups of people remain a challenge. Maternal mortality is one of such conditions. In 2020, for example, 287,000 women were estimated to have died from maternal-related causes worldwide. This figure translates into about 800 maternal deaths every day. However, it is important to note that this is significantly lower than the estimated 446,000 maternal deaths recorded in 2000 (WHO, 2023). For the SSA Region, 545 maternal deaths per 100,000 live births were recorded in 2020, the highest compared to all other regions (WHO, 2023).

The MMR for Liberia is significantly higher than the SSA regional average and this requires the Government of Liberia to focus on expanding access to healthcare by providing financial support to the Ministry of Health (MoH) and other partners to review

key health policies such as the National Health Policy and Plan (NHPP 2011- 2021), the National Health Policy (2022-2031) and Health Sector Strategic Plan (HSSP) 2022-2026 with the aim of providing strategic directions to accessible healthcare to all (WHO 2022).

**Figure 21:Trends in MMRs, 2000 to 2022, Liberia**
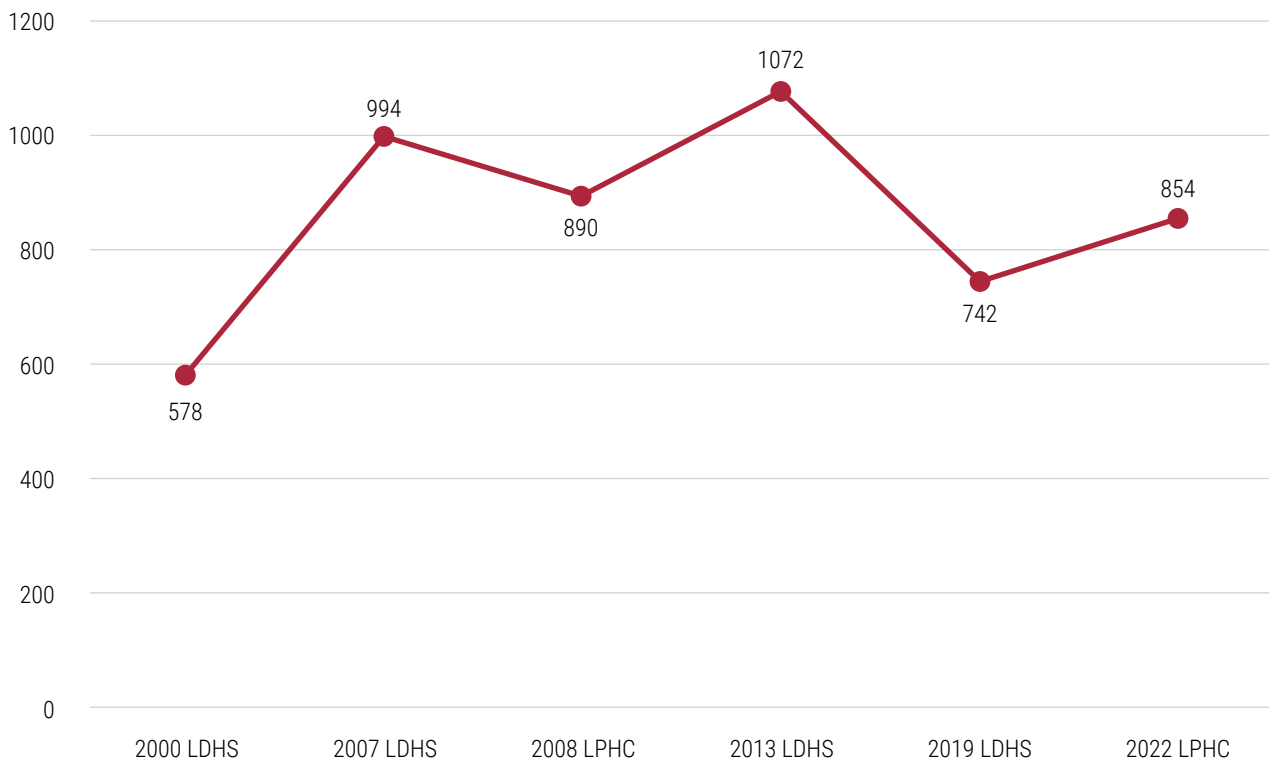


### 3.2.5 Life expectancy at birth

Life expectancy is an indicator of the longevity of the population, which summarizes the mortality experiences of a population at different ages during the life course into a single index that may be derived from a life table calculated from the ASDRs. Life expectancy at birth refers to the average number of years a child born is expected to live. It estimates the additional years that an average person may

be expected to live assuming mortality conditions remain unchanged. The results show that life expectancy at birth in Liberia has improved since the 1974 LPHC (Figure 22). In 2022, life expectancy at birth for males was 55.6 years compared to 48.9 years in 1974. Life expectancy at birth it lower for males than females. In 1974, female life expectancy was 50.0 years, but in 2022 it is 61.2 years. This suggests that in Liberia females tend to live longer than their male counterparts.

**Figure 22: Trends in life expectancy at birth by sex**
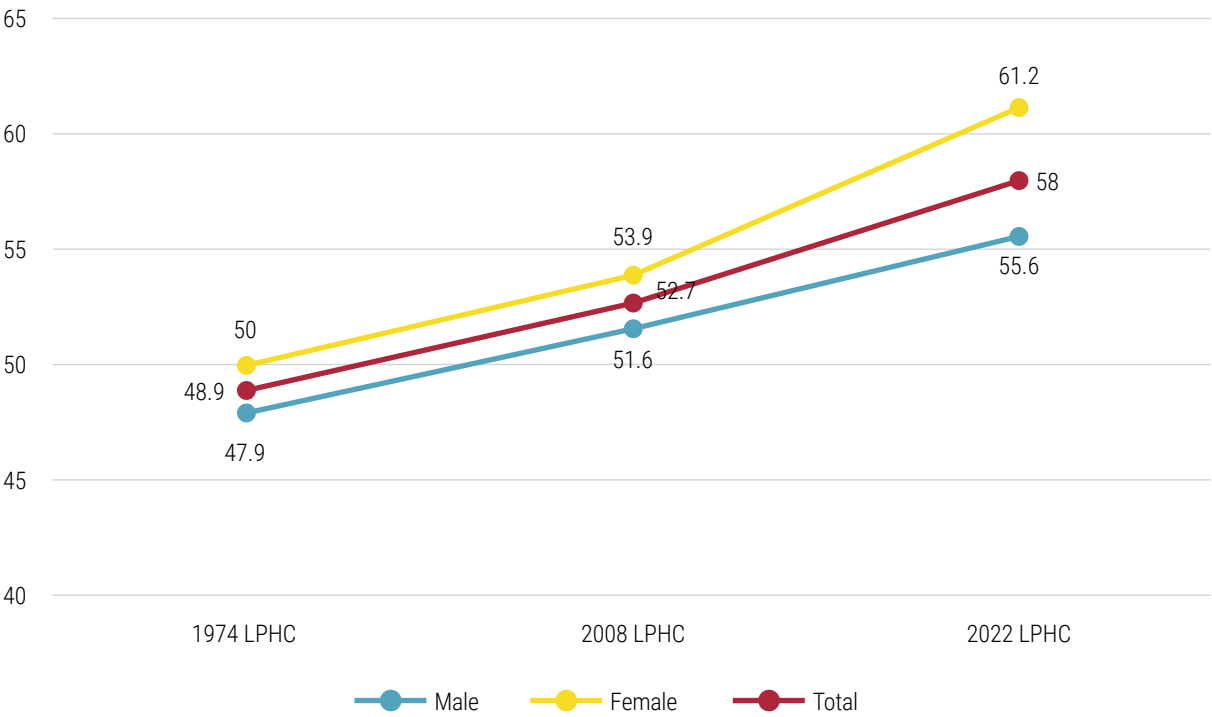


### 3.2.6 Rural-urban differences in life expectancy at birth

One's place of residence is associated with their live expectancy at birth. According to the 2022 LPHC, urban males' life expectancy was 56.4 years compared to 54.2 years for the rural males (Figure 23). Also, among females, those in urban areas (59.1 years) tend to live longer than their counterparts in rural (55.8 years) areas.

**Figure 23: Rural-urban differences in life expectancy by sex**
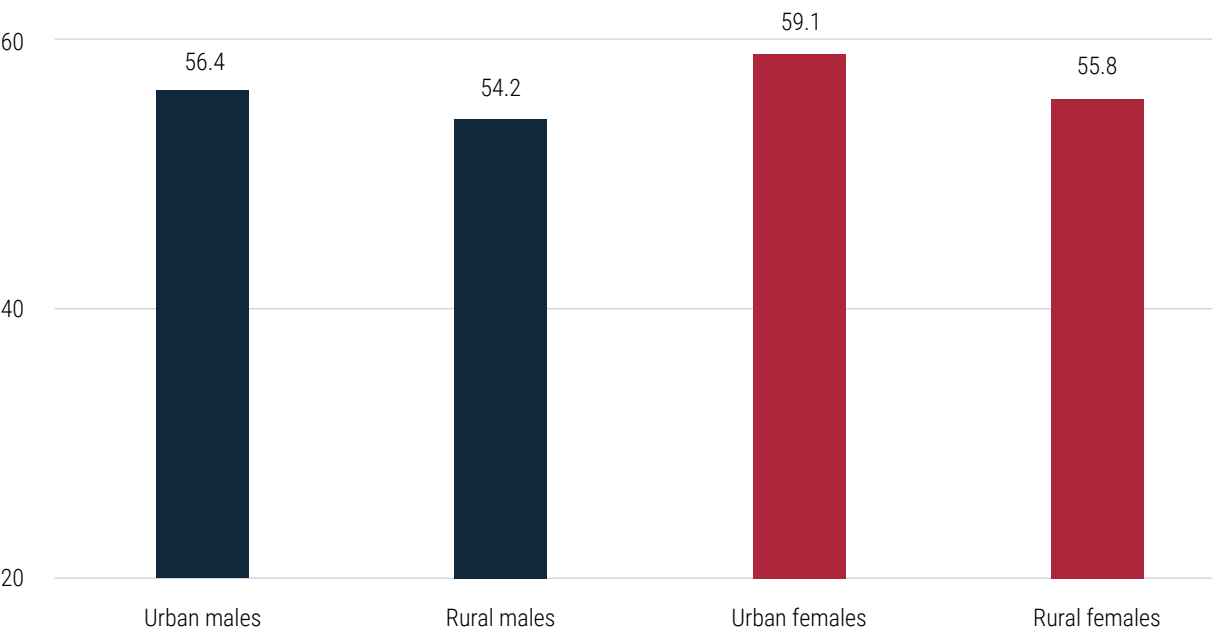
### 3.3 Migration and gender

As a component of population change, migration plays a vital role in the development of societies. Rural agriculturalists may decide to move from the countryside to improve their rural economy by seeking for jobs (both formal and informal) in the city centres (Oucho and Oucho, 2016; Todaro, 1980; Yankson and Bertrand, 2012)urbanisation and health challenges which research and studies in sub-Saharan Africa (SSA. As means of resilience, migration though sometimes considered as risky and undesirable, is often an option to escape poverty, food insecurity, natural disasters and climatic conditions in the country or place of origin (Weeks, 2010). Migration encourages social diversity and it is essential for trade and growth of labour markets. In addition, the decision to migrate is conventionally necessitated by the search for better economic and social conditions with the aim of improving the livelihoods of individuals and their households. While traditionally migration has been undertaken by males,

overtime the concept of feminization of migration has been widely discussed in the literature. Feminization of migration has been attributed to social, economic and cultural factors and ultimately the search for better livelihoods. Although female independent migration offers many benefits in the long- and short-term, social consequences on household cannot be overlooked (Apatinga, Kyeremeh and Arku, 2022).

#### 3.3.1 Migration status and gender

The 2022 LPHC shows that of a total of 5,079,091 people enumerated *(excluding institutional households, floating population and non-Liberians)*, 31.5 per cent were migrants. There were slightly more female migrants (801,215), representing 50.1 per cent compared to male migrants (799,125), which was 49.6 per cent. In contrast, there were a relatively higher proportion of the migrants being male in 2008 (Figure 24).

**Figure 24: Migrant population distribution by gender in Liberia, 2008−2022**
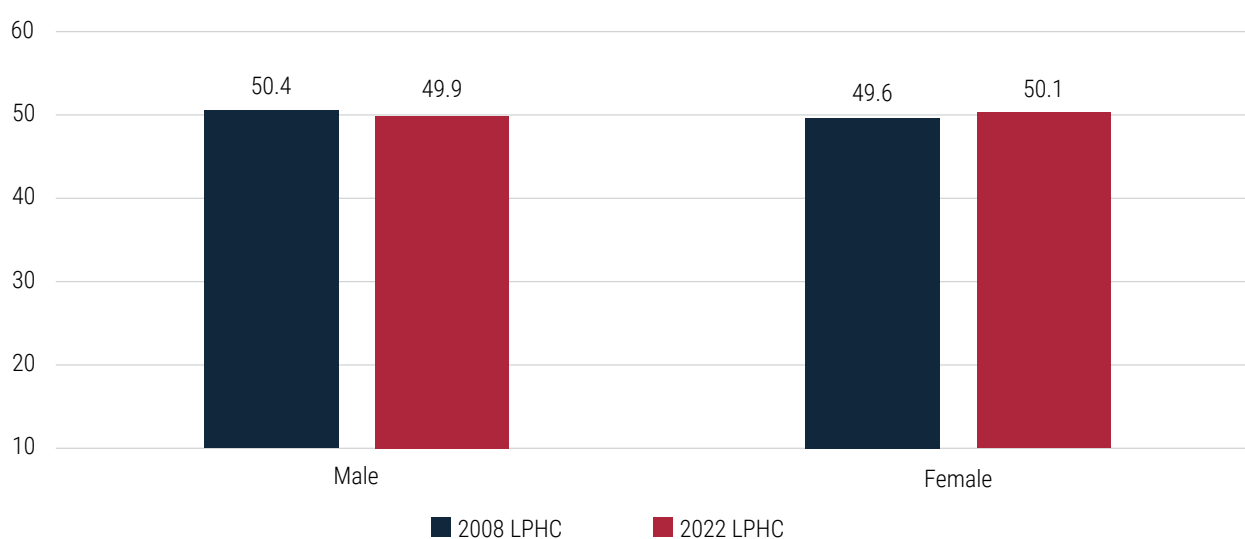


Data excludes institutional households, floating population and non-Liberians

#### 3.3.2 Migrant population

Table 6 shows the migrant population by age and sex. A migrant here refers to an individual enumerated in a county, which is different from where he/she was born. From ages 0 to 34 years, there appears to be more female migrants than male migrants. However, from ages 35 to 74 years, there are more male migrants compared to female migrants. The table finally shows that there are more female migrants

from ages 75 years and above. In the 2022 LPHC, data on reasons for migrating were not collected and so the report does not show reasons why males and females migrated from one area to the other within the different age groups.

Millions of people were displaced by violent conflicts in Liberia during the civil conflicts, leading to a significant surge in forced migration (Teye, 2022). Liberians fled to different parts of the world to seek

asylum. Many migrants chose their destination based on proximity, colonial history, shared official language, ethnic ties, economic and social reasons as seen in the cases of intraregional mobility patterns in West African countries such as Sierra Leone and Liberia and Togo and Ghana, Côte d'Ivoire and Burkina Faso, Ghana and Nigeria (Teye, 2022). However, in post-conflict Liberia, the reasons for migration are more voluntary than forced. Nowadays, a large number of Liberians have relatives who live overseas, and

diasporic remittances play a major economic role in the lives of many people (Bedert, 2021). Participants from a study stated that their home, poverty, low socioeconomic standing, and corruption were the main reasons they had to migrate to Europe (Idemudia et al., 2020). Similarly, internal migratory patterns and settlement practices are aimed towards finding better livelihood conditions at the destination (Bedert, 2021).

### Table 6: Migrant population by sex and age group

| Age group | Per cent migrant | | Total number |
|---|---|---|---|
| | Male | Female | |
| 0-4 | 49.5 | 50.5 | 98,712 |
| 5-9 | 47.7 | 52.3 | 126,320 |
| 10-14 | 46.6 | 53.4 | 157,273 |
| 15-19 | 48.0 | 52.0 | 179,981 |
| 20-24 | 48.3 | 51.7 | 194,585 |
| 25-29 | 47.6 | 52.4 | 161,671 |
| 30-34 | 49.9 | 50.1 | 167,734 |
| 35-39 | 51.3 | 48.7 | 132,403 |
| 40-44 | 55.8 | 44.2 | 121,062 |
| 45-49 | 54.7 | 45.3 | 72,481 |
| 50-54 | 55.4 | 44.6 | 67,387 |
| 55-59 | 53.9 | 46.1 | 35,759 |
| 60-64 | 54.1 | 45.9 | 33,163 |
| 65-69 | 54.0 | 46.0 | 18,673 |
| 70-74 | 51.0 | 49.0 | 14,288 |
| 75-79 | 49.3 | 50.7 | 6,530 |
| 80+ | 45.1 | 54.9 | 12,318 |
| Total | 49.9 | 50.1 | 1,600,340 |

This chapter has analysed data on marriage, fertility, mortality and migration. The results show that SMAM is rising for both males and females although it is lower for females than for males. Additionally, adolescent childbearing remains a challenge in Liberia as 1.9 per cent of adolescents 12-19 years have had a live birth. In Liberia, infant, child and under-5 mortalities have improved significantly

overtime although a rural-urban gap is a concern and needs responsive attention. The MMR in Liberia is also high and calls for all stakeholders to work effectively together to ensure women do not lose their lives when creating lives in childbirth. Quite positively, however, since 1974, life expectancy at birth has increased and is higher for females than for males.

# 4.GENDER, EDUCATION AND ECONOMIC ACTIVITY

## 4.1 Gender and education

Literacy and access to formal education are important measures of socioeconomic development. Specifically, formal education provides the necessary knowledge and skills for individuals to participate in the development of a country (Karpman et al., 2018; Devkota, 2020). The skills developed through access to education are vital for transforming societies and empowering males and females to participate actively in the labour force and also avoid and change practices that impede social, economic, health and cultural growth. The benefits of education have been well documented. For instance, studies have suggested that parents' education is associated with their children's education and health (Quamme and Iversen, 2022; de Buhr and Tannen 2020; Ghanney, 2018). Globally, attaining gender equality in education and ensuring that no one is left behind have been expressed in international frameworks such as the SDGs and Agenda 2030 because of the benefits it proffers on individuals especially females. Women's access to education is vital for delaying age at first sex, birth, marriage, improving the uptake of modern contraceptives, keeping girls in school and increasing access to labour force participation, reducing maternal and infant mortalities and improving household living conditions especially child nutrition and health (Du et al., 2021; Esen and Seren, 2021). This section presents data on sex differences in literacy of the population five years and above and educational attainment of persons three years and older segregated by type of locality and county of residence.

## 4.1.1 Gender and literacy

In Liberia, 57.6 per cent of the population 5 years and above are literate (Figure 25). While 62 per cent of males are literate, about half the population of females is literate. This suggests a literacy gender gap of 8.9 percentage points. Notable rural and urban differences exist among males and females. Among the males, about three in four (73.5 per cent) in urban areas are literate compared to less than half (48.7 per cent) of their rural counterparts. Similarly, 65.4 per cent of females in urban areas are literate compared to 37.1 per cent in rural areas. Thus, in either urban or rural areas, the proportion of males that are literate is higher than among females, with the gender gap being wider in rural (11.7 percentage points) than urban (8.0 percentage points) areas. These results are consistent with scores from the Global Report on gender parity, which shows that gender parity scores in literacy for Liberia remain below 55 per cent for persons 15 years and above (World Economic Forum 2023). Stark differences exist across counties as well. Among males, proportion of literate population ranges from Montserrado (75.7 per cent) as the highest to Grand Cape Mount (43.3 per cent), the lowest. Among the females, Montserrado County (68.1 per cent) again has the highest proportion of those who are literate while Gbarpolu (34.7 per cent) records the least proportion being literate.

The county with the highest male-female gender gap in literacy is River Cess, recording a 15.8 percentage point difference while it is lowest in Grand Gedeh (7.5 percentage points).

## Figure 25: Per cent of literate population by sex and county in Liberia



| | Male | Female | Gender Gap |
|---|---|---|---|
| Urban | 73.5 | 65.4 | 8 |
| Rural | 48.7 | 37.1 | 11.7 |
| Total | 62 | 53.1 | 8.9 |
| Bomi | 54.9 | 43.8 | 11.1 |
| Bong | 46.6 | 36.1 | 10.5 |
| Gbarpolu | 47.9 | 34.7 | 13.2 |
| Grand Bassa | 45.1 | 35.6 | 9.5 |
| Grand Cape Mount | 44.3 | 36.5 | 7.8 |
| Grand Gedeh | 58.8 | 51.2 | 7.5 |
| Grand Kru | 59.4 | 46.4 | 12.9 |
| Lofa | 52.9 | 40.8 | 12.2 |
| Margibi | 61.4 | 51.5 | 9.9 |
| Maryland | 63 | 52.5 | 10.5 |
| Montserrado | 75.7 | 68.1 | 7.6 |
| Nimba | 60.5 | 50.2 | 10.2 |
| River Cess | 52.9 | 37.1 | 15.8 |
| River Gee | 59.3 | 47.2 | 12.1 |
| Sinoe | 53.6 | 41.8 | 11.8 |
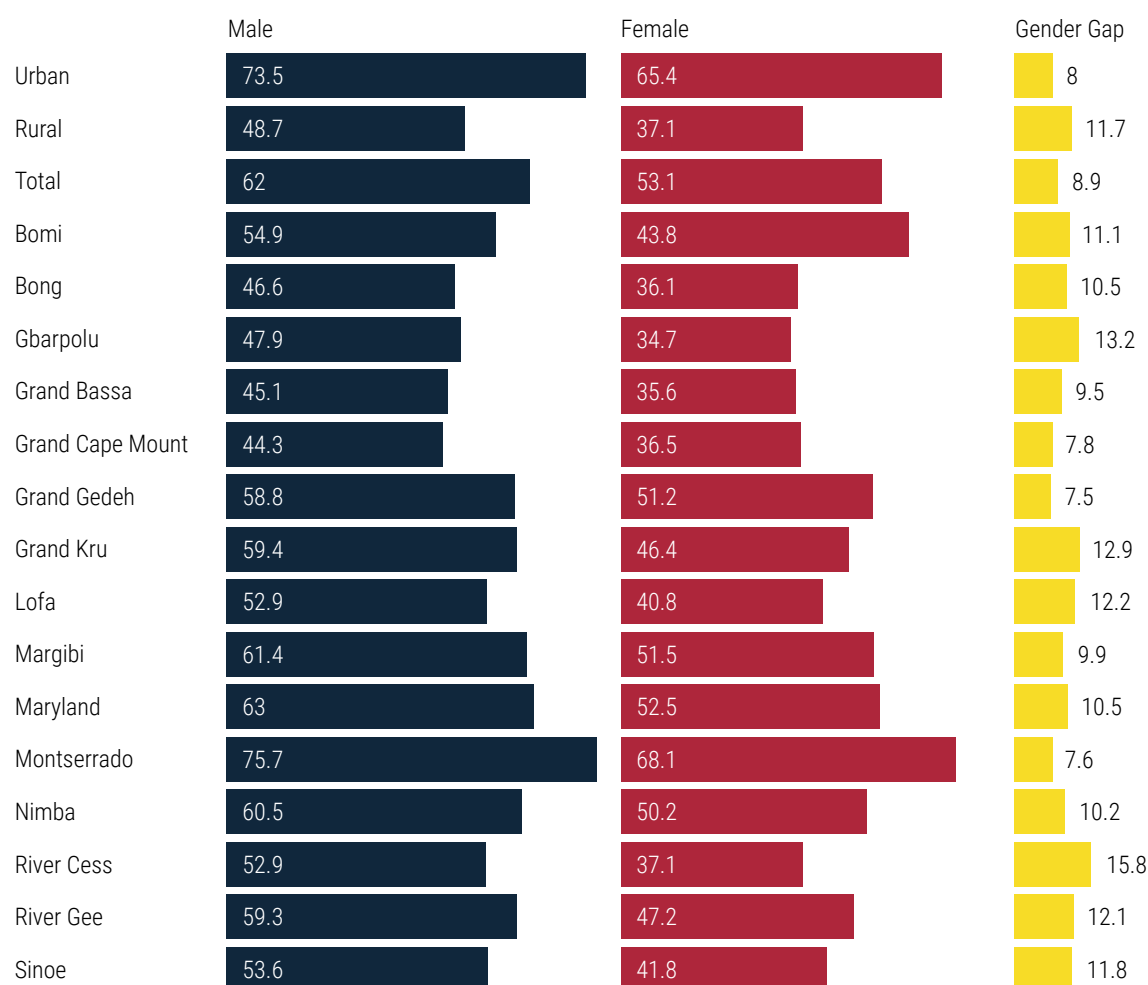
### 4.1.2 Gender and school attendance

Figure 26 shows sex differences in school attendance by place of residence for persons 3 years and older in Liberia. The results show that 30.4 per cent of males in the country have never been to school compared to about two in five (38.9 per cent) of females. Among the males, 18.5 per cent in urban areas have never been to school compared to more than two in five (44.1 per cent), in rural areas. In contrast, a quarter (25.8 per cent) of the females in urban areas have never been to school, but in the rural areas, it is as high as 55.5 per cent. Again, two in five males in urban areas are currently attending school compared to 27 per cent of their counterparts in rural areas. This compares with 41.5 per cent and 26.3 per cent of the females in urban and rural areas, respectively. The gender gap for never attending school shows that females are disadvantaged. Further, in Liberia, the gender gap in school completion is 7.2 percentage points, and is wider in urban (8.9 percentage points) than rural (6.1 percentage points) areas. This suggests that females are more disadvantaged in school completion in urban areas compared to their male counterparts than in the rural areas although school completion rate is still lower for females than males even in rural areas. It is instructive to note that while the gender gap in school dropouts in urban areas (1.0 percentage point) is advantageous for males, in rural areas (4.1 percentage points) it is disadvantageous for males, suggesting that a higher proportion of males than females drop out of school in rural areas than urban while the reverse is the case in rural areas.

**Figure 26: Gender gap in school attendance**
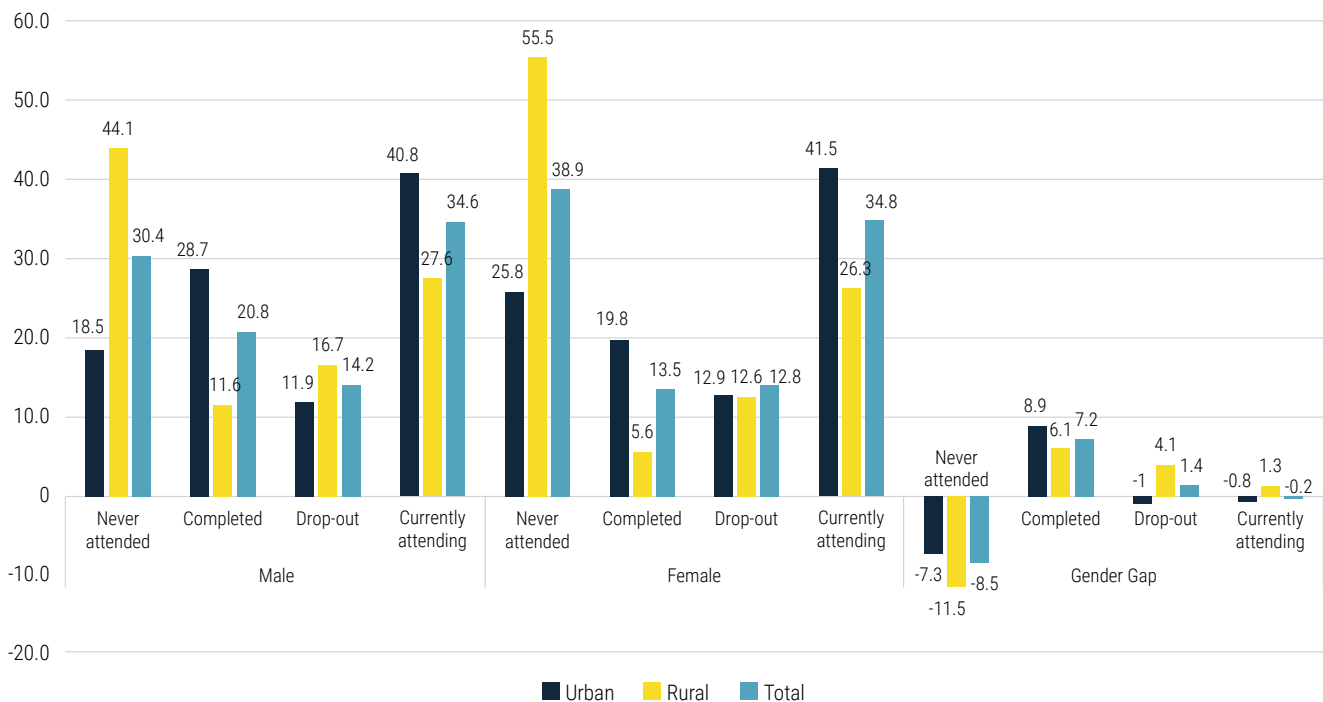


In Table 7, gender differences in school attendance by county are presented. Across all counties, smaller proportions of males than females have never attended school. Among the males, the proportion never attended school ranges from Grand Bassa (49.9 per cent) being the highest, to 16.2 per cent in Montserrado, the lowest. A similar situation exists among the females where Grand Bassa records the highest proportion of about three in five (59.5 per cent) never attended school with Montserrado (23.0 per cent) again recording the lowest. However, the county with the highest gender gap for never attended school is River Cess (15.5 percentage points) while Grand Gedeh records the lowest gender gap at 6.5 percentage points.

Once more, across all counties, higher proportions of males than females reported that they have completed a level of education prior to the census. Among the males, disparities exist and range from the highest in Montserrado (31.9 per cent) to the lowest in River Cess (9.3 per cent). However, there are no visible differences across the counties in respect of school completion. The gender gap in school completion is highest in Grand Kru County (9.1 percentage points) while River Cess recorded the lowest gender gap of 5.5 percentage points, with females being disadvantaged relative to males.

Again, across all counties, a relatively higher proportion of males than females reported to have dropped out of school except for Montserrado County where the reverse appears to be the case with a relatively higher proportion of females (13 per cent) than males (12 per cent) reported to have dropped out of school. Among males, the proportion of dropout is highest in River Cess (24.0 per cent) and lowest in Lofa (10.7 per cent) while among the females, it is highest in River Gee (16.0 per cent) and lowest again in Lofa (9.0 per cent).

## Table 7: Gender gap in school attendance by county of residence

| | Male | | | | Female | | | | Gender gap | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Never attended | Completed | Dropped out | Currently attending | Never attended | Completed | Dropped out | Currently attending | Never attended | Completed | Dropped out | Currently attending |
| Bomi | 35.8 | 13.9 | 16.3 | 34.0 | 47.4 | 7.0 | 13.6 | 32.1 | -11.5 | 6.9 | 2.7 | 1.9 |
| Bong | 47.8 | 12.9 | 13.8 | 25.5 | 58.3 | 6.9 | 10.6 | 24.2 | -10.5 | 6.0 | 3.2 | 1.3 |
| Gbarpolu | 44.3 | 11.7 | 18.9 | 25.1 | 56.8 | 4.5 | 13.8 | 25.0 | -12.5 | 7.2 | 5.2 | 0.1 |
| Grand Bassa | 49.9 | 11.6 | 15.2 | 23.3 | 59.5 | 5.8 | 11.5 | 23.2 | -9.6 | 5.8 | 3.8 | 0.1 |
| Grand Cape Mount | 47.3 | 14.8 | 13.2 | 24.7 | 53.9 | 7.7 | 11.9 | 26.4 | -6.6 | 7.1 | 1.2 | -1.7 |
| Grand Gedeh | 33.1 | 18.1 | 17.1 | 31.7 | 39.6 | 11.4 | 14.9 | 34.0 | -6.5 | 6.7 | 2.1 | -2.3 |
| Grand Kru | 34.1 | 16.9 | 16.8 | 32.2 | 46.5 | 7.8 | 13.4 | 32.4 | -12.4 | 9.1 | 3.5 | -0.2 |
| Lofa | 40.7 | 12.7 | 10.7 | 35.9 | 52.7 | 5.8 | 9.0 | 32.6 | -12.0 | 6.9 | 1.8 | 3.3 |
| Margibi | 29.6 | 20.5 | 14.6 | 35.4 | 39.0 | 12.6 | 13.4 | 35.1 | -9.4 | 7.9 | 1.2 | 0.3 |
| Maryland | 28.3 | 16.1 | 16.1 | 39.4 | 38.5 | 9.1 | 13.2 | 39.2 | -10.2 | 7.0 | 2.9 | 0.2 |
| Montserrado | 16.2 | 31.9 | 12.0 | 39.8 | 23.0 | 23.0 | 13.0 | 41.0 | -6.8 | 8.9 | -1.0 | -1.1 |
| Nimba | 31.7 | 14.5 | 15.6 | 38.2 | 41.4 | 8.2 | 13.8 | 36.6 | -9.6 | 6.2 | 1.8 | 1.6 |
| River Cess | 41.1 | 9.3 | 24.0 | 25.6 | 56.6 | 3.8 | 15.6 | 24.0 | -15.5 | 5.5 | 8.3 | 1.6 |
| River Gee | 34.6 | 14.1 | 19.7 | 31.6 | 46.0 | 6.4 | 16.0 | 31.6 | -11.3 | 7.7 | 3.7 | -0.1 |
| Sinoe | 35.9 | 16.1 | 17.5 | 30.5 | 47.7 | 7.8 | 13.7 | 30.7 | -11.8 | 8.2 | 3.8 | -0.2 |
| Total | 30.4 | 20.8 | 14.2 | 34.6 | 38.9 | 13.5 | 12.8 | 34.8 | -8.5 | 7.2 | 1.4 | -0.2 |

### 4.1.3 Gender and highest level completed

Access to higher levels of education remains a priority to the Government of Liberia. This is because access to higher levels of education beyond primary school potentially provides individuals with skills needed to contribute more to national development (Du et al., 2021; Esen and Seren, 2021). However, attainment at higher levels of formal education is low in Liberia. While 32.7 per cent of the male population have not completed any level of education, about two in five (41.3 per cent) of the female population have not (Figure 27). This shows that there is a gender gap of 8.6 percentage points. In Liberia, only 4.4 per cent of the entire population has university education, with a gender gap of 2.8 percentage points. 3 per cent of females compared to 5.7 per cent of the males have university education. Notable rural and urban differences also exist among males and females. While a third (33.6 per cent) and nearly one in 10 (9.1 per cent) of the urban male population have secondary and university education, respectively,

28.1 per cent and 4.8 per cent of the urban female population have secondary and university education, respectively. On the other hand, 17.6 per cent and 1.9 per cent of the rural male population have secondary and university education, respectively, compared to about one in 10 (9.9 per cent) and less than 1 per cent of the rural female population. In both urban and rural areas, the proportion of females who have not completed any level is higher than for males. However, there is a 5.6 percentage points and 4.3 percentage points gender gap for secondary and tertiary education, respectively, in urban areas compared to 7.7 percentage points and 1.2 percentage points difference in rural areas. The results suggest that a higher proportion of females than males have not completed any level of formal education while a higher proportion of males than females reach higher levels of education, an indication that females may be dropping out of school due to adolescent pregnancy and early marriage. The observed gender gaps are also wider in rural than urban areas.

**Figure 27: Highest level completed and gender gap by level**
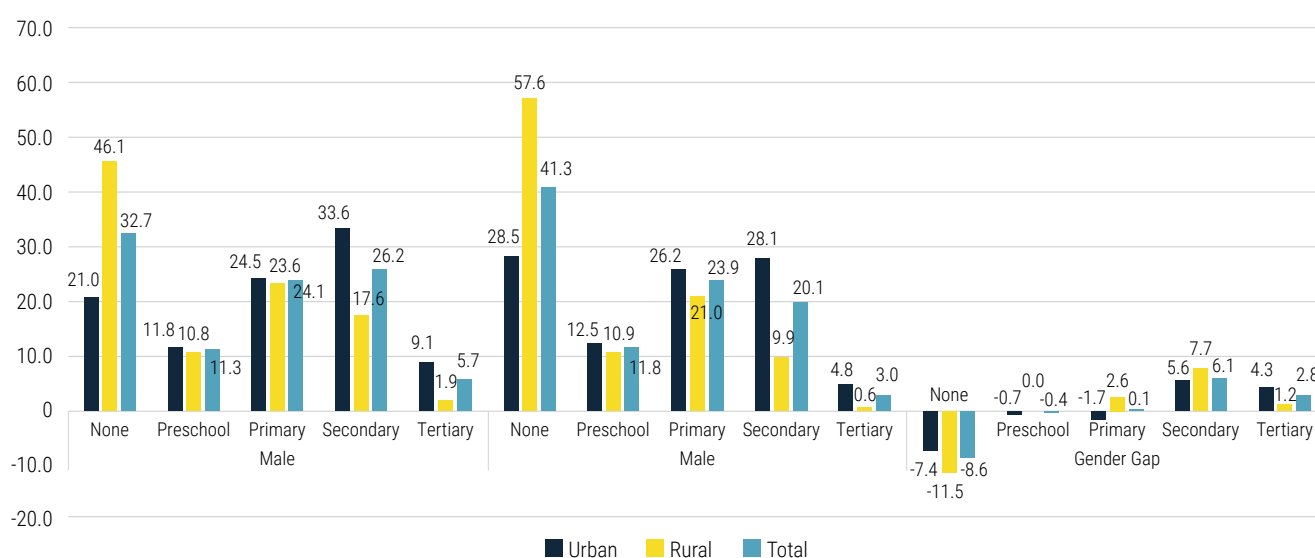


The results in Table 8 show that Grand Bassa recorded the highest proportion who have not completed any level among both males (51.7 per cent) and females (61.4 per cent) while Montserrado had the lowest proportions for males (18.5 per cent) and females (25.5 per cent). These compare with the national average of 41.3 per cent. Again, across all the counties, a higher proportion of females compared to males had not completed any level, which demonstrates the disadvantaged position of females in education in Liberia. In terms of gender gap in education, however, the results indicate that River

Cess has the highest gap of 15.4 percentage points among persons who have not completed any level and 10.1 percentage points at the secondary school level. In contrast, Grand Gedeh and Grand Cape Mount had the lowest gender gap of 6.6 percentage points each at the no level completed compared to the national figure of 8.8 percentage points. At the secondary school level, Montserrado recorded the lowest gender gap of 4.7 percentage points. It is also to be noted that Montserrado County had the highest proportion of males (10.8 per cent) and females (6.0 per cent) who had attained tertiary school level,

and yet recorded the highest gender gap of 4.8 percentage points compared to all the other counties in the country. So far, it appears the counties that are largely rural in character are those that are more disadvantaged when it comes to education, perhaps due to the inequitable distribution of schools in these largely rural counties compared to the urban counties.

**Table 8: Highest level of education completed by county of residence and gender in Liberia**

| | Male | | | | | Female | | | | | Gender gap | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | None | Pre school | Primary | Secondary | Tertiary | None | Pre school | Primary | Secondary | Tertiary | None | Pre school | Primary | Secondary | Tertiary |
| Bomi | 38.4 | 12.1 | 24.9 | 21.2 | 3.3 | 50.1 | 11.4 | 22.9 | 14.2 | 1.4 | -11.6 | 0.7 | 2.0 | 7.0 | 1.9 |
| Bong | 49.9 | 11.4 | 19.9 | 16.2 | 2.6 | 60.4 | 11.4 | 17.2 | 10.0 | 1.0 | -10.5 | 0.1 | 2.7 | 6.2 | 1.6 |
| Gbarpolu | 46.2 | 8.7 | 23.8 | 19.0 | 2.3 | 58.7 | 9.0 | 22.0 | 9.5 | 0.7 | -12.5 | -0.3 | 1.8 | 9.5 | 1.5 |
| Grand Bassa | 51.7 | 8.8 | 20.2 | 16.6 | 2.7 | 61.4 | 9.0 | 17.7 | 10.9 | 1.1 | -9.7 | -0.2 | 2.5 | 5.7 | 1.6 |
| Grand Cape Mount | 49.3 | 7.1 | 19.5 | 20.5 | 3.5 | 55.9 | 8.5 | 20.2 | 14.2 | 1.1 | -6.6 | -1.4 | -0.7 | 6.3 | 2.4 |
| Grand Gedeh | 34.8 | 9.4 | 24.9 | 28.3 | 2.7 | 41.4 | 10.7 | 26.4 | 20.4 | 1.1 | -6.6 | -1.3 | -1.5 | 7.9 | 1.6 |
| Grand Kru | 36.7 | 11.8 | 27.3 | 22.5 | 1.8 | 49.3 | 12.2 | 25.5 | 12.6 | 0.5 | -12.6 | -0.4 | 1.8 | 9.9 | 1.3 |
| Lofa | 42.9 | 10.1 | 24.8 | 19.6 | 2.5 | 54.8 | 10.0 | 22.5 | 11.8 | 0.8 | -11.9 | 0.1 | 2.3 | 7.8 | 1.7 |
| Margibi | 32.5 | 10.6 | 25.6 | 26.0 | 5.3 | 42.0 | 11.1 | 25.5 | 18.9 | 2.4 | -9.5 | -0.5 | 0.1 | 7.0 | 2.9 |
| Mary Land | 30.8 | 11.8 | 27.2 | 25.9 | 4.3 | 41.0 | 12.3 | 26.2 | 18.8 | 1.7 | -10.3 | -0.4 | 1.1 | 7.1 | 2.5 |
| Montserrado | 18.5 | 11.2 | 24.0 | 35.5 | 10.8 | 25.5 | 11.8 | 26.0 | 30.7 | 6.0 | -7.0 | -0.6 | -1.9 | 4.7 | 4.8 |
| Nimba | 34.5 | 15.9 | 26.1 | 20.8 | 2.7 | 44.1 | 16.1 | 25.0 | 13.9 | 1.0 | -9.6 | -0.2 | 1.2 | 6.9 | 1.7 |
| River Cess | 43.0 | 13.2 | 25.4 | 16.7 | 1.7 | 58.4 | 12.7 | 20.1 | 8.2 | 0.6 | -15.4 | 0.5 | 5.3 | 8.5 | 1.1 |
| River Gee | 36.8 | 12.5 | 25.8 | 23.3 | 1.6 | 48.5 | 13.2 | 24.7 | 13.1 | 0.4 | -11.7 | -0.7 | 1.2 | 10.1 | 1.2 |
| Sinoe | 38.0 | 9.6 | 27.3 | 22.8 | 2.2 | 49.8 | 9.9 | 26.7 | 13.0 | 0.6 | -11.9 | -0.3 | 0.7 | 9.9 | 1.6 |
| Total | 32.7 | 11.3 | 24.1 | 26.2 | 5.7 | 41.3 | 11.8 | 23.9 | 20.1 | 3.0 | -8.6 | -0.4 | 0.1 | 6.1 | 2.8 |

### 4.1.4 Gender parity in education

Gender parity in education is an important indicator for measuring a country's efforts towards reducing the gender gap associated with access to formal education. The Government of Liberia has made significant strides towards achieving gender parity in education at the lower levels of education, that is early childhood education, primary, junior and senior secondary school (Ministry of Education, 2023). According to the Liberia Ministry of Education (2016), since 2008, the primary gender parity index (GPI) has increased from 0.88 to 0.96 in 2015. The junior high school GPI, on the other hand, increased from 0.79 in 2008 to 0.98 in 2015. Data from the World Bank also show that, the net enrolment rate for primary school in Liberia in 2019 was 62 per cent for girls and 68 per cent for boys. Additionally, the GPI for primary school education was 0.91, in the country compared to the United Nations Educational, Scientific and Cultural Organization recommendation of 0.97 and 1.03 by the World Bank (2023). This implies that despite the strides made by the country over the years to achieve gender parity in education, more needs to be done. Therefore, it is important that the Government continues to invest adequately in the educational sector to ensure that gender parity is reached at higher levels of education and also for technical and vocational education.

### 4.2 Gender and economic activity

### 4.2.1 Gender and economically active population

An active, productive and skilled national workforce is essential for transforming Liberia's economy and ensure that the goals of the Pro-Poor Agenda for Prosperity and Development (PAPD) are realized. According to the Liberia National Transfer Accounts Profile Report, almost half a million of those in the labour force have no formal education. Further, in 2010, of the 1.1 million people in the labour force, only 30,000 (that is 24,000 males and 6,000 females) had completed an academic degree programme. This suggests that females are significantly less likely to participate in more formal occupation due to their lower access to higher levels of formal education (Christina, 2017; Du et al., 2021). In order for the country to achieve Outcome 2 (Sustainable Economic Development) of the United Nations Sustainable Development Cooperation Framework (UNSDCF) of ensuring a "sustained, diversified and inclusive economic growth driven by investments in agriculture, food security and job creation and is resilient to climate change and natural disasters" in Liberia by 2024, significant investment must be made towards economic empowerment and growth (UNSDCF, 2022). According to the Global Gender Gap Report, 2023, there is relatively even access for males and females for economic opportunity and participation in Liberia. The report further shows that income gap between males and females continue to improve.

### 4.2.2 Gender and agriculture

Agricultural households play an important role not only by providing food for their households but also agricultural produce for sale. In the 2022 LPHC, a household is considered an agricultural household if at least one person in the household is involved in agriculture (Figure 28). In urban areas, 12.1 per cent of male-headed households were involved in agriculture compared to 11.1 per cent of female-headed households. In rural areas, however, more than half (55.1 per cent) of all male-headed households were involved in agriculture compared to 47.6 per cent of all female-headed households. Generally, while nearly a third of all male-headed households were involved in agriculture, one in four female-headed households were agricultural households.

**Figure 28: Per cent of agricultural households by sex of household head**
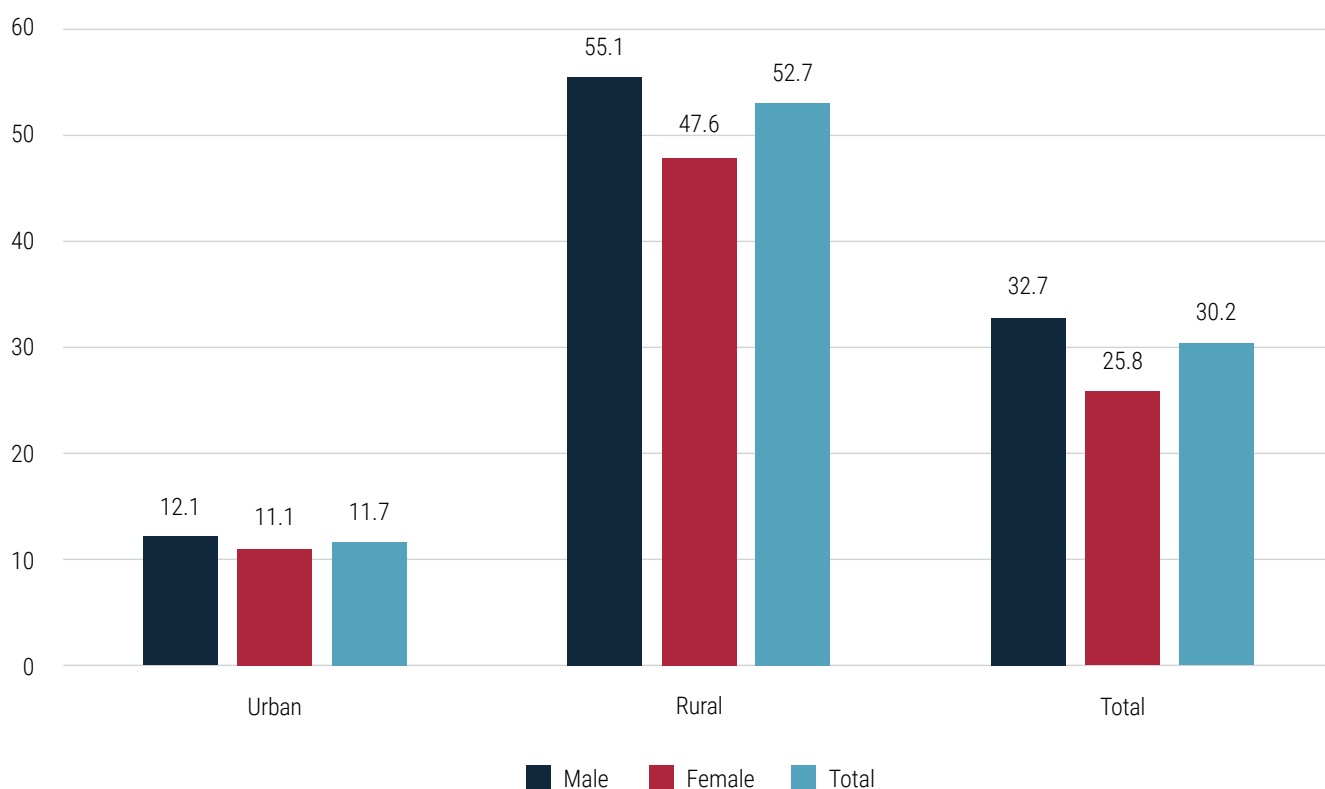


### 4.2.2.1 Access to land for farming activities

In Liberia, majority (64.6 per cent) of agricultural households reported that land used for agricultural purposes are inherited (Table 9). This is followed by 7.7 per cent, 6.6 per cent, 5.5 per cent and 5.2 per cent and 4.8 per cent who indicated that land for agricultural purposed were purchased, they do not own land, obtained the land from private Individual, were squatters and rented the land, respectively. Among both male- and female-headed households, majority reported that the land used for agricultural purposes was inherited (Table 9). However, a relatively higher proportion of male-headed households (65.3 per cent) have access to inherited land for agricultural purposes than female-headed households (63.1 per cent). Further, while 7.8 per cent of male-headed households indicated that the land was purchased, about 7.7 per cent of their female-headed counterparts reported that the land was purchased. A higher proportion of female heads indicated that the land for agricultural purposes was rented (5.7 per cent), gifted (3.2 per cent) or they are squatters (5.5 per cent) than male heads (Table 9).

**Table 9: Access to land for farming activities by household headship**

|  | Total | Per cent | Male-headed households | Per cent | Female-headed households | Per cent |
|---|---|---|---|---|---|---|
| Total | 359,075 | 100.0 | 250,076 | 100.0 | 108,999 | 100.0 |
| I/We do not own | 23,577 | 6.6 | 15,871 | 6.3 | 7,706 | 7.1 |
| Purchased | 27,744 | 7.7 | 19,401 | 7.8 | 8,343 | 7.7 |
| Inherited | 232,106 | 64.6 | 163,360 | 65.3 | 68,746 | 63.1 |
| Rented | 17,083 | 4.8 | 10,910 | 4.4 | 6,173 | 5.7 |

| | Total | Per cent | Male-headed households | Per cent | Female-headed households | Per cent |
|---|---|---|---|---|---|---|
| Government (Provided) | 4,952 | 1.4 | 3,628 | 1.5 | 1,324 | 1.2 |
| Private Company (Provided) | 3,185 | 0.9 | 2,382 | 1.0 | 803 | 0.7 |
| Private Individual (Provided) | 19,919 | 5.5 | 13,787 | 5.5 | 6,132 | 5.6 |
| Squatter | 18,639 | 5.2 | 12,646 | 5.1 | 5,993 | 5.5 |
| Gifted | 10,911 | 3.0 | 7,462 | 3.0 | 3,449 | 3.2 |
| Other | 959 | 0.3 | 629 | 0.3 | 330 | 0.3 |

### 4.2.3 Gender differences in activity status

In this section, results on the employment status of the population are highlighted. The 2022 LPHC gathered data on the activity status of people five years old. Individuals were asked to indicate whether or not they worked seven days prior to the census. From Table 10, it can be observed that 27.8 per cent of the entire population indicated that they worked seven days prior to the census. However, among males' 30.7 per cent reported they had worked and among females a quarter had. It can be observed that 24.3 per cent of the entire urban population in Liberia worked seven days preceding the census.

Among males, 27.5 per cent and among females 21.2 worked. In rural areas, 32.1 per cent of the population indicated that they worked (males= 34.5 per cent versus females = 29.6 per cent). The results further show that among males in Lofa County, 43.1 per cent indicated that they worked and this is the highest proportion across all counties. Also, in Lofa County, 41.4 per cent of the female population reported that they worked seven days preceding the survey, and this is the highest among females across county. Again, in Maryland County 24.6 per cent of the male population worked; the lowest across county and for the female population, 17.9 per cent worked, and this is the lowest across county for the female population.

Table 10: Gender differences in activity status by place of residence and county

| | Males | | | Females | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Did not work | Worked | Total | Did not work | Worked | Total | Did not work | Worked | Total |
| **Total** | **69.3** | **30.7** | **2,366,467** | **75.1** | **24.9** | **2,323,471** | **72.2** | **27.8** | **4,689,938** |
| Urban | 72.5 | 27.5 | 1,270,528 | 78.8 | 21.2 | 1,310,132 | 75.7 | 24.3 | 2,580,660 |
| Rural | 65.5 | 34.5 | 1,095,939 | 70.4 | 29.6 | 1,013,339 | 67.9 | 32.1 | 2,109,278 |
| **County of residence** | | | | | | | | | |
| Bomi | 72.9 | 27.1 | 60,831 | 79.2 | 20.8 | 57,613 | 75.9 | 24.1 | 118,444 |
| Bong | 64.5 | 35.5 | 208,429 | 68.3 | 31.7 | 204,656 | 66.4 | 33.6 | 413,085 |
| Gbarpolu | 69.5 | 30.5 | 45,742 | 75.8 | 24.2 | 39,582 | 72.4 | 27.6 | 85,324 |
| Grand Bassa | 67.1 | 32.9 | 132,439 | 73.8 | 26.2 | 125,094 | 70.3 | 29.7 | 257,533 |
| Grand Cape Mount | 72.0 | 28.0 | 87,796 | 79.0 | 21.0 | 73,445 | 75.2 | 24.8 | 161,241 |
| Grand Gedeh | 67.7 | 32.3 | 106,428 | 75.2 | 24.8 | 92,436 | 71.2 | 28.8 | 198,864 |
| Grand Kru | 64.1 | 35.9 | 51,736 | 71.1 | 28.9 | 46,761 | 67.4 | 32.6 | 98,497 |
| Lofa | 56.9 | 43.1 | 164,781 | 58.6 | 41.4 | 164,889 | 57.8 | 42.2 | 329,670 |
| Margibi | 74.6 | 25.4 | 136,280 | 82.1 | 17.9 | 136,068 | 78.3 | 21.7 | 272,348 |
| Maryland | 75.4 | 24.6 | 78,599 | 80.9 | 19.1 | 77,319 | 78.2 | 21.8 | 155,918 |
| Montserrado | 71.5 | 28.5 | 849,987 | 78.3 | 21.7 | 883,581 | 74.9 | 25.1 | 1,733,568 |
| Nimba | 69.9 | 30.1 | 270,821 | 73.7 | 26.3 | 268,324 | 71.8 | 28.2 | 539,145 |
| River Cess | 62.5 | 37.5 | 41,933 | 69.2 | 30.8 | 37,276 | 65.7 | 34.3 | 79,209 |
| River Gee | 70.8 | 29.2 | 59,393 | 75.2 | 24.8 | 52,800 | 72.9 | 27.1 | 112,193 |
| Sinoe | 73.2 | 26.8 | 71,272 | 80.9 | 19.1 | 63,627 | 76.9 | 23.1 | 134,899 |
| Total | 69.3 | 30.7 | 2,366,467 | 75.1 | 24.9 | 2,323,471 | 72.2 | 27.8 | 4,689,938 |

### 4.2.4 Gender differences in nature of work

In order to explore the type of work individuals in Liberia were engaged in, those who reported that they worked seven days preceding the census were asked about their nature of work (Table 11). Nature of work here refers to whether one is a salary worker, an own-account worker or a contributing family worker. The results show that 30.7 per cent of Liberians who indicated that they worked seven days preceding the census were salary workers, 60.1 per cent were own-account workers and 9.2 per cent contributing family workers. For the male population in Liberia however, 38.4 per cent were salary workers, more than half were own-account workers and 8.2 per cent were contributing family workers. This is contrary to the female population where a little over one fifth (21.0 per cent) were salary workers, 68.6 per cent were own-account workers and one tenth were contributing family workers. These results show more men than women were salary workers and more women than men were own-account workers. Further, slightly more women were contributing family workers.

Among the male population in urban areas, more men (55.0 per cent) than women (30.8 per cent) were salary workers. There is a stark difference for males and females in rural areas. The results show that among the male population in rural areas only 23.1 per cent were salary workers and only 12 per cent of the female population were salary workers. The results show that more women than men were own-account workers in rural areas (males = 68.6 per cent versus females = 77.7 per cent) than in urban areas (males = 36.8 per cent versus females = 58.7 per cent). Across all counties, a higher proportion of males than females were salary workers. In Montserrado, for example, while among males, 60.2 per cent were salary workers and among females, 35.0 per cent were salary workers, the highest across all counties. Generally, across all 15 counties, a higher proportion of females than males were own-account workers and contributing family workers. In Lofa County, 76.1 per cent of males were own-account workers the highest across all counties and among males the county with the lowest proportion of its population being own-account workers is Margibi county, 32.9 per cent. Furthermore, in River Cess, 84.9 per cent are of females are own-account workers the highest across counties. In Grand Kru, a little over one fifth (21.7 per cent) of males are contributing family workers the highest across county and also in Grand Kru, 29.8 per cent of females are contributing family workers.

## Table 11: Gender differences in nature of work by place of residence and county

| | Males | | | | Females | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Salary worker | Own-account workers | Contributing family workers | Total | Salary worker | Own-account workers | Contributing family workers | Total | Salary worker | Own-account workers | Contributing family workers | Total |
| **Total** | **38.4** | **53.4** | **8.2** | **726,616** | **21.0** | **68.6** | **10.4** | **577,851** | **30.7** | **60.1** | **9.2** | **1,304,467** |
| Urban | 55.0 | 36.8 | 8.2 | 349,049 | 30.8 | 58.7 | 10.5 | 278,015 | 44.2 | 46.5 | 9.2 | 627,064 |
| Rural | 23.1 | 68.6 | 8.2 | 377,567 | 12.0 | 77.7 | 10.3 | 299,836 | 18.2 | 72.7 | 9.1 | 677,403 |
| **County of residence** | | | | | | | | | | | | |
| Bomi | 35.3 | 58.6 | 6.1 | 16,488 | 18.3 | 72.7 | 9.1 | 12,010 | 28.1 | 64.5 | 7.3 | 28,498 |
| Bong | 20.4 | 70.3 | 9.3 | 73,904 | 11.2 | 78.0 | 10.7 | 64,971 | 16.1 | 73.9 | 10.0 | 138,875 |
| Gbarpolu | 24.0 | 71.6 | 4.4 | 13,972 | 13.6 | 81.4 | 5.0 | 9,569 | 19.8 | 75.6 | 4.7 | 23,541 |
| Grand Bassa | 34.3 | 58.6 | 7.2 | 43,566 | 18.0 | 71.5 | 10.5 | 32,818 | 27.3 | 64.1 | 8.6 | 76,384 |
| Grand Cape Mount | 41.6 | 51.4 | 7.0 | 24,573 | 23.2 | 67.2 | 9.7 | 15,418 | 34.5 | 57.5 | 8.0 | 39,991 |
| Grand Gedeh | 31.7 | 61.7 | 6.6 | 34,409 | 21.3 | 70.3 | 8.4 | 22,913 | 27.5 | 65.2 | 7.3 | 57,322 |
| Grand Kru | 24.5 | 53.8 | 21.7 | 18,574 | 12.9 | 57.3 | 29.8 | 13,523 | 19.6 | 55.3 | 25.1 | 32,097 |
| Lofa | 13.0 | 76.1 | 10.9 | 70,951 | 7.6 | 80.3 | 12.1 | 68,210 | 10.3 | 78.2 | 11.5 | 139,161 |
| Margibi | 53.2 | 40.7 | 6.1 | 34,616 | 26.0 | 65.1 | 8.9 | 24,356 | 42.0 | 50.8 | 7.3 | 58,972 |
| Maryland | 35.7 | 52.6 | 11.7 | 19,328 | 19.6 | 66.4 | 14.0 | 14,739 | 28.8 | 58.5 | 12.7 | 34,067 |
| Montserrado | 60.2 | 32.9 | 6.9 | 242,526 | 35.0 | 56.2 | 8.8 | 192,083 | 49.1 | 43.2 | 7.7 | 434,609 |
| Nimba | 20.6 | 71.7 | 7.8 | 81,562 | 9.6 | 81.1 | 9.3 | 70,544 | 15.5 | 76.0 | 8.5 | 152,106 |
| River Cess | 21.9 | 73.8 | 4.3 | 15,705 | 10.2 | 84.9 | 4.9 | 11,469 | 17.0 | 78.5 | 4.5 | 27,174 |
| River Gee | 26.4 | 58.0 | 15.6 | 17,365 | 14.1 | 65.9 | 20.0 | 13,086 | 21.1 | 61.4 | 17.5 | 30,451 |
| Sinoe | 46.7 | 44.7 | 8.5 | 19,077 | 26.0 | 62.5 | 11.4 | 12,142 | 38.7 | 51.7 | 9.7 | 31,219 |
| Total | 38.4 | 53.4 | 8.2 | 726,616 | 21.0 | 68.6 | 10.4 | 577,851 | 30.7 | 60.1 | 9.2 | 1,304,467 |

## 4.2.6 Gender and Household Wealth Quintile

Household wealth is an important indicator of the financial/economic standing of the household. This is because it shows to some extent households' ability to afford basic goods and services. In the 2022 Liberian Census, indicators of household members' actual income were not gathered. However, households were asked to indicate whether or not they have some household items that are indicators of wealth. Such items include cell phones, mattress, television, radio, motorcycle, tricycle, cooking stove, etc. These items were then used to compute for the household wealth quintile, which meant that households were grouped into whether they were poorest, poorer, middle, richer or richest based on their access to these household possessions. The results are displayed in Figure 29 and Table 12. In Liberia, nearly similar proportions of households are in the poorest (20.8 per cent) and richest (19.9 per cent) household wealth categories and similar proportions are in the middle (19.9 per cent) and poorer (18.1 per cent) household wealth groups. Some notable differences are observed for rural and urban households. In urban areas, while 2.2 per cent are in the poorest wealth group, in rural areas, more than two in five (43.3 per cent) households are in the poorest wealth group and 34.2 per cent of households in urban areas are in the richest wealth category compared to only 2.5 per cent in rural areas. In rural areas, however, a large proportion of households are in the poorer (29.8 per cent) wealth group in comparison with the urban areas (8.3 per cent).

In Liberia, there are no stark differences between male- and female-headed households by wealth status. For example, while 21.9 per cent of male-headed households are in the poorest wealth group, 19.2 per cent of female-headed households are. Also, 19.2 per cent of female-headed households are within the richest wealth quintile compared to about one in five (20.1 per cent) of the male-headed households. In urban areas, 2.1 per cent of male heads are in the poorest wealth group compared to 2.4 per cent of female heads. However, in rural areas, 42.9 per cent of male heads are in the poorest wealth group compared to 44 per cent of female heads. Again, a higher proportion of the population was in the richest wealth quintile in urban areas (36.1 per cent for male heads and 31.3 per cent for female heads) than in rural areas (2.7 per cent for male heads and 2.1 per cent for female heads). It can be observed that while the results show very little differences between male- and female-headed households within urban and rural areas, there are significant differences between urban and rural areas across wealth quintile by household headship. This shows inequitable distribution of resources across geographical spaces with the rural areas being more disadvantaged.

**Figure 29: Household wealth quintile by sex of household head and type of place of residence**

■ Poorest    ■ Poorer    ■ Middle    ■ Richer    ■ Richest

|  | Total | Urban | Rural |
|---|---|---|---|
| **Total** | 20.8 | 2.2 | 43.3 |
|  | 18.1 | 8.3 | 29.8 |
|  | 19.9 | 23 | 16 |
|  | 21.4 | 32.2 | 8.3 |
|  | 19.9 | 34.2 | 2.5 |
| **Male-headed households** | 21.6 | 2.1 | 42.9 |
|  | 18.2 | 7.8 | 29.5 |
|  | 19.1 | 21.9 | 16.1 |
|  | 20.9 | 32.1 | 8.8 |
|  | 20.1 | 36.1 | 2.7 |
| **Female-headed households** | 19.2 | 2.4 | 44 |
|  | 17.8 | 9.2 | 30.6 |
|  | 21.1 | 24.7 | 15.9 |
|  | 22.3 | 32.4 | 7.4 |
|  | 19.5 | 31.3 | 2.1 |
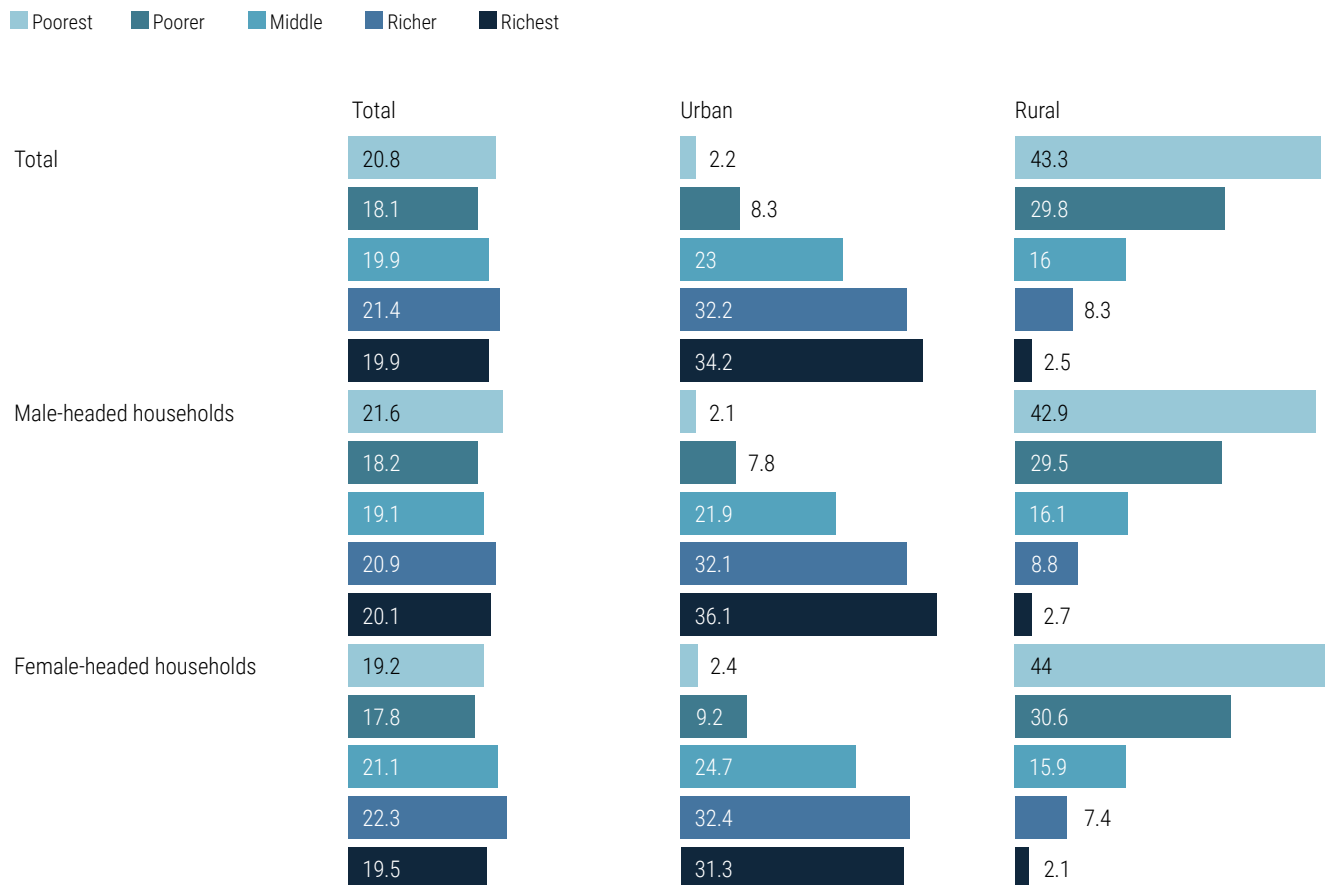
At the county level, River Cess (56.8 per cent) has the highest proportion of its households in the poorest wealth quintile compared to only 2.4 per cent in Montserrado as the lowest (Table 11). Significant disparities also exist regarding the proportion of households within the richest wealth quintile across the counties, ranging from Montserrado (43.2 per

cent), the highest, to River Cess (1.4 per cent), the lowest, while the national average is 19.9 per cent. This is a clear indication of how the counties vary in terms of their wealth status. There are, however, no major differences between male- and female-headed households across the counties.

Table 12: Household wealth quintile by sex of household head and county of residence

| County of residence | Male | | | | | Female | | | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Poorest | Poorer | Middle | Richer | Richest | Poorest | Poorer | Middle | Richer | Richest | Poorest | Poorer | Middle | Richer | Richest |
| Bomi | 30.7 | 27.6 | 19.5 | 14.7 | 7.5 | 31.9 | 27.1 | 20.4 | 13.7 | 6.8 | 31.2 | 27.4 | 19.9 | 14.3 | 7.2 |
| Bong | 38.9 | 24.0 | 18.4 | 14.8 | 3.9 | 34.4 | 23.3 | 22.0 | 16.8 | 3.4 | 37.3 | 23.8 | 19.7 | 15.5 | 3.7 |
| Gbarpolu | 46.2 | 31.6 | 13.0 | 7.8 | 1.5 | 46.0 | 30.7 | 14.0 | 7.8 | 1.4 | 46.1 | 31.3 | 13.3 | 7.8 | 1.4 |
| Grand Bassa | 45.6 | 19.7 | 14.6 | 14.1 | 6.0 | 39.1 | 17.2 | 17.6 | 19.6 | 6.5 | 43.8 | 19.0 | 15.5 | 15.7 | 6.1 |
| Grand Cape Mount | 26.9 | 24.4 | 23.5 | 17.3 | 8.0 | 26.7 | 26.1 | 25.0 | 16.4 | 6.0 | 26.8 | 24.9 | 23.9 | 17.0 | 7.3 |
| Grand Gedeh | 33.3 | 27.8 | 19.9 | 13.6 | 5.4 | 26.0 | 27.0 | 24.2 | 16.7 | 6.1 | 31.1 | 27.5 | 21.2 | 14.5 | 5.6 |
| Grand Kru | 38.1 | 32.2 | 18.8 | 8.8 | 2.1 | 36.7 | 35.1 | 19.1 | 7.2 | 1.8 | 37.6 | 33.3 | 18.9 | 8.2 | 2.0 |
| Lofa | 35.9 | 30.5 | 18.7 | 12.5 | 2.4 | 38.4 | 30.4 | 18.6 | 11.0 | 1.5 | 36.9 | 30.5 | 18.7 | 11.9 | 2.1 |
| Margibi | 16.4 | 15.6 | 24.5 | 27.3 | 16.1 | 16.2 | 16.2 | 26.2 | 28.1 | 13.3 | 16.3 | 15.8 | 25.1 | 27.6 | 15.1 |
| Maryland | 20.2 | 25.8 | 29.1 | 16.1 | 8.8 | 16.2 | 27.6 | 34.8 | 15.4 | 6.0 | 18.6 | 26.5 | 31.5 | 15.8 | 7.6 |
| Montserrado | 2.4 | 5.5 | 16.8 | 31.3 | 44.0 | 2.4 | 5.7 | 17.7 | 32.2 | 41.9 | 2.4 | 5.6 | 17.2 | 31.6 | 43.2 |
| Nimba | 25.5 | 29.3 | 25.9 | 14.1 | 5.2 | 23.6 | 27.2 | 28.5 | 16.2 | 4.5 | 24.9 | 28.6 | 26.8 | 14.8 | 5.0 |
| River Cess | 57.0 | 26.0 | 10.3 | 5.3 | 1.4 | 56.2 | 25.0 | 11.7 | 5.9 | 1.2 | 56.8 | 25.7 | 10.7 | 5.5 | 1.4 |
| River Gee | 32.4 | 29.9 | 23.7 | 11.7 | 2.3 | 24.1 | 33.1 | 29.6 | 11.7 | 1.5 | 29.1 | 31.1 | 26.0 | 11.7 | 2.0 |
| Sinoe | 38.3 | 28.6 | 14.8 | 11.9 | 6.3 | 35.2 | 29.4 | 18.8 | 12.3 | 4.3 | 37.3 | 28.9 | 16.1 | 12.0 | 5.7 |
| Total | 21.6 | 18.2 | 19.1 | 20.9 | 20.1 | 19.2 | 17.8 | 21.1 | 22.3 | 19.5 | 20.8 | 18.1 | 19.9 | 21.4 | 19.9 |

The chapter aimed to highlight gender differences with regard to access to socioeconomic indicators like education, household wealth and participation in agricultural activities. With regard to education, there are higher proportions of males who are literate than females in either urban or rural areas. Concerning involvement in economic activity, higher proportions of female-headed households were agricultural households than male-headed households. There are also wide disparities between the urban and rural households by wealth status. One in five households is in the poorest wealth quintile, and this is higher in rural than urban areas. There are, however, no major differences between male- and female-headed households by wealth status.

# 5. GENDER, VULNERABLE POPULATION AND HEALTH

## 5.1 Gender and disability

Globally, persons with disability continue to experience challenges in accessing education, healthcare services, and employment compared to people without disabilities (PWDs), stigma and prejudice infringe on their human rights and widen the inequality gap. Among PWDs, studies have shown that compared to males, females are more likely to be less educated, have poorer access to employment and are more likely to face other forms of discrimination. For women with disabilities (WWDs), these problems could be exacerbated due to deep-rooted inequalities that females experience. For instance, WWDs are more likely than their non-disabled counterparts to be poorer, have a worse social and economic position, experience heightened vulnerabilities to pregnancy, abuse, inequitable gender norms, and poor healthcare access (Bassoumah and Mohammed, 2020; Ganle, Apolot, Rugoho, and Sumankuuro, 2020; Ganle, Ofori, and Dery, 2021; Mitra, Posarac, and Vick, 2013; Naami, 2015; Schenk et al., 2020)there are currently no workable interventions to reach WWDs with essential SRHR services. This study aims to test the effect of an integrated health facility and individual-level intervention on access to SRHRs information and services among sexually active WWDs aged 15–49 years in Ghana. Methods: A quasi-experimental study design with four arms will be implemented in four districts in the Northern region of Ghana to test the effect of three inter-related interventions. The inventions are (1. The challenges that females with disability encounter are both institutional and socio-cultural. In this section, data highlight gender differences in disability, specifically multiple disabilities and severity of disability segregated by sex, place of residence and county.

## 5.1.1 Gender and disability status

The 2022 LPHC obtained responses from the population 5 years and older on their difficulties in performing key activities using six functional domains which were adopted from the Washington Group on Disability Statistics. These activities include seeing, hearing, communicating, walking or climbing stairs, remembering or concentrating and self-care. Respondents were asked to indicate whether they experience no difficulty, some difficulty, a lot of difficulty or cannot perform at all on the six domains. The composite variable that was created examined overall disability. If a respondent does not experience any difficulty across the six domains it suggests that the respondent has no disability. However, if a respondent experiences some difficulty, a lot of difficulty or cannot perform at all then it suggests that the respondent has a disability. The results show that in 2022, 534316 (11.4 per cent) of the Liberian population were living with a disability (that is they experience difficulty when it comes to performing at least one of the six activities above) (Figure 30). A slightly higher proportion of the females (11.8 per cent) than males (11.0 per cent) were living with disability. Further, a higher proportion of the population live with a disability in rural (12.6 per cent) areas than in urban (10.3 per cent). Slight significant rural and urban differences exist among males and females with regard to disabilities. While 9.9 per cent of the urban male population have disabilities, 10.8 per cent of their female counterparts were having disabilities. Again, in rural areas, 12.2 per cent of males have disabilities compared to 13.1 per cent of their female counterparts.

At the county level, the proportion of the population with disabilities is highest in Bomi (18.3 per cent), perhaps due to the injuries during the civil conflict, and lowest in Margibi (9.7 per cent). Across all counties, the proportion of persons living with disabilities is higher for females than males.

**Figure 30: Population 5 years and older with disabilities by gender**

| | Male | Female | Total |
|---|---|---|---|
| Total | 11 | 11.8 | 11.4 |
| Urban | 9.9 | 10.8 | 10.3 |
| Rural | 12.2 | 13.1 | 12.6 |
| | | | |
| Bomi | 17.8 | 18.9 | 18.3 |
| Bong | 12.6 | 13.3 | 12.9 |
| Gbarpolu | 11.8 | 12.7 | 12.2 |
| Grand Bassa | 10.4 | 11.2 | 10.8 |
| Grand Cape Mount | 11.1 | 11.3 | 11.2 |
| Grand Gedeh | 12 | 12.8 | 12.4 |
| Grand Kru | 15.1 | 16.1 | 15.6 |
| Lofa | 12.6 | 13.9 | 13.2 |
| Margibi | 9.5 | 9.8 | 9.7 |
| Maryland | 11.8 | 13.7 | 12.8 |
| Montserrado | 9.5 | 10.3 | 9.9 |
| Nimba | 11.3 | 12.3 | 11.8 |
| River Cess | 10.7 | 11.9 | 11.3 |
| River Gee | 11.8 | 13.1 | 12.4 |
| Sinoe | 10.1 | 10.9 | 10.5 |
| Total | 11 | 11.8 | 11.4 |

## 5.2 Gender and health

The 2022 LPHC collected information on knowledge and experience of fistula in Liberia. An obstetric fistula is an abnormal opening between a woman's vagina and bladder and/or rectum, through which her urine and/or faeces continually leak. For females, this health condition puts them at risk of experiencing stigma, economic and social burden on their families. The condition is further complicated due to possible recurring infections, infertility, damage to their vaginal tissue with its associated sexual activity challenges and in some cases paralysis of the muscles in their lower legs.

## 5.2.1 Knowledge of fistula

In Liberia, 7.9 per cent (127,817) of the population 15 years and older have ever heard about fistula (Figure 31) with virtually no difference between urban (7.7 per cent) and rural areas (8.0 per cent). Among the males, 7.3 per cent have heard about fistula while it is 8.4 per cent among the females. However, in rural areas, 7.6 per cent of males have ever heard of fistula compared to 8.4 per cent of females. In urban areas too, 7.0 per cent of males compared to 8.4 per cent of females have ever heard of fistula. Across the counties, some differences are visible with regard to knowledge about fistula. The data show that Bomi County recorded the highest proportion (16.4 per cent) of its population with knowledge of fistula (15.2 per cent among males and 17.6 per cent among females). However, Sinoe, only 3.2 per cent of their populations reported that

they have ever heard of fistula. Regarding gender differences, it was observed that with the exception of Lofa County where a slightly higher proportion of males (5.2 per cent) than females (5.0 per cent) had knowledge of fistula, in the remaining 14 counties,

a higher proportion of females than males have knowledge of fistula. Sinoe has the least proportion of her population with knowledge of fistula among both males (3.0 per cent) and females (3.4 per cent).

**Figure 31: Per cent of population with knowledge of fistula by gender, type of place and county of residence**
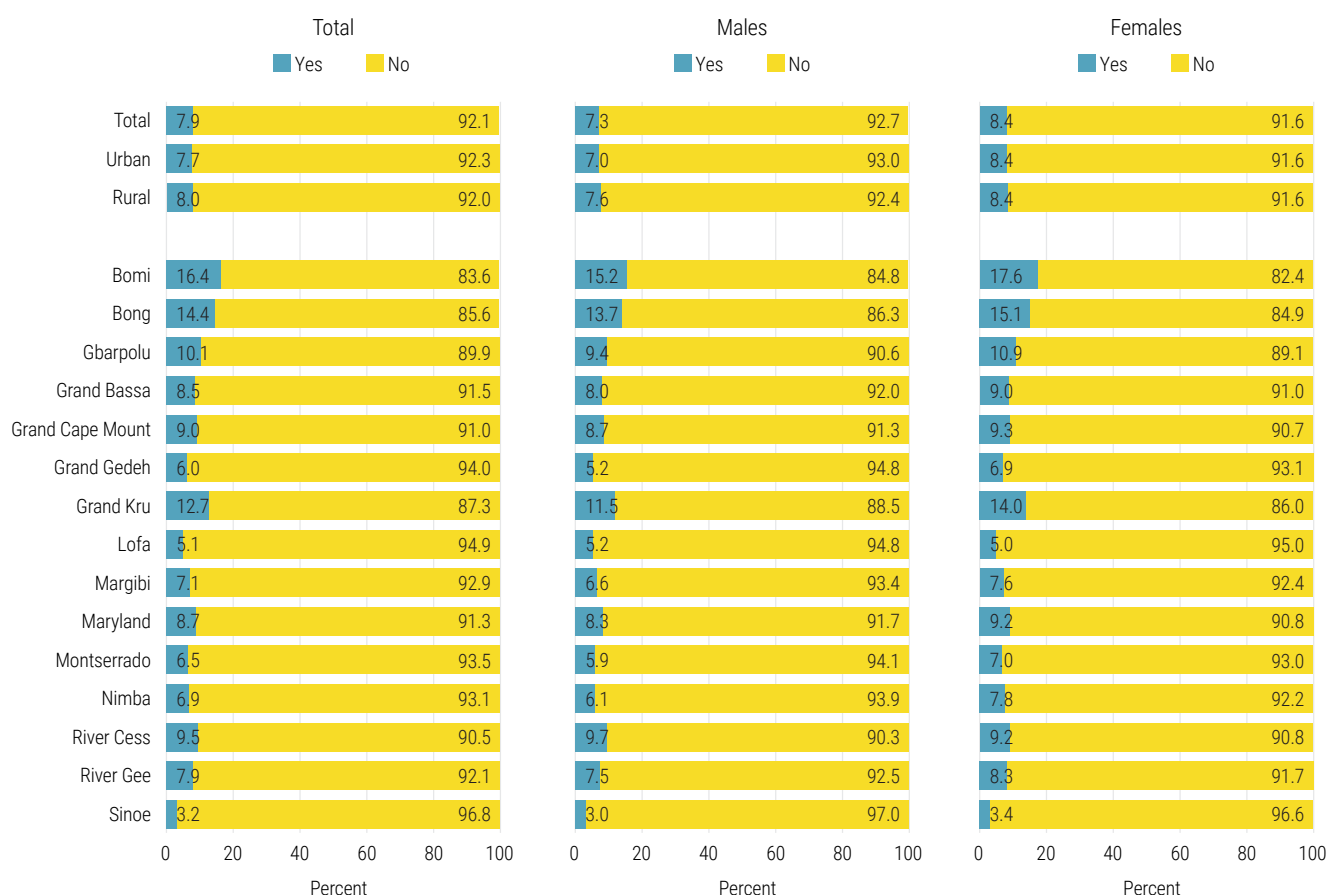


## 5.2.2 Experience of fistula

The burden of fistula affects females disproportionately. Apart from the economic burden of paying for medical treatment, the stigma associated with this health condition is enormous. This is mainly due to females' inability to control their bodily functions, and the smell as a result of being soiled and wet from faeces and urine. In Liberia, 1 per cent of females 15 years and above have experienced

fistula (Figure 32). While 0.8 per cent of females in urban areas have experienced fistula, 1.0 per cent of their rural counterparts have had such an experience. Across counties, Grand Kru County recorded the highest proportion of its female population with the experience of fistula (1.9 per cent) compared to Margibi (0.6 per cent) and Sinoe (0.6 per cent) Counties with the lowest proportion of females with such as an experience.

## Figure 32: Per cent of women 15 years and above who have ever experienced fistula by county



Legend: Yes / No

| County | Yes | No |
|---|---|---|
| Total | 0.9 | 99.1 |
| Urban | 0.8 | 99.2 |
| Rural | 1.0 | 99.0 |
| Bomi | 1.1 | 98.9 |
| Bong | 1.0 | 99.0 |
| Gbarpolu | 1.3 | 98.7 |
| Grand Bassa | 0.7 | 99.3 |
| Grand Cape Mount | 1.5 | 98.5 |
| Grand Gedeh | 1.2 | 98.8 |
| Grand Kru | 1.9 | 98.1 |
| Lofa | 0.8 | 99.2 |
| Margibi | 0.6 | 99.4 |
| Maryland | 1.4 | 98.6 |
| Montserrado | 0.7 | 99.3 |
| Nimba | 1.2 | 98.8 |
| River Cess | 1.1 | 98.9 |
| River Gee | 1.0 | 99.0 |
| Sinoe | 0.6 | 99.4 |
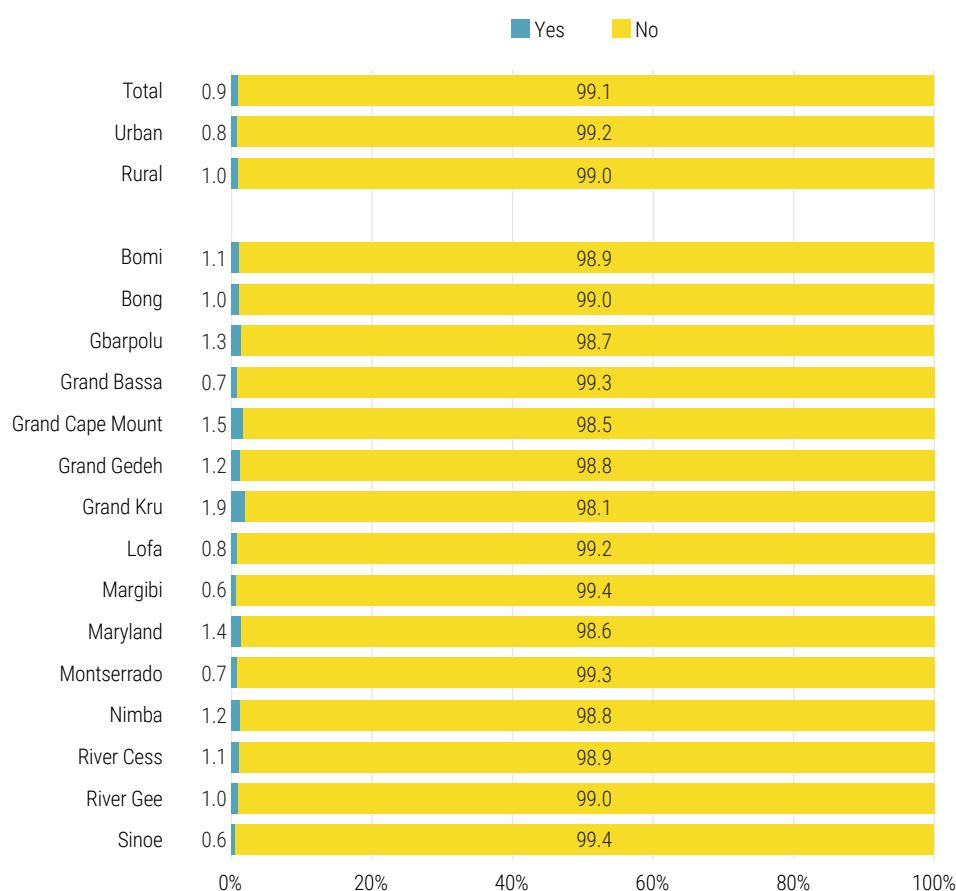
### 5.2.2.1 Sociodemographic characteristics of women and their experience of fistula

Table 13 shows some sociodemographic characteristics of women with fistula in Liberia. With regard to age, the data show that across the various age groups, as age increases the proportions of females who have experienced fistula also increases but marginally. For example, among females 15-19, 20-24 and 25-29 years, 0.4 per cent, 0.8 per cent and 0.9 per cent, respectively indicated that they have ever experienced fistula. Experience of fistula in older ages 40-44 years (1.1 per cent), 45-49 years (1.2 per cent) and 50 years and above (1.3 per cent) appears to be higher than in younger ages.

From the data presented, it is observed that as highest level of education completed increases the proportion of females who experienced fistula increases. Among females with no formal education, 0.8 per cent have experienced fistula compared to 0.9 per cent and 0.7 per cent, respectively among those with preschool and primary school education. Also, among females with secondary and university education, 1.0 per cent and 2.1 per cent, respectively reported that they had ever experienced fistula.

With respect to marital status, 0.7 per cent of never married females and 0.7 per cent of those in consensual unions indicated that they have ever experienced fistula. The divorced (1.6 per cent) and the widowed (1.4 per cent) recorded the highest proportion of fistula experience in comparison with all other marital status categories. On the other hand, fistula experience was similar among monogamous married females (1.1 per cent) and those in polygynous unions (1.1 per cent).

The results by type of place of residence also show that slightly higher proportion of women in rural areas (1.0 per cent) than those in urban areas (0.8 per cent) have experienced fistula.

Additionally, data on activity status show that among those who reported that they had worked seven days preceding the census 1.4 per cent had experienced fistula compared to 0.4 per cent of those who indicated that they did not work. For those

who indicated that they had worked, among salary workers, 1.7 per cent had experienced fistula, 1.0 per cent of own-account workers and 1.8 per cent of contributing family workers had experienced fistula.

**Table 13: Women's background characteristics and experience of fistula**

|  | Yes | Per cent | No | Per cent | Total |
|---|---|---|---|---|---|
| **Age** |  |  |  |  |  |
| 15-19 | 1,375 | 0.4 | 321,469 | 99.6 | 322,844 |
| 20-24 | 2,299 | 0.8 | 303,341 | 99.2 | 305,640 |
| 25-29 | 2,069 | 0.9 | 225,363 | 99.1 | 227,432 |
| 30-34 | 2,279 | 1.0 | 216,558 | 99.0 | 218,837 |
| 35-39 | 1,751 | 1.0 | 165,683 | 99.0 | 167,434 |
| 40-44 | 1,598 | 1.1 | 139,362 | 98.9 | 140,960 |
| 45-49 | 988 | 1.2 | 84,795 | 98.8 | 85,783 |
| 50+ | 3,015 | 1.3 | 231,182 | 98.7 | 234,197 |
| Highest level completed |  |  |  |  |  |
| None | 6,057 | 0.8 | 727,750 | 99.2 | 733,807 |
| Preschool | 545 | 0.9 | 62,638 | 99.1 | 63,183 |
| Primary | 2,527 | 0.7 | 345,270 | 99.3 | 347,797 |
| Secondary | 4,726 | 1.0 | 480,856 | 99.0 | 485,582 |
| University | 1,433 | 2.1 | 67,371 | 97.9 | 68,804 |
| Other tertiary | 86 | 2.2 | 3,868 | 97.8 | 3,954 |
| Marital status |  |  |  |  |  |
| Never married | 6,734 | 0.7 | 939,718 | 99.3 | 946,452 |
| Married monogamous | 6,484 | 1.1 | 565,191 | 98.9 | 571,675 |
| Married polygamous | 352 | 1.1 | 31,052 | 98.9 | 31,404 |
| Separated | 330 | 1.4 | 23,911 | 98.6 | 24,241 |
| Divorced | 145 | 1.6 | 8,660 | 98.4 | 8,805 |
| Widow/widower | 930 | 1.4 | 65,330 | 98.6 | 66,260 |
| Consensual Union | 399 | 0.7 | 53,891 | 99.3 | 54,290 |
| Place of residence |  |  |  |  |  |
| Urban | 7,785 | 0.8 | 947,526 | 99.2 | 955,311 |
| Rural | 7,589 | 1.0 | 740,227 | 99.0 | 747,816 |
| Total | 15,374 | 0.9 | 1,687,753 | 99.1 | 1,703,127 |
| Activity status |  |  |  |  |  |
| Worked | 7,875 | 1.4 | 540,107 | 98.6 | 547,982 |
| Did not work | 7,499 | 0.6 | 1,147,646 | 99.4 | 1,155,145 |

| | Yes | Per cent | No | Per cent | Total |
|---|---|---|---|---|---|
| **Age** | | | | | |
| Nature of work | | | | | |
| Salary worker | 600 | 1.7 | 34,055 | 98.3 | 34,655 |
| Own -account worker | 2,730 | 1.0 | 261,258 | 99.0 | 263,988 |
| Contributing family worker | 4,545 | 1.8 | 244,794 | 98.2 | 249,339 |
| Total | 7,875 | 1.4 | 540,107 | 98.6 | 547,982 |

### 5.2.3 Knowledge of someone who has ever experienced fistula

This section shows the proportion of the population who know someone who has experienced fistula in the country. In Liberia, 1.5 per cent of the population knows someone who has had fistula (Figure 33). While 1.6 per cent of those in rural areas reported that they know someone who has had fistula, about 1.4 per cent of their urban counterparts reported that they know someone who has had fistula. With regard to gender differences, 1.7 per cent of females know someone who has ever experienced fistula compared to 1.3 per cent of males. Similarly, in urban areas, 1.2 per cent of males know someone who has had fistula compared to 1.6 per cent of females. In rural areas, 1.4 per cent of males compared to 1.8 per cent of females know someone who has had fistula. This shows that when asked directly if the females have ever experienced fistula, the proportions are slightly lower than when asked about their knowledge of someone who has ever experienced fistula.

Across counties, Grand Kru County (2.8 per cent) recorded the highest proportion of its population with knowledge of someone who has experienced fistula. This compares to 0.8 per cent of the population of Sinoe, which is the lowest. Some notable differences are observed among males and females by county. While 2.3 per cent of males in Grand Kru County reported that they know someone who had experience fistula, 3.4 per cent of females indicated that they know someone with such an experience in the same county.

**Figure 33: Per cent of population with knowledge of someone who has ever experienced fistula by gender and locality of residence**



## 5.3 Gender-based violence

The Domestic Violence Act, 2019 of Liberia addresses physical, sexual, economic, emotional, verbal and psychological abuse as well as intimidation and harassment. However, GBV is a public health concern nationally. While the 2022 LPHC did not collect data on GBV, recent national estimates on GBV were obtained from the 2019-20 LDHS. The results (Figure 34) from that survey show that in 2019-20, 60 per cent of females aged 15-49 years have experienced physical violence and nine per cent have experienced sexual violence compared to 44 per cent and 18 per cent in 2007, respectively (LISGIS et al., 2008 and 2021). Females who have ever been pregnant also reported having experienced violence. The report shows that among females who have ever been pregnant 7 per cent have experienced physical violence during pregnancy.

Both males' and females' attitudes towards wife beating are alarming. Respondents were asked to indicate if a husband is justified in hitting or beating his wife if she goes out without telling him, neglects the children, burns the food, refuses to have sex with him or argues with him. The results presented indicate the proportion of men and women who reported that wife beating is justified on at least one of the five reasons. Figure 34 shows the proportion of males and females who approve of wife beating on at least one of the five reasons in 2007, 2013 and 2019. Interestingly, a higher proportion of females approve of wife beating than males across the three survey years. In 2007 while about three in five (59.0 per cent) females approved of wife beating, a little less than a third (30.2 per cent) of their male counterparts approve of wife beating on at least one of the five reasons. In 2019, however, the proportion of males and females who approved of wife beating decreased to 25 per cent among males and 37 per cent among females.

**Figure 34: Trends in justifying wife beating on at least one reason by sex**
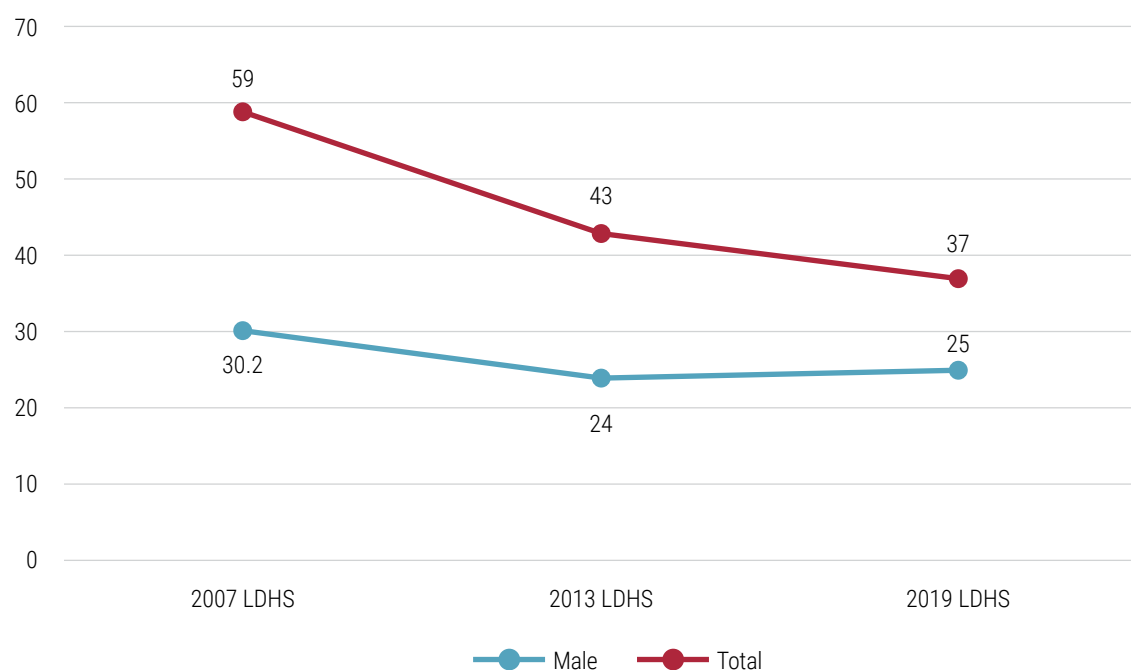


## 5.4 Female genital cutting

FGC continues to be a major public health challenge in Liberia. This practice is underpinned in cultural beliefs and while it is a violation of the fundamental human right of girls and women the practice is widespread. According to the 2019-2020 LDHS, more than eight in 10 females aged 15-49 years have ever heard about FGC. Of these, close to two in five (38 per cent) reported that they have experienced FGC (see 2019-2020 LDHS for further details). From Figure 35, significant differences are observed across county. While in River Gee, Grand Kru and Sinoe, 2 per cent, 3 per cent and 5 per cent respectively of women aged 15-49 years have ever experienced FGC, the highest proportion of females with the experience of FGC are in Gbarpolu (78 per cent), Grand Cape Mount (71 per cent) and Lofa (68 per cent) counties.

**Figure 35: FGC of women 15-49 years by county (2019–2022 LDHS)**
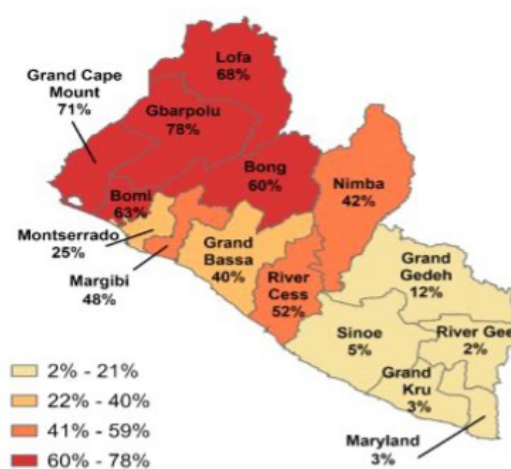


Source: 2019-20 Liberia Demographic and Health Survey

In order to prevent FGC, awareness and educational campaigns on the dire consequences must be intensified. This will complement the already 225 awareness creation activities that were conducted across the country that focused on social behaviour change to address GBV (UNSDCF, 2022). Further, it is important that the Government considers criminalizing FGC to serve as a deterrent to perpetrators and protect the right and health of women and girls. The 2011 Education Law of Liberia provides that no child shall be subjected to harmful cultural practice, sexual abuse and harassment, etc. Liberia has a supportive legal and policy environment for the promotion of child protection and the prevention of child abuse.

# 6. CONCLUSION AND RECOMMENDATIONS

**6.1 Conclusion**

The aim of this gender thematic report was to provide vital data on key socioeconomic and demographic indicators in Liberia, segregated by sex using the 2022 LPHC data and other complementary datasets such as past censuses and Demographic and Health Surveys. The gender thematic report is vital because it relates to the 2030 Agenda for Sustainable Development, which highlights the need for gender equality and the empowerment of women and girls. This goal is further linked to SDG 4 on ensuring the right to inclusive and equitable high-quality education and lifelong learning. These are key indicators for national development with regard to gender mainstreaming and improving access to key resources for males and females. The 2022 LPHC provided vital data for the analysis of gender differentials across key indicators at the national and county levels.

The results show that the sex composition of the population has changed marginally overtime. In 2008, males and females made up 50.0 per cent each of the population. However, by 2022, there were slightly more males (50.4 per cent) than females (49.6 per cent) in the population. The proportion of households being headed by females has been increasing overtime. While more than three in five households are headed by males, 35.6 per cent are headed by females. In Liberia, while the mean household size for male-headed households is decreasing, that for female-headed households is increasing. This implies that female household heads have more responsibilities in terms of number of people to provide for in their households. Furthermore, although there has been improvement with regard to access to key amenities such as electricity, improved sources of fuel for lighting, improved drinking water sources and improved human waste disposal facilities, some significant gender differences require attention. For instance, access to electricity as the main source of fuel for lighting for households remained relatively low (about a third of households have access to electricity for lighting) although it has been improving since 2008. Among male- and female-headed households, no notable difference is seen on the use of electricity as the main source of fuel for lighting. Rural-urban

disparity is stark and requires further attention. While among male-headed households in urban areas 55.3 per cent have access to electricity, 51.4 per cent of female-headed households in urban areas have access to electricity. In rural areas, however, for male-headed households only 7 per cent have access to electricity compared to 6.7 per cent of their female heads in the same rural areas. This shows that for both male- and female-headed households in rural areas, access to electricity as the main source of lighting is a challenge. In Liberia charcoal and wood fuels remain the universal sources of cooking fuel for both male- and female-headed households and only 1.0 per cent and 1.4 per cent of households rely on cooking gas and electricity, respectively, as their main source of cooking fuel. This has implications for respiratory and eye infections. With regard to access to improved water sources it appears that more female-headed households have access to improved water sources than households headed by males. However, some counties continue to face challenges concerning access to improved water sources. For instance, in River Cess only 37.3 per cent of the population of the county has access to improved sources of drinking water. This has implications for waterborne disease infection especially among children. Again, like access to improved water sources, higher proportions of female-headed households than male-headed households have access to improved toilet facilities.

Access to essential services such as education, health facilities and water sources for use by households enables household members to access useful services such as primary education, health facilities and high-quality water. While the gender differences in access/proximity to essential services were small, large rural-urban differences were observed. When water sources are closer to households, it will relieve school going children especially girls from spending too long time in fetching water in the morning for use within households to get ready for school. Further, if community members have to travel long distances to access healthcare, then uptake of healthcare services may be limited. As long as physical access to education, health and water is a challenge,

individuals will be unable to enjoy their right to these key services.

The SMAM in Liberia has been increasing gradually. In 2022, the SMAM was 27 years for females and 31 years among males, representing a difference of four years between the sexes. The increases in SMAM can be attributed to nationwide effort to keep both males and females in school. This potentially reduces their chances of early marriage and adolescent pregnancies. Adolescent childbearing is a major public health concern and the Government is working assiduously to curb this menace. The mean age at birth for those 12-19 years was 13 years. Further, while 1.9 per cent of adolescents 12-19 years have had a live birth, about 8.4 per cent have begun childbearing. There are many factors that increase the risk of adolescent childbearing. These include child marriage, low levels of education, low economic opportunity, power imbalance between spouses, weak power sexual relations and gender norms.

In Liberia, neonatal, infant, child and under-5 mortalities have improved significantly although they remain high. Except for neonatal death were there are more less female deaths than male deaths, in Liberia, female infant, child and under-5 deaths are higher among females than males. Furthermore, rural-urban differences are alarming and should be addressed efficiently. For example, more male and female infants die in rural areas than in the urban although there are more male infant deaths than female infant deaths overall. While there has been some improvement, sustained commitment to this progress will ensure that infant, child and under-5 mortalities reduce further in order to achieve Target 3.2 of Goal 3 of the SDGs of ending preventable deaths of newborns, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births.

Furthermore, there are fewer female mortalities than male mortalities and this is due to the fact that generally females tend to live longer than their male counterparts. The higher male deaths observed can be attributed to males having riskier lifestyles and engaging in conflicts. Also, men engaging in risky professions potentially put them at a higher risk of death.

At 854 deaths per 100,000 live births, the MMR in Liberia constitutes a concern. The high levels of MMR could be due to differences in methods of estimation and worsening health conditions. The MMR for Liberia is significantly higher than the SSA regional average and this requires urgent and continuous attention from the Government of Liberia. Life

expectancy at birth in Liberia has increased between 2008 and 2022 and remains higher for females than for males. In 2008, male life expectancy was 51.6 years compared to 53.9 years for females. By 2022, however, life expectancy at birth for males was 55.6 years compared to 61.2 years for females. Significant rural-urban differences with regard to life expectancy require investment in healthcare across geographical zones to improve access to primary healthcare across the country especially in rural areas.

The migration data point to the feminization of migration in Liberia. There were slightly more female migrants, representing 50.1 per cent compared to male migrants. With regard to education, there are higher proportions of males than females who are literate in Liberia and in either urban or rural areas, the proportion of males that are literate is higher than females. Significantly low proportions of literate population across all counties except Montserrado require urgent attention. A higher proportion of females than males have never been to school and there are stark disparities by type of place and county of residence and this has implications for access to higher levels of education. The proportion of the population never attending school could be attributed to multiple factors like access to schools and socio-cultural challenges that limit one's ability to have formal education. While it appears that gender parity may have been reached at the lower levels of education, significantly higher proportions of males than females are receiving higher levels of education. In order to achieve SDG 4 regarding access to education for all, continuous effort and investment must be made towards ensuring that girls and boys especially those in rural counties complete free, equitable and high-quality primary and secondary education leading to relevant outcomes by 2030. Compared to households headed by females, a smaller proportion of households headed by males are agricultural households.

In Liberia, 11.4 per cent of the population are PWDs. The results show that slightly more females (11.8 per cent) than males (11.0 per cent) have disabilities. The analysis has also shown that the proportion of females who indicated that they had ever experienced fistula is relatively lower than those who said they knew other persons who have ever experienced the condition. This suggests that fistula experience in Liberia could be a bit higher than was reported by females. FGC, child marriage and other GBV are harmful practices in Liberia that require sustained advocacy and intervention to eliminate.

## 6.2 Recommendations

The analysis of the 2022 LPHC shows that gender inequality in access to resources and also on key indicators is a challenge in Liberia. Based on the findings, the following recommendations are made. First, the Government of Liberia must put in place interventions, policies and legislative regulations that are sound and gender-responsive in order to reduce gender inequality across various sectors. At the national level, the Revised National Gender Policy should be implemented. When implemented, the Revised National Gender Policy will help to eliminate various forms of gender-based discrimination and ensure that both women and men have access to essential resources needed for their own development and that of the nation. The results show that the population of the economically active group, that is individuals aged 15-64 years is increasing and the population of Liberia presents a classic description of a youth bulge. It is important that Government invests adequately in the various population groups as shown by the changes in the population age structure especially in the increasing size of the population of the youth. Harnessing the demographic dividend through investments in young people, mainly investment in education, health, access to economic activities and good governance will ensure that Liberia benefits from this youth bulge. The data showed that access to formal education is poor and particularly low for females and for both males and females in rural areas. The Ministry of Education and Local Government must commit to expanding access to schools and educational activities such as technical and vocational training institutions in rural areas. The 2022 LPHC shows that the Government must continue to prioritize Free Compulsory Basic Education especially in rural areas and for both males and females by bringing schools closer to learners.

Particularly, interventions that ensure that girls stay in schools should be adopted. National and international partners must work together to ensure that investments in education are used judiciously and cover wide geographical areas. It is important that efforts are made to eliminate factors that keep girls out of school. Government through the Ministry of Education must commit to expanding access to formal education for both females and males. Child marriage, adolescent pregnancies and any other factors that keep girls out of school should be eliminated and this can be done by prosecuting offenders, adopting and intensifying national campaigns on the need to keep girls in school.

Again, proximity to key resources such as education, health and water is a challenge. Expanding access to these key resources will ensure that girls and boys can go to school, women have access to health facilities for maternal and child health needs and communities have access to potable water. For example, the MMR in Liberia is alarmingly high. It is recommended that the MoH with the Spatial Planning Department of the Ministry of Local Government map out areas where maternal mortality rates are highest and their proximity to health facilities. This will give some indication of access to health facilities for women of reproductive ages.

While expanding national and rural electrification is a long-term investment that the Government of Liberia should invest in to ensure that households have access to electricity for lighting, the Government can also invest in solar energy to complement the LEC. Further, providing improved cook stoves to households will go a long way to reduce the inhalation of smoke from wood and charcoal use that is near universal in Liberia. This is especially important for the health of women, girls and children who are usually in the kitchen where these less clean fuels are used. Government must further expand access to improved water sources in Liberia especially in rural areas and across key counties like River Cess where access to improved water sources is the lowest.

GBV and harmful practices like FGC and child marriage are social problems in Liberia. The Ministry of Gender, Children and Social Protection and all law enforcement agencies must ensure that the ratified 2019 Domestic Violence Bill in Liberia is enforced to abolish all forms of violence against women, children and men. Efforts to end child and early marriage must be intensified to provide females of school going age alternative options such as access to formal or technical/vocational education. Further, the Affirmative Action Bill or Equal Representation and Participation Act of Liberia, which establishes a 30 per cent quota for women in Parliament and also endorses several rights and principles in favour of women, with specific measures to increase participation of women in politics must be implemented. This will ensure that women are adequately represented in Parliament and also contribute to decisions on national development. Moreover, as more women hold positions at the national level, young women and men will be inspired to stay in school with the aim of contributing meaningfully to national development in the future.

With regard to vulnerable populations such as PWDs, strategies such as providing social protection investments as stated in the ARREST agenda to cover access to essential healthcare, basic income and food security for example must be effectively implemented, especially for females as females are being disproportionately affected by disabilities compared to males. Also, to ensure that older persons live dignifying lives, old age social security structures should continually be developed and sustained. This is critical to support their health and socioeconomic needs.

Further, the data show that fistula is a health concern for women in Liberia as 1 per cent of females have ever experienced fistula while 1.3 per cent of males and 1.7 per cent of females reported that they know someone who has ever experienced fistula. The Government of Liberia must expand access to healthcare by increasing financial support to the MoH. Further, key health policies such as the National Health Policy and Plan (NHPP 2011–2021), the National Health Policy (2022–2031) and Health Sector Strategic Plan (HSSP) 2022–2026 with the aim of providing strategic directions to accessible healthcare to all must be reviewed with a special focus on maternal healthcare in Liberia. This will

go a long way to also reduce the high MMR for Liberia. The data also show adolescent girls also experience fistula. In July 2023, the Government of Liberia launched its FP2030 Commitment. The aim is to strengthen the delivery of high-quality rights-based adolescent and youth-friendly family planning services. This will target various age groups and demographics of adolescents and young people in order to reduce unwanted pregnancy by 10 percent among adolescent girls by the end of 2030. It is important that Government's efforts to achieve these goals are intensified and expanded. This will go a long way to reduce adolescent births that can put young people at risk of fistula.

Particularly, more interventions must be put in place to reduce the mortality gender gap. To achieve Target 3.2 of the SDGs on reducing under-5 mortality to at least 25 per 1,000 live births and neonatal mortality to at least 12 per 1,000 by 2030, all stakeholders must continue to work towards sustaining the progress made to achieve the SDGs in Liberia according to schedule. Specifically, some investigation/audit must be conducted to understand why more female infant, child and under-5 deaths are being recorded in Liberia.

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# Appendix

## Appendix 1: Age and Sex Structure of the Liberian Population

| Age group | 2008 | | | | | 2022 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Male | Percent | Female | Percent | Total | Male | Percent | Female | Percent | Total |
| 0-4 | 276,384 | 7.9 | 274,886 | 7.9 | 551,270 | 271,732 | 5.2 | 278,220 | 5.3 | 549,952 |
| 05-09 | 245,591 | 7.1 | 239,546 | 6.9 | 485,137 | 305,694 | 5.8 | 308,910 | 5.9 | 614,604 |
| 10-14 | 215,480 | 6.2 | 206,709 | 5.9 | 422,189 | 316719 | 6.0 | 315,903 | 6.0 | 632,622 |
| 15-19 | 188,786 | 5.4 | 186,387 | 5.4 | 375,173 | 315,619 | 6.0 | 322,844 | 6.1 | 638,463 |
| 20-24 | 163,741 | 4.7 | 178,062 | 5.1 | 341,803 | 293,896 | 5.6 | 305,640 | 5.8 | 599,536 |
| 25-29 | 139,216 | 4.0 | 153,769 | 4.4 | 292,985 | 213,502 | 4.1 | 227,432 | 4.3 | 440,934 |
| 30-34 | 112,332 | 3.2 | 120,455 | 3.5 | 232,787 | 219,223 | 4.2 | 218,837 | 4.2 | 438,060 |
| 35-39 | 94,130 | 2.7 | 96,251 | 2.8 | 190,381 | 170,298 | 3.2 | 167,434 | 3.2 | 337,732 |
| 40-44 | 81,093 | 2.3 | 73,634 | 2.1 | 154,727 | 170,868 | 3.3 | 140,960 | 2.7 | 311,828 |
| 45-49 | 64,404 | 1.9 | 55,413 | 1.6 | 119,817 | 100,206 | 1.9 | 85,783 | 1.6 | 185,989 |
| 50-54 | 43,418 | 1.2 | 35,810 | 1.0 | 79,228 | 95,866 | 1.8 | 78,708 | 1.5 | 174,574 |
| 55-59 | 32,427 | 0.9 | 27,745 | 0.8 | 60,172 | 48,307 | 0.9 | 40,942 | 0.8 | 89,249 |
| 60-64 | 25,392 | 0.7 | 26,540 | 0.8 | 51,932 | 47,888 | 0.9 | 41,159 | 0.8 | 89,047 |
| 65-69 | 19,331 | 0.6 | 21,374 | 0.6 | 40,705 | 26,288 | 0.5 | 22,497 | 0.4 | 48,785 |
| 70-74 | 14,131 | 0.4 | 15,579 | 0.4 | 29,710 | 21,094 | 0.4 | 20,341 | 0.4 | 41,435 |
| 75-79 | 9,792 | 0.3 | 9,157 | 0.3 | 18,949 | 9,611 | 0.2 | 9,888 | 0.2 | 19,499 |
| 80+ | 14,297 | 0.4 | 15,348 | 0.4 | 29,645 | 1,7216 | 0.3 | 20,662 | 0.4 | 37,878 |
| Total | 1,739,945 | | 1,736,665 | | 3,476,610 | 2,644,027 | | 2,606,160 | | 52,50,187 |

## Appendix 2: Sex of Head of Household by Place and County of Residence

| | Male headed | Percent | Female headed | Percent | Total |
|---|---|---|---|---|---|
| Urban | 399,038 | 61.3 | 252,093 | 38.7 | 651,131 |
| Rural | 365,898 | 68.2 | 170,243 | 31.8 | 536,141 |
| County of residence | | | | | |
| Bomi | 23,011 | 59.6 | 15,580 | 40.4 | 38,591 |
| Bong | 71,011 | 64.5 | 39,088 | 35.5 | 110,099 |
| Gbarpolu | 15,704 | 70.1 | 6707 | 29.9 | 22,411 |
| Grand Bassa | 49,571 | 71.5 | 19,716 | 28.5 | 69,287 |
| Grand Cape Mount | 30774 | 68.1 | 14,396 | 31.9 | 45,170 |
| Grand Gedeh | 30,421 | 69.7 | 13,242 | 30.3 | 43,663 |
| Grand Kru | 12,642 | 61.4 | 7,962 | 38.6 | 20,604 |
| Lofa | 44,667 | 59.4 | 30,593 | 40.6 | 75,260 |
| Margibi | 47,574 | 65.8 | 24,702 | 34.2 | 72,276 |
| Maryland | 21,976 | 59.1 | 15,238 | 40.9 | 37,214 |
| Montserrado | 283,633 | 63.0 | 166,277 | 37.0 | 449,910 |
| Nimba | 83,994 | 65.6 | 43,957 | 34.4 | 127,951 |
| River Cess | 15,186 | 72.0 | 5,901 | 28.0 | 21,087 |
| River Gee | 14,436 | 60.4 | 9,470 | 39.6 | 23,906 |
| Sinoe | 20,336 | 68.1 | 9,507 | 31.9 | 29,843 |
| **Total** | **764,936** | **64.4** | **422,336** | **35.6** | **1,187,272** |

## Appendix 3: Sex of Head of household by Size of Household, Place and County of Residence

| | Total Household Population | Number of households | Average household size | Total Male Household Population | Number of Households headed by males | Average household size | Total Female Household Population | Number of Households headed by Females | Average household size |
|---|---|---|---|---|---|---|---|---|---|
| Urban | 2,814,748 | 651,131 | 4.3 | 1,378,725 | 399,038 | 3.5 | 1,436,023 | 252,093 | 5.7 |
| Rural | 2,363,736 | 536,141 | 4.4 | 1,220,996 | 365,898 | 3.3 | 1,142,740 | 170,243 | 6.7 |
| **County of residence** | | | | | | | | | |
| Bomi | 132,022 | 38,591 | 3.4 | 67,894 | 23,011 | 3.0 | 64,128 | 15,580 | 4.1 |
| Bong | 462,825 | 110,099 | 4.2 | 232,470 | 71,011 | 3.3 | 230,355 | 39,088 | 5.9 |
| Gbarpolu | 94,874 | 22,411 | 4.2 | 50,599 | 15,704 | 3.2 | 44,275 | 6,707 | 6.6 |
| Grand Bassa | 290,885 | 69,287 | 4.2 | 148,530 | 49,571 | 3.0 | 142,355 | 19,716 | 7.2 |
| Grand Cape Mount | 175,973 | 45,170 | 3.9 | 94,886 | 30,774 | 3.1 | 81,087 | 14,396 | 5.6 |
| Grand Gedeh | 213,331 | 43,663 | 4.9 | 113,096 | 30,421 | 3.7 | 100,235 | 13,242 | 7.6 |
| Grand Kru | 108,761 | 20,604 | 5.3 | 56,626 | 12,642 | 4.5 | 52,135 | 7,962 | 6.5 |
| Lofa | 365,162 | 75,260 | 4.9 | 181,760 | 44,667 | 4.1 | 183,402 | 30,593 | 6.0 |
| Margibi | 301,580 | 72,276 | 4.2 | 150,632 | 47,574 | 3.2 | 150,948 | 24,702 | 6.1 |
| Maryland | 171,384 | 37,214 | 4.6 | 86,251 | 21,976 | 3.9 | 85133 | 15,238 | 5.6 |
| Montserrado | 1,881,818 | 449,910 | 4.2 | 917,447 | 283,633 | 3.2 | 964,371 | 166,277 | 5.8 |
| Nimba | 617,000 | 127,951 | 4.8 | 309,328 | 83,994 | 3.7 | 307,672 | 43,957 | 7.0 |
| River Cess | 89,926 | 21,087 | 4.3 | 47,134 | 15,186 | 3.1 | 42,792 | 5,901 | 7.3 |
| River Gee | 123,450 | 23,906 | 5.2 | 64,727 | 14,436 | 4.5 | 58,723 | 9,470 | 6.2 |
| Sinoe | 149,493 | 29,843 | 5.0 | 78,341 | 20,336 | 3.9 | 71,152 | 9,507 | 7.5 |
| **Total** | **5,178,484** | **1,187,272** | **4.4** | **2,59,9721** | **764,936** | **3.4** | **2,578,763** | **422,336** | **6.1** |

## Appendix 4: Household's Main Source of Fuel for Lighting by Sex of Household Head, Type of Place of Residence and County

| | Total | | | | | Male | | | | | Female | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Elec-tricity | Unim-proved sources | Solar panel | Chinese/battery light | Total Male | Elec-tricity | Unim-proved sources | Solar panel | Chinese/battery light | Total Female | Elec-tricity | Unim-proved sources | Solar panel | Chinese/battery light |
| Urban | 651,131 | 53.8 | 2.9 | 3.8 | 39.4 | 399,038 | 55.3 | 2.8 | 4.0 | 37.8 | 252,093 | 51.4 | 3.1 | 3.5 | 42.0 |
| Rural | 536,141 | 6.9 | 11.5 | 8.0 | 73.6 | 365,898 | 7.0 | 11.5 | 8.2 | 73.2 | 170,243 | 6.7 | 11.6 | 7.4 | 74.3 |
| **County of residence** | | | | | | | | | | | | | | | |
| Bomi | 38,591 | 25.1 | 7.4 | 3.4 | 64.2 | 23,011 | 24.8 | 7.6 | 3.6 | 64.1 | 15,580 | 25.5 | 7.1 | 3.0 | 64.4 |
| Bong | 110,099 | 6.2 | 8.4 | 3.5 | 81.9 | 71,011 | 6.7 | 8.6 | 3.6 | 81.1 | 39,088 | 5.5 | 7.9 | 3.3 | 83.2 |
| Gbarpolu | 22,411 | 5.9 | 11.5 | 7.7 | 74.9 | 15,704 | 6.1 | 11.3 | 7.8 | 74.8 | 6,707 | 5.5 | 11.8 | 7.3 | 75.3 |
| Grand Bassa | 69,287 | 6.9 | 9.7 | 4.1 | 79.3 | 49,571 | 7.1 | 10.1 | 4.1 | 78.6 | 19,716 | 6.4 | 8.5 | 4.2 | 80.9 |
| Grand Cape Mount | 45,170 | 19.0 | 8.1 | 11.8 | 61.0 | 30,774 | 18.9 | 8.2 | 12.0 | 60.9 | 14,396 | 19.3 | 8.0 | 11.4 | 61.3 |
| Grand Gedeh | 43,663 | 14.1 | 11.7 | 13.5 | 60.7 | 30,421 | 13.7 | 12.4 | 13.8 | 60.1 | 13,242 | 15.2 | 10.0 | 12.7 | 62.1 |
| Grand Kru | 20,604 | 6.8 | 25.4 | 20.2 | 47.5 | 12,642 | 7.4 | 24.2 | 21.0 | 47.3 | 7,962 | 5.8 | 27.3 | 19.0 | 47.9 |
| Lofa | 75,260 | 5.4 | 8.8 | 11.6 | 74.2 | 44,667 | 5.9 | 8.5 | 12.0 | 73.5 | 30,593 | 4.6 | 9.2 | 11.0 | 75.2 |
| Margibi | 72,276 | 19.1 | 7.5 | 4.8 | 68.6 | 47,574 | 19.4 | 7.7 | 5.5 | 67.5 | 24,702 | 18.6 | 7.1 | 3.6 | 70.8 |
| Maryland | 37,214 | 30.5 | 12.2 | 7.9 | 49.3 | 21,976 | 30.8 | 12.8 | 8.8 | 47.7 | 15,238 | 30.1 | 11.4 | 6.7 | 51.7 |
| Montser-rado | 44,9910 | 66.3 | 2.4 | 1.4 | 29.9 | 283,633 | 66.2 | 2.3 | 1.6 | 29.9 | 166,277 | 66.4 | 2.4 | 1.2 | 30.0 |
| Nimba | 12,7951 | 11.4 | 7.8 | 7.6 | 73.2 | 83,994 | 11.3 | 7.9 | 8.4 | 72.4 | 43,957 | 11.5 | 7.6 | 6.3 | 74.6 |
| River Cess | 21,087 | 3.9 | 4.9 | 9.2 | 82.0 | 15,186 | 3.9 | 4.8 | 9.6 | 81.7 | 5,901 | 4.0 | 5.2 | 8.2 | 82.6 |
| River Gee | 23,906 | 22.6 | 10.6 | 10.0 | 56.8 | 14,436 | 7.2 | 7.5 | 24.6 | 60.6 | 9,470 | 5.7 | 6.7 | 21.0 | 66.7 |
| Sinoe | 29,843 | 14.3 | 18.7 | 12.3 | 54.7 | 20,336 | 15.2 | 19.3 | 12.7 | 52.8 | 9,507 | 12.6 | 17.2 | 11.5 | 58.7 |
| **Total** | **1,187,272** | **32.6** | **6.8** | **5.7** | **54.8** | **764,936** | **32.2** | **7.0** | **6.0** | **54.8** | **422,336** | **33.4** | **6.5** | **5.1** | **55.0** |

**Appendix 5: Household's Main Source of Cooking Fuel by Sex of Household Head, Type of Place and County of Residence**

| | Total | | | | | |
|---|---|---|---|---|---|---|
| | **Total** | **Electricity** | **Cooking Gas** | **Kerosine** | **Wood/ charcoal** | **Other** |
| Urban | 651,131 | 2.3 | 1.6 | 0.4 | 95.1 | 0.7 |
| Rural | 536,141 | 0.4 | 0.2 | 0.1 | 99.0 | 0.2 |
| **County of residence** | | | | | | |
| Bomi | 38,591 | 0.7 | 0.3 | 0.2 | 98.5 | 0.3 |
| Bong | 110,099 | 0.4 | 0.1 | 0.1 | 99.1 | 0.2 |
| Gbarpolu | 22,411 | 0.2 | 0.1 | 0.2 | 99.3 | 0.2 |
| Grand Bassa | 69,287 | 0.6 | 0.3 | 0.1 | 98.7 | 0.3 |
| Grand Cape Mount | 45,170 | 2.2 | 0.4 | 0.4 | 96.7 | 0.4 |
| Grand Gedeh | 43,663 | 0.8 | 0.3 | 0.2 | 98.2 | 0.4 |
| Grand Kru | 20,604 | 1.0 | 0.4 | 0.1 | 98.2 | 0.3 |
| Lofa | 75,260 | 0.5 | 0.1 | 0.1 | 99.1 | 0.2 |
| Margibi | 72,276 | 0.7 | 0.7 | 0.2 | 98.1 | 0.3 |
| Maryland | 37,214 | 1.4 | 0.6 | 0.1 | 97.7 | 0.2 |
| Montserrado | 449,910 | 2.5 | 2.1 | 0.4 | 94.1 | 0.9 |
| Nimba | 127,951 | 0.6 | 0.2 | 0.2 | 98.8 | 0.2 |
| River Cess | 21,087 | 0.0 | 0.1 | 0.0 | 99.6 | 0.2 |
| River Gee | 23,906 | 0.1 | 0.2 | 0.2 | 99.3 | 0.1 |
| Sinoe | 29,843 | 1.5 | 0.6 | 0.2 | 97.3 | 0.3 |
| **Total** | **1,187,272** | **1.4** | **1.0** | **0.3** | **96.9** | **0.5** |

**Appendix 5 continued: Household's Main Source of Cooking Fuel by Sex of Household Head, Type of Place and County of Residence**

| | Male | | | | | |
|---|---|---|---|---|---|---|
| | **Total** | **Electricity** | **Cooking Gas** | **Kerosine** | **Wood/ charcoal** | **Other** |
| Urban | 399,038 | 2.5 | 1.7 | 0.4 | 94.5 | 1.0 |
| Rural | 365,898 | 0.4 | 0.2 | 0.1 | 99.0 | 0.2 |
| **County of residence** | | | | | | |
| Bomi | 23,011 | 0.7 | 0.3 | 0.2 | 98.4 | 0.3 |
| Bong | 71,011 | 0.5 | 0.1 | 0.1 | 99.0 | 0.3 |
| Gbarpolu | 15,704 | 0.3 | 0.1 | 0.1 | 99.4 | 0.2 |
| Grand Bassa | 49,571 | 0.7 | 0.3 | 0.1 | 98.6 | 0.3 |
| Grand Cape Mount | 30,774 | 2.4 | 0.5 | 0.4 | 96.3 | 0.4 |
| Grand Gedeh | 30,421 | 0.8 | 0.3 | 0.2 | 98.2 | 0.5 |
| Grand Kru | 12,642 | 1.1 | 0.5 | 0.2 | 97.9 | 0.3 |
| Lofa | 44,667 | 0.5 | 0.1 | 0.1 | 99.1 | 0.2 |
| Margibi | 47,574 | 0.8 | 0.7 | 0.2 | 97.9 | 0.4 |
| Maryland | 21,976 | 1.6 | 0.8 | 0.1 | 97.3 | 0.3 |
| Montserrado | 283,633 | 2.6 | 2.2 | 0.4 | 93.6 | 1.1 |
| Nimba | 83,994 | 0.7 | 0.2 | 0.2 | 98.7 | 0.2 |
| River Cess | 15,186 | 0.0 | 0.1 | 0.0 | 99.6 | 0.2 |
| River Gee | 14,436 | 0.2 | 0.3 | 0.2 | 99.2 | 0.2 |
| Sinoe | 20,336 | 1.6 | 0.7 | 0.2 | 97.1 | 0.4 |
| **Total** | **764,936** | **1.5** | **1.0** | **0.3** | **96.6** | **0.6** |

**Appendix 5 continued: Household's Main Source of Cooking Fuel by Sex of Household Head, Type of Place and County of Residence**

| | Female | | | | | |
|---|---|---|---|---|---|---|
| | **Total** | **Electricity** | **Cooking Gas** | **Kerosine** | **Wood/ charcoal** | **Other** |
| Urban | 252,093 | 1.9 | 1.3 | 0.3 | 96.0 | 0.4 |
| Rural | 170,243 | 0.4 | 0.1 | 0.2 | 99.1 | 0.2 |
| **County of residence** | | | | | | |
| Total | 422,336 | 1.3 | 0.9 | 0.3 | 97.3 | 0.3 |
| Bomi | 15,580 | 0.6 | 0.2 | 0.2 | 98.7 | 0.3 |
| Bong | 39,088 | 0.2 | 0.1 | 0.2 | 99.4 | 0.2 |
| Gbarpolu | 6,707 | 0.2 | 0.1 | 0.2 | 99.3 | 0.1 |
| Grand Bassa | 19,716 | 0.5 | 0.2 | 0.1 | 98.9 | 0.3 |
| Grand Cape Mount | 14,396 | 1.8 | 0.2 | 0.3 | 97.4 | 0.3 |
| Grand Gedeh | 13,242 | 0.9 | 0.2 | 0.2 | 98.3 | 0.4 |
| Grand Kru | 7,962 | 0.9 | 0.1 | 0.1 | 98.7 | 0.2 |
| Lofa | 30,593 | 0.5 | 0.1 | 0.1 | 99.1 | 0.2 |
| Margibi | 24,702 | 0.6 | 0.6 | 0.2 | 98.4 | 0.2 |
| Maryland | 15,238 | 1.1 | 0.3 | 0.2 | 98.3 | 0.1 |
| Montserrado | 16,6277 | 2.4 | 1.9 | 0.4 | 94.9 | 0.5 |
| Nimba | 43,957 | 0.5 | 0.2 | 0.2 | 99.0 | 0.2 |
| River Cess | 5,901 | 0.1 | 0.1 | 0.0 | 99.8 | 0.1 |
| River Gee | 9,470 | 0.1 | 0.1 | 0.2 | 99.4 | 0.1 |
| Sinoe | 9,507 | 1.3 | 0.4 | 0.3 | 97.7 | 0.3 |
| **Total** | **422,336** | **1.3** | **0.9** | **0.3** | **97.3** | **0.3** |

**Appendix 6: Household's Main Source of Drinking Water by Sex of Household Head, Type of Place and County of Residence**

| | Total | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Total** | **Pipe** | **Closed Well/ Protected** | **Open Well** | **River lake spring creek** | **Water Vendors** | **Bottled water** | **Rainwater** | **Other** | **Sachet water** |
| Urban | 650,667 | 60.2 | 15.4 | 13.2 | 0.4 | 1.3 | 0.9 | 8.4 | 0.1 | 0.2 |
| Rural | 536,605 | 54.9 | 5.3 | 11.3 | 27.4 | 0.1 | 0.1 | 0.4 | 0.4 | 0.1 |
| **County of residence** | | | | | | | | | | |
| Bomi | 38,591 | 73.8 | 3.8 | 3.9 | 17.7 | 0.1 | 0.0 | 0.5 | 0.2 | 0.0 |
| Bong | 110,099 | 55.8 | 11.4 | 16.3 | 15.6 | 0.1 | 0.1 | 0.5 | 0.2 | 0.1 |
| Gbarpolu | 22,411 | 54.9 | 4.3 | 6.1 | 34.2 | 0.1 | 0.0 | 0.3 | 0.2 | 0.0 |
| Grand Bassa | 69,287 | 32.7 | 11.2 | 9.9 | 44.0 | 0.1 | 0.2 | 1.1 | 0.7 | 0.0 |
| Grand Cape Mount | 45,170 | 71.1 | 4.3 | 9.4 | 13.3 | 0.1 | 0.9 | 0.4 | 0.5 | 0.0 |
| Grand Gedeh | 43,663 | 65.9 | 7.6 | 11.4 | 13.6 | 0.1 | 0.1 | 0.6 | 0.7 | 0.1 |
| Grand Kru | 20,604 | 48.8 | 3.9 | 7.0 | 39.7 | 0.1 | 0.0 | 0.2 | 0.3 | 0.0 |
| Lofa | 75,260 | 62.1 | 6.8 | 14.5 | 16.1 | 0.1 | 0.0 | 0.1 | 0.2 | 0.1 |
| Margibi | 72,276 | 59.1 | 13.8 | 13.2 | 11.3 | 0.2 | 0.3 | 1.8 | 0.2 | 0.1 |
| Maryland | 37,214 | 76.4 | 4.9 | 7.0 | 10.6 | 0.1 | 0.1 | 0.8 | 0.1 | 0.0 |
| Montserrado | 449,910 | 56.1 | 14.9 | 12.3 | 1.9 | 1.8 | 1.1 | 11.6 | 0.2 | 0.2 |
| Nimba | 127,951 | 64.6 | 9.7 | 18.4 | 6.2 | 0.1 | 0.3 | 0.3 | 0.3 | 0.1 |
| River Cess | 21,087 | 36.1 | 1.1 | 2.8 | 59.6 | 0.1 | 0.0 | 0.2 | 0.1 | 0.0 |
| River Gee | 23,906 | 64.7 | 6.6 | 9.1 | 18.8 | 0.1 | 0.1 | 0.4 | 0.2 | 0.0 |
| Sinoe | 29,843 | 48.1 | 6.0 | 10.7 | 32.5 | 0.3 | 0.1 | 0.7 | 0.5 | 1.2 |
| **Total** | **1,187,272** | **57.8** | **10.8** | **12.3** | **12.6** | **0.7** | **0.5** | **4.8** | **0.3** | **0.2** |

**Appendix 6 continued: Household's Main Source of Drinking Water by Sex of Household Head, Type of Place and County of Residence**

| | Male headed households | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | **Total** | **Pipe** | **Closed Well/ Protected** | **Open Well** | **River lake spring creek** | **Water Vendors** | **Bottled water** | **Rain water** | **Other** | **Sachet water** |
| Urban | 398,621 | 59.8 | 15.3 | 12.9 | 0.5 | 1.3 | 1.1 | 8.8 | 0.1 | 0.2 |
| Rural | 366,315 | 53.4 | 5.3 | 11.4 | 28.9 | 0.1 | 0.1 | 0.4 | 0.4 | 0.1 |
| **County of residence** | | | | | | | | | | |
| Bomi | 23,011 | 72.3 | 4.1 | 3.9 | 18.7 | 0.1 | 0.0 | 0.6 | 0.2 | 0.1 |
| Bong | 71,011 | 54.2 | 10.7 | 16.6 | 17.4 | 0.1 | 0.1 | 0.5 | 0.2 | 0.1 |
| Gbarpolu | 15,704 | 53.3 | 4.2 | 6.1 | 35.8 | 0.1 | 0.0 | 0.3 | 0.1 | 0.0 |
| Grand Bassa | 49,571 | 32.3 | 9.7 | 8.6 | 47.3 | 0.1 | 0.2 | 1.0 | 0.7 | 0.0 |
| Grand Cape Mount | 30,774 | 70.0 | 4.4 | 9.5 | 13.9 | 0.1 | 1.1 | 0.4 | 0.5 | 0.1 |
| Grand Gedeh | 30,421 | 64.3 | 7.3 | 11.5 | 15.4 | 0.1 | 0.1 | 0.6 | 0.7 | 0.1 |
| Grand Kru | 12,642 | 46.6 | 4.2 | 7.1 | 41.5 | 0.1 | 0.0 | 0.2 | 0.3 | 0.0 |
| Lofa | 44,667 | 60.4 | 6.6 | 15.1 | 17.3 | 0.1 | 0.0 | 0.2 | 0.2 | 0.1 |
| Margibi | 47,574 | 59.0 | 13.4 | 12.8 | 12.1 | 0.2 | 0.3 | 1.9 | 0.2 | 0.1 |
| Maryland | 21,976 | 74.4 | 4.6 | 6.8 | 12.9 | 0.1 | 0.1 | 0.9 | 0.1 | 0.0 |
| Montserrado | 283,633 | 55.7 | 14.8 | 12.3 | 2.1 | 1.8 | 1.2 | 11.9 | 0.2 | 0.2 |
| Nimba | 83,994 | 64.7 | 9.2 | 18.0 | 6.9 | 0.1 | 0.4 | 0.3 | 0.3 | 0.1 |
| River Cess | 15,186 | 34.5 | 1.1 | 2.6 | 61.4 | 0.1 | 0.0 | 0.3 | 0.0 | 0.0 |
| River Gee | 14,436 | 61.7 | 5.9 | 8.5 | 23.2 | 0.1 | 0.1 | 0.4 | 0.2 | 0.0 |
| Sinoe | 20,336 | 46.8 | 5.6 | 9.8 | 35.0 | 0.4 | 0.1 | 0.7 | 0.5 | 1.2 |
| **Total** | **764,936** | **56.7** | **10.5** | **12.2** | **14.1** | **0.7** | **0.6** | **4.8** | **0.3** | **0.2** |

**Appendix 6 continued: Household's Main Source of Drinking Water by Sex of Household Head, Type of Place and County of Residence**

| | Female headed households | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Total** | **Pipe** | **Closed Well/ Protected** | **Open Well** | **River lake spring creek** | **Water Vendors** | **Bottled water** | **Rain water** | **Other** | **Sachet water** |
| Urban | 252,046 | 60.8 | 15.5 | 13.5 | 0.4 | 1.2 | 0.7 | 7.6 | 0.1 | 0.2 |
| Rural | 170,290 | 58.2 | 5.5 | 11.3 | 24.1 | 0.1 | 0.0 | 0.3 | 0.4 | 0.1 |
| **County of residence** | | | | | | | | | | |
| Bomi | 15,580 | 75.9 | 3.4 | 3.8 | 16.3 | 0.1 | 0.0 | 0.3 | 0.1 | 0.0 |
| Bong | 39,088 | 58.5 | 12.6 | 15.8 | 12.3 | 0.1 | 0.1 | 0.4 | 0.2 | 0.1 |
| Gbarpolu | 6,707 | 58.7 | 4.3 | 6.0 | 30.3 | 0.1 | 0.0 | 0.3 | 0.2 | 0.0 |
| Grand Bassa | 19,716 | 33.8 | 15.2 | 13.2 | 35.8 | 0.1 | 0.2 | 1.1 | 0.6 | 0.1 |
| Grand Cape Mount | 14,396 | 73.4 | 4.2 | 9.3 | 12.0 | 0.1 | 0.3 | 0.3 | 0.4 | 0.0 |
| Grand Gedeh | 13,242 | 69.7 | 8.3 | 11.2 | 9.5 | 0.1 | 0.0 | 0.5 | 0.5 | 0.1 |
| Grand Kru | 7,962 | 52.3 | 3.4 | 6.7 | 36.8 | 0.1 | 0.0 | 0.3 | 0.3 | 0.0 |
| Lofa | 30,593 | 64.6 | 7.0 | 13.6 | 14.3 | 0.1 | 0.0 | 0.1 | 0.2 | 0.1 |
| Margibi | 24,702 | 59.2 | 14.8 | 14.0 | 9.7 | 0.1 | 0.3 | 1.7 | 0.1 | 0.2 |
| Maryland | 15,238 | 79.3 | 5.4 | 7.3 | 7.2 | 0.0 | 0.0 | 0.6 | 0.2 | 0.0 |
| Montserrado | 166,277 | 56.8 | 15.0 | 12.5 | 1.6 | 1.7 | 1.0 | 11.0 | 0.2 | 0.2 |
| Nimba | 43,957 | 64.5 | 10.7 | 19.1 | 4.9 | 0.1 | 0.1 | 0.3 | 0.2 | 0.1 |
| River Cess | 5,901 | 40.1 | 1.3 | 3.3 | 55.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.0 |
| River Gee | 9,470 | 69.4 | 7.8 | 10.0 | 12.0 | 0.1 | 0.0 | 0.5 | 0.2 | 0.0 |
| Sinoe | 9,507 | 50.8 | 7.0 | 12.8 | 27.2 | 0.1 | 0.1 | 0.6 | 0.3 | 1.0 |
| **Total** | **422,336** | **59.7** | **11.5** | **12.6** | **10.0** | **0.7** | **0.4** | **4.7** | **0.2** | **0.2** |

**Appendix 7: Distance from the Household to the Nearest Primary School by Sex of Household Head and Type of Place of Residence**

| | Total | | | | |
|---|---|---|---|---|---|
| | **Number** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 651,131 | 59.5 | 27.1 | 8.9 | 4.5 |
| Rural | 536,141 | 47.7 | 21.8 | 10.0 | 20.5 |
| **County of residence** | | | | | |
| Bomi | 38,591 | 49.2 | 25.7 | 8.7 | 16.4 |
| Bong | 110,099 | 47.3 | 23.2 | 10.7 | 18.8 |
| Gbarpolu | 22,411 | 58.9 | 17.5 | 5.9 | 17.6 |
| Grand Bassa | 69,287 | 35.8 | 19.3 | 11.5 | 33.4 |
| Grand Cape Mount | 45,170 | 52.2 | 24.7 | 8.9 | 14.2 |
| Grand Gedeh | 43,663 | 47.8 | 26.8 | 9.6 | 15.7 |
| Grand Kru | 20,604 | 46.2 | 32.8 | 9.1 | 11.9 |
| Lofa | 75,260 | 52.3 | 24.3 | 10.6 | 12.8 |
| Margibi | 72,276 | 42.3 | 30.2 | 12.9 | 14.6 |
| Maryland | 37,214 | 48.2 | 30.2 | 13.2 | 8.4 |
| Montserrado | 449,910 | 62.4 | 24.3 | 8.1 | 5.2 |
| Nimba | 127,951 | 55.1 | 28.0 | 9.4 | 7.5 |
| River Cess | 21,087 | 55.8 | 13.7 | 5.7 | 24.8 |
| River Gee | 23,906 | 54.1 | 23.2 | 10.0 | 12.8 |
| Sinoe | 29,843 | 53.1 | 21.7 | 9.0 | 16.1 |
| **Total** | **1,187,272** | **54.2** | **24.7** | **9.4** | **11.7** |

**Appendix 7 continued: Distance from the Household to the Nearest Primary School by sex of Household Head and Type of Place of Residence**

|  | Male | | | | |
|---|---|---|---|---|---|
|  | **Number** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 399,038 | 59.9 | 26.9 | 8.7 | 4.5 |
| Rural | 365,898 | 46.7 | 21.2 | 10.1 | 22.0 |
| **County of residence** | | | | | |
| Bomi | 23,011 | 47.9 | 25.2 | 9.1 | 17.8 |
| Bong | 71,011 | 46.2 | 22.3 | 10.8 | 20.7 |
| Gbarpolu | 15,704 | 58.6 | 16.4 | 5.9 | 19.2 |
| Grand Bassa | 49,571 | 33.6 | 18.9 | 11.7 | 35.8 |
| Grand Cape Mount | 30,774 | 51.8 | 24.4 | 8.9 | 14.9 |
| Grand Gedeh | 30,421 | 47.0 | 26.1 | 9.6 | 17.2 |
| Grand Kru | 12,642 | 45.5 | 31.8 | 8.7 | 14.0 |
| Lofa | 44,667 | 51.0 | 23.7 | 11.0 | 14.3 |
| Margibi | 47,574 | 41.2 | 29.7 | 13.2 | 15.9 |
| Maryland | 21,976 | 50.6 | 28.7 | 12.4 | 8.3 |
| Montserrado | 283,633 | 62.3 | 24.2 | 8.1 | 5.4 |
| Nimba | 83,994 | 55.9 | 27.3 | 9.2 | 7.7 |
| River Cess | 15,186 | 54.2 | 13.5 | 5.8 | 26.5 |
| River Gee | 14,436 | 53.9 | 22.2 | 9.6 | 14.3 |
| Sinoe | 20,336 | 53.7 | 20.1 | 8.6 | 17.6 |
| **Total** | **764,936** | **53.6** | **24.2** | **9.4** | **12.8** |

**Appendix 7 continued: Distance from the Household to the Nearest Primary School by sex of Household Head and Type of Place of Residence**

| | Female | | | | |
|---|---|---|---|---|---|
| | **Number** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 252,093 | 58.9 | 27.4 | 9.1 | 4.6 |
| Rural | 170,243 | 49.8 | 23.2 | 9.8 | 17.2 |
| **County of residence** | | | | | |
| Bomi | 15,580 | 51.1 | 26.5 | 8.3 | 14.2 |
| Bong | 39,088 | 49.4 | 24.6 | 10.7 | 15.3 |
| Gbarpolu | 6,707 | 59.7 | 20.2 | 6.0 | 14.1 |
| Grand Bassa | 19,716 | 41.4 | 20.2 | 11.1 | 27.3 |
| Grand Cape Mount | 14,396 | 53.2 | 25.2 | 9.0 | 12.6 |
| Grand Gedeh | 13,242 | 49.7 | 28.5 | 9.6 | 12.1 |
| Grand Kru | 7,962 | 47.4 | 34.4 | 9.6 | 8.6 |
| Lofa | 30,593 | 54.1 | 25.2 | 10.1 | 10.6 |
| Margibi | 24,702 | 44.3 | 31.2 | 12.4 | 12.1 |
| Maryland | 15,238 | 44.8 | 32.4 | 14.3 | 8.5 |
| Montserrado | 166,277 | 62.7 | 24.4 | 8.0 | 4.9 |
| Nimba | 43,957 | 53.7 | 29.3 | 9.9 | 7.1 |
| River Cess | 5,901 | 59.9 | 14.1 | 5.4 | 20.6 |
| River Gee | 9,470 | 54.4 | 24.7 | 10.5 | 10.4 |
| Sinoe | 9507 | 51.9 | 25.1 | 10.0 | 13.0 |
| **Total** | **422,336** | **55.2** | **25.7** | **9.4** | **9.7** |

**Appendix 8: Distance from the Household to the Nearest Health Facility by Sex of Household Head and Type of Place of Residence**

| | Total | | | | |
|---|---|---|---|---|---|
| | **Number** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 651,131 | 51.1 | 26.1 | 11.1 | 11.7 |
| Rural | 536,141 | 25.4 | 13.7 | 9.5 | 51.4 |
| **County of residence** | | | | | |
| Bomi | 38,591 | 28.6 | 18.0 | 10.7 | 42.7 |
| Bong | 110,099 | 28.4 | 17.7 | 11.0 | 42.8 |
| Gbarpolu | 22,411 | 32.4 | 10.2 | 6.8 | 50.7 |
| Grand Bassa | 69,287 | 26.2 | 14.0 | 9.3 | 50.5 |
| Grand Cape Mount | 45,170 | 36.2 | 17.6 | 9.0 | 37.1 |
| Grand Gedeh | 43,663 | 30.8 | 21.2 | 11.6 | 36.3 |
| Grand Kru | 20,604 | 30.7 | 20.3 | 8.7 | 40.3 |
| Lofa | 75,260 | 33.1 | 16.2 | 11.2 | 39.5 |
| Margibi | 72,276 | 33.9 | 24.0 | 13.1 | 29.0 |
| Maryland | 37,214 | 30.8 | 22.0 | 16.3 | 30.9 |
| Montserrado | 449,910 | 54.1 | 24.1 | 9.4 | 12.4 |
| Nimba | 127,951 | 26.9 | 20.8 | 11.6 | 40.7 |
| River Cess | 21,087 | 25.6 | 7.4 | 7.3 | 59.7 |
| River Gee | 23,906 | 33.9 | 18.2 | 10.8 | 37.1 |
| Sinoe | 29,843 | 42.8 | 16.7 | 8.3 | 32.2 |
| **Total** | **1,187,272** | **39.5** | **20.5** | **10.3** | **29.7** |

**Appendix 8 continued: Distance from the Household to the Nearest Health Facility by Sex of Household Head and Type of Place of Residence**

| | Male | | | | |
|---|---|---|---|---|---|
| | **Number** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 399,038 | 51.5 | 26.0 | 10.9 | 11.6 |
| Rural | 365,898 | 24.6 | 13.2 | 9.4 | 52.9 |
| **County of residence** | | | | | |
| Bomi | 23,011 | 27.7 | 17.4 | 11.0 | 43.9 |
| Bong | 71,011 | 27.6 | 16.8 | 10.4 | 45.2 |
| Gbarpolu | 15,704 | 31.6 | 9.5 | 6.5 | 52.4 |
| Grand Bassa | 49,571 | 24.6 | 13.4 | 9.2 | 52.9 |
| Grand Cape Mount | 30,774 | 36.0 | 17.6 | 8.9 | 37.5 |
| Grand Gedeh | 30,421 | 29.9 | 20.3 | 11.3 | 38.5 |
| Grand Kru | 12,642 | 29.5 | 19.3 | 8.0 | 43.1 |
| Lofa | 44,667 | 31.9 | 15.9 | 11.3 | 40.9 |
| Margibi | 47,574 | 32.7 | 23.3 | 12.9 | 31.0 |
| Maryland | 21,976 | 32.6 | 21.4 | 15.0 | 31.0 |
| Montserrado | 283,633 | 53.8 | 24.0 | 9.4 | 12.8 |
| Nimba | 83,994 | 26.0 | 19.7 | 11.6 | 42.8 |
| River Cess | 15,186 | 24.2 | 7.1 | 6.8 | 61.9 |
| River Gee | 14,436 | 32.0 | 16.8 | 10.5 | 40.7 |
| Sinoe | 20,336 | 42.0 | 15.2 | 7.9 | 34.9 |
| **Total** | **764,936** | **38.6** | **19.9** | **10.2** | **31.3** |

**Appendix 8 continued: Distance from the Household to the Nearest Health Facility by Sex of Household Head and Type of Place of Residence**

| | Female | | | | |
|---|---|---|---|---|---|
| | **Number** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 252,093 | 50.5 | 26.3 | 11.3 | 11.9 |
| Rural | 170,243 | 27.2 | 14.8 | 9.7 | 48.4 |
| **County of residence** | | | | | |
| Bomi | 15,580 | 30.0 | 18.9 | 10.2 | 40.9 |
| Bong | 39,088 | 30.0 | 19.4 | 12.1 | 38.6 |
| Gbarpolu | 6,707 | 34.1 | 12.0 | 7.4 | 46.6 |
| Grand Bassa | 19,716 | 30.2 | 15.7 | 9.7 | 44.4 |
| Grand Cape Mount | 14396 | 36.7 | 17.7 | 9.2 | 36.4 |
| Grand Gedeh | 13,242 | 33.0 | 23.3 | 12.3 | 31.5 |
| Grand Kru | 7,962 | 32.6 | 21.8 | 9.8 | 35.8 |
| Lofa | 30,593 | 34.8 | 16.7 | 11.0 | 37.6 |
| Margibi | 24,702 | 36.1 | 25.4 | 13.3 | 25.2 |
| Maryland | 15,238 | 28.1 | 23.0 | 18.0 | 30.8 |
| Montserrado | 166,277 | 54.7 | 24.2 | 9.4 | 11.7 |
| Nimba | 43,957 | 28.6 | 23.0 | 11.7 | 36.7 |
| River Cess | 5,901 | 29.3 | 8.2 | 8.5 | 53.9 |
| River Gee | 9,470 | 36.7 | 20.4 | 11.1 | 31.8 |
| Sinoe | 9,507 | 44.7 | 19.7 | 9.0 | 26.6 |
| **Total** | **422,336** | **41.1** | **21.6** | **10.7** | **26.6** |

**Appendix 9: Distance from the Household to the Nearest Water Source by Sex of Household Head and Type of Place of Residence**

| | Total | | | | | |
|---|---|---|---|---|---|---|
| | **Number** | **Water at home** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 651,131 | 18.5 | 68.4 | 9.0 | 2.6 | 1.5 |
| Rural | 536,141 | 7.9 | 73.6 | 12.2 | 3.3 | 3.1 |
| **County of residence** | | | | | | |
| Bomi | 38,591 | 9.9 | 76.1 | 8.3 | 3.5 | 2.2 |
| Bong | 110,099 | 8.8 | 75.2 | 11.1 | 2.7 | 2.3 |
| Gbarpolu | 22,411 | 6.3 | 76.2 | 13.0 | 2.7 | 1.9 |
| Grand Bassa | 69,287 | 14.6 | 69.0 | 9.4 | 2.5 | 4.5 |
| Grand Cape Mount | 45,170 | 10.7 | 70.6 | 11.4 | 4.4 | 2.9 |
| Grand Gedeh | 43,663 | 9.6 | 72.3 | 12.9 | 3.1 | 2.1 |
| Grand Kru | 20604 | 5.6 | 70.4 | 17.0 | 4.1 | 2.9 |
| Lofa | 75,260 | 7.5 | 73.7 | 13.0 | 3.5 | 2.3 |
| Margibi | 72,276 | 15.0 | 68.6 | 10.5 | 3.2 | 2.7 |
| Maryland | 37,214 | 7.0 | 74.6 | 12.3 | 3.2 | 2.9 |
| Montserrado | 449,910 | 19.9 | 67.3 | 8.6 | 2.4 | 1.7 |
| Nimba | 127,951 | 9.2 | 72.5 | 13.0 | 3.4 | 1.9 |
| River Cess | 21,087 | 4.6 | 86.6 | 5.8 | 0.7 | 2.4 |
| River Gee | 23,906 | 7.8 | 75.2 | 12.0 | 2.7 | 2.3 |
| Sinoe | 29,843 | 12.9 | 68.5 | 11.8 | 3.9 | 3.0 |
| **Total** | **1,187,272** | **13.7** | **70.8** | **10.4** | **2.9** | **2.2** |

**Appendix 9 continued: Distance from the Household to the Nearest Water Source by Sex of Household Head and Type of Place of Residence**

| | Male | | | | | |
|---|---|---|---|---|---|---|
| | **Number** | **Water at home** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 399,038 | 19.2 | 67.9 | 8.8 | 2.5 | 1.5 |
| Rural | 365,898 | 8.0 | 73.2 | 12.2 | 3.3 | 3.3 |
| **County of residence** | | | | | | |
| Bomi | 23,011 | 10.2 | 75.2 | 8.6 | 3.8 | 2.2 |
| Bong | 71,011 | 8.8 | 74.9 | 11.1 | 2.6 | 2.6 |
| Gbarpolu | 15,704 | 6.3 | 76.3 | 12.9 | 2.6 | 1.9 |
| Grand Bassa | 49,571 | 13.5 | 69.6 | 9.7 | 2.6 | 4.6 |
| Grand Cape Mount | 30,774 | 10.9 | 70.2 | 11.6 | 4.4 | 2.9 |
| Grand Gedeh | 30,421 | 9.3 | 71.9 | 13.1 | 3.3 | 2.4 |
| Grand Kru | 12,642 | 5.9 | 69.3 | 17.1 | 4.2 | 3.5 |
| Lofa | 44,667 | 7.9 | 72.7 | 13.2 | 3.6 | 2.6 |
| Margibi | 47,574 | 15.6 | 67.8 | 10.4 | 3.3 | 2.8 |
| Maryland | 21,976 | 7.6 | 74.1 | 12.2 | 3.0 | 3.1 |
| Montserrado | 283,633 | 20.3 | 67.1 | 8.5 | 2.4 | 1.7 |
| Nimba | 83,994 | 9.4 | 72.3 | 13.1 | 3.3 | 1.9 |
| River Cess | 15,186 | 4.7 | 86.4 | 5.7 | 0.7 | 2.5 |
| River Gee | 14,436 | 7.8 | 74.8 | 12.3 | 2.9 | 2.2 |
| Sinoe | 20,336 | 13.2 | 67.9 | 11.6 | 4.0 | 3.3 |
| **Total** | **764,936** | **13.8** | **70.5** | **10.5** | **2.9** | **2.4** |

**Appendix 9 continued: Distance from the Household to the Nearest Water Source by Sex of Household Head and Type of Place of Residence**

| | Female | | | | | |
|---|---|---|---|---|---|---|
| | **Number** | **Water at home** | **Less than 20 mins** | **20 to 39 mins** | **40 to 59 mins** | **1 hour or over** |
| Urban | 252,093 | 17.4 | 69.2 | 9.2 | 2.6 | 1.5 |
| Rural | 170,243 | 7.5 | 74.4 | 12.0 | 3.3 | 2.7 |
| **County of residence** | | | | | | |
| Bomi | 15,580 | 9.5 | 77.5 | 7.8 | 3.1 | 2.1 |
| Bong | 39,088 | 8.7 | 75.7 | 11.0 | 2.7 | 1.8 |
| Gbarpolu | 6,707 | 6.2 | 75.8 | 13.3 | 2.8 | 1.8 |
| Grand Bassa | 19,716 | 17.4 | 67.4 | 8.7 | 2.4 | 4.0 |
| Grand Cape Mount | 14,396 | 10.5 | 71.5 | 10.8 | 4.4 | 2.7 |
| Grand Gedeh | 13,242 | 10.3 | 73.1 | 12.5 | 2.7 | 1.5 |
| Grand Kru | 7,962 | 5.1 | 72.3 | 16.7 | 3.8 | 2.1 |
| Lofa | 30,593 | 7.0 | 75.0 | 12.8 | 3.3 | 1.9 |
| Margibi | 24,702 | 14.0 | 70.0 | 10.7 | 3.1 | 2.3 |
| Maryland | 15,238 | 6.1 | 75.4 | 12.5 | 3.3 | 2.6 |
| Montserrado | 166,277 | 19.3 | 67.8 | 8.7 | 2.5 | 1.7 |
| Nimba | 43,957 | 8.9 | 72.8 | 12.8 | 3.6 | 1.9 |
| River Cess | 5,901 | 4.5 | 87.0 | 5.9 | 0.6 | 1.9 |
| River Gee | 9,470 | 7.6 | 75.9 | 11.6 | 2.4 | 2.5 |
| Sinoe | 9,507 | 12.1 | 69.8 | 12.2 | 3.8 | 2.2 |
| **Total** | **422,336** | **13.4** | **71.3** | **10.4** | **2.9** | **2.0** |

## Appendix 10: Migrant Population by Sex and Age Group

| Age group | Migrant | | | Non-migrant | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 0-4 | 49.5 | 50.5 | 98,712 | 49.4 | 50.6 | 436,018 | 49.4 | 50.6 | 534,730 |
| 5-9 | 47.7 | 52.3 | 12,6320 | 50.3 | 49.7 | 47,3992 | 49.7 | 50.3 | 600,312 |
| 10-14 | 46.6 | 53.4 | 157,273 | 51.2 | 48.8 | 461,248 | 50.1 | 49.9 | 618,521 |
| 15-19 | 48.0 | 52.0 | 179,981 | 50.0 | 50.0 | 442,195 | 49.4 | 50.6 | 622,176 |
| 20-24 | 48.3 | 51.7 | 194,585 | 49.2 | 50.8 | 384,101 | 48.9 | 51.1 | 578,686 |
| 25-29 | 47.6 | 52.4 | 161,671 | 48.4 | 51.6 | 261,104 | 48.1 | 51.9 | 422,775 |
| 30-34 | 49.9 | 50.1 | 167,734 | 49.4 | 50.6 | 251,428 | 49.6 | 50.4 | 419,162 |
| 35-39 | 51.3 | 48.7 | 132,403 | 48.8 | 51.2 | 191,356 | 49.8 | 50.2 | 323,759 |
| 40-44 | 55.8 | 44.2 | 121,062 | 53.0 | 47.0 | 177,547 | 54.1 | 45.9 | 298,609 |
| 45-49 | 54.7 | 45.3 | 72,481 | 52.2 | 47.8 | 106,057 | 53.2 | 46.8 | 178,538 |
| 50-54 | 55.4 | 44.6 | 67,387 | 53.7 | 46.3 | 100,478 | 54.4 | 45.6 | 167,865 |
| 55-59 | 53.9 | 46.1 | 35,759 | 53.5 | 46.5 | 50,116 | 53.7 | 46.3 | 85,875 |
| 60-64 | 54.1 | 45.9 | 33,163 | 52.9 | 47.1 | 52,660 | 53.4 | 46.6 | 85,823 |
| 65-69 | 54.0 | 46.0 | 18,673 | 53.2 | 46.8 | 28,441 | 53.5 | 46.5 | 47,114 |
| 70-74 | 51.0 | 49.0 | 14,288 | 50.4 | 49.6 | 25,717 | 50.6 | 49.4 | 40,005 |
| 75-79 | 49.3 | 50.7 | 6,530 | 48.6 | 51.4 | 12,340 | 48.9 | 51.1 | 18,870 |
| 80+ | 45.1 | 54.9 | 12,318 | 45.1 | 54.9 | 23,953 | 45.1 | 54.9 | 36,271 |
| **Total** | **49.9** | **50.1** | **1,600,340** | **50.2** | **49.8** | **3,478,751** | **50.1** | **49.9** | **5,079,091** |

## Appendix 11: Literate Population by Gender and Place and County of Residence

| | Male | | | Female | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number | %Literate | Total | Number | %Literate | Total | Number | %Literate | Total |
| Urban | 935,846 | 73.5 | 1,273,639 | 858,898 | 65.4 | 1,312,438 | 1,794,744 | 69.4 | 2,586,077 |
| Rural | 535,129 | 48.7 | 1,098656 | 376,287 | 37.1 | 1,015502 | 911,416 | 43.1 | 2,114158 |
| **County of residence** | | | | | | | | | |
| Bomi | 33,526 | 54.9 | 61,023 | 25,308 | 43.8 | 57,757 | 58,834 | 49.5 | 118,780 |
| Bong | 97,343 | 46.6 | 209,045 | 74,032 | 36.1 | 205,156 | 171,375 | 41.4 | 414,201 |
| Gbarpolu | 21,939 | 47.9 | 45,847 | 13,769 | 34.7 | 39,697 | 35,708 | 41.7 | 85,544 |
| Grand Bassa | 59,899 | 45.1 | 132,820 | 44,623 | 35.6 | 125,348 | 104,522 | 40.5 | 258,168 |
| Grand Cape Mount | 39,028 | 44.3 | 88,118 | 26,892 | 36.5 | 73,630 | 65,920 | 40.8 | 161,748 |
| Grand Gedeh | 62,631 | 58.8 | 106,579 | 47,416 | 51.2 | 92,527 | 110,047 | 55.3 | 199,106 |
| Grand Kru | 30,746 | 59.4 | 51,796 | 21,744 | 46.4 | 46,816 | 52,490 | 53.2 | 98,612 |
| Lofa | 87,425 | 52.9 | 165,162 | 67,352 | 40.8 | 165,269 | 154,777 | 46.8 | 330,431 |
| Margibi | 83,872 | 61.4 | 136,695 | 70,170 | 51.5 | 136,319 | 154,042 | 56.4 | 273,014 |
| Maryland | 49,632 | 63.0 | 78,758 | 40,652 | 52.5 | 77,440 | 90,284 | 57.8 | 156,198 |
| Montserrado | 645,078 | 75.7 | 852,179 | 602,713 | 68.1 | 88,5211 | 1,247,791 | 71.8 | 1,737,390 |
| Nimba | 164,121 | 60.5 | 271,387 | 135,060 | 50.2 | 268,836 | 299,181 | 55.4 | 540,223 |
| River Cess | 22,237 | 52.9 | 42,023 | 13,867 | 37.1 | 37,337 | 36,104 | 45.5 | 79,360 |
| River Gee | 35,259 | 59.3 | 59,474 | 24,979 | 47.2 | 52,895 | 60,238 | 53.6 | 112,369 |
| Sinoe | 38,239 | 53.6 | 71,389 | 26,608 | 41.8 | 63,702 | 64847 | 48.0 | 135091 |
| **Total** | **1,470,975** | **62.0** | **2,372,295** | **1,235,185** | **53.1** | **2,327,940** | **2,706,160** | **57.6** | **4,700,235** |

## Appendix 12: School Attendance by Sex and Place and County of Residence

| | Males | | | | | Females | | | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Never attend-ed | Com-pleted | Drop-out | Currently attending | Total | Never attend-ed | Com-pleted | Drop-out | Currently attending | Total | Never attend-ed | Com-pleted | Drop-out | Currently attending | Total |
| Urban | 18.5 | 28.7 | 11.9 | 40.8 | 1,335,625 | 25.8 | 19.8 | 12.9 | 41.5 | 1,377,839 | 22.2 | 24.2 | 12.4 | 41.2 | 2,713,464 |
| Rural | 44.1 | 11.6 | 16.7 | 27.6 | 1,161,913 | 55.5 | 5.6 | 12.6 | 26.3 | 1,079,850 | 49.6 | 8.7 | 14.7 | 27.0 | 2,241,763 |
| **County of residence** | | | | | | | | | | | | | | | |
| Bomi | 35.8 | 13.9 | 16.3 | 34.0 | 64,439 | 47.4 | 7.0 | 13.6 | 32.1 | 61,233 | 41.5 | 10.5 | 15.0 | 33.0 | 125,672 |
| Bong | 47.8 | 12.9 | 13.8 | 25.5 | 221,012 | 58.3 | 6.9 | 10.6 | 24.2 | 21,7844 | 53.0 | 9.9 | 12.2 | 24.9 | 438,856 |
| Gbarpolu | 44.3 | 11.7 | 18.9 | 25.1 | 48,331 | 56.8 | 4.5 | 13.8 | 25.0 | 42,149 | 50.1 | 8.3 | 16.5 | 25.0 | 90,480 |
| Grand Bassa | 49.9 | 11.6 | 15.2 | 23.3 | 140,690 | 59.5 | 5.8 | 11.5 | 23.2 | 133,486 | 54.6 | 8.8 | 13.4 | 23.3 | 274,176 |
| Grand Cape Mount | 47.3 | 14.8 | 13.2 | 24.7 | 92,469 | 53.9 | 7.7 | 11.9 | 26.4 | 77,888 | 50.4 | 11.6 | 12.6 | 25.5 | 170,357 |
| Grand Gedeh | 33.1 | 18.1 | 17.1 | 31.7 | 111,011 | 39.6 | 11.4 | 14.9 | 34.0 | 97,058 | 36.2 | 15.0 | 16.1 | 32.8 | 208,069 |
| Grand Kru | 34.1 | 16.9 | 16.8 | 32.2 | 54,285 | 46.5 | 7.8 | 13.4 | 32.4 | 49,472 | 40.0 | 12.6 | 15.2 | 32.3 | 103,757 |
| Lofa | 40.7 | 12.7 | 10.7 | 35.9 | 174,108 | 52.7 | 5.8 | 9.0 | 32.6 | 174,891 | 46.7 | 9.2 | 9.8 | 34.2 | 348,999 |
| Margibi | 29.6 | 20.5 | 14.6 | 35.4 | 144,012 | 39.0 | 12.6 | 13.4 | 35.1 | 143,657 | 34.3 | 16.5 | 14.0 | 35.2 | 287,669 |
| Maryland | 28.3 | 16.1 | 16.1 | 39.4 | 82,684 | 38.5 | 9.1 | 13.2 | 39.2 | 81,610 | 33.4 | 12.6 | 14.7 | 39.3 | 164,294 |
| Montser-rado | 16.2 | 31.9 | 12.0 | 39.8 | 892,698 | 23.0 | 23.0 | 13.0 | 41.0 | 927,701 | 19.7 | 27.4 | 12.5 | 40.4 | 1,820,399 |
| Nimba | 31.7 | 14.5 | 15.6 | 38.2 | 289,888 | 41.4 | 8.2 | 13.8 | 36.6 | 287,656 | 36.5 | 11.4 | 14.7 | 37.4 | 577,544 |
| River Cess | 41.1 | 9.3 | 24.0 | 25.6 | 44,601 | 56.6 | 3.8 | 15.6 | 24.0 | 39,794 | 48.4 | 6.7 | 20.1 | 24.8 | 84,395 |
| River Gee | 34.6 | 14.1 | 19.7 | 31.6 | 62,235 | 46.0 | 6.4 | 16.0 | 31.6 | 55,796 | 40.0 | 10.5 | 17.9 | 31.6 | 118,031 |
| Sinoe | 35.9 | 16.1 | 17.5 | 30.5 | 75,075 | 47.7 | 7.8 | 13.7 | 30.7 | 67,454 | 41.5 | 12.2 | 15.7 | 30.6 | 142,529 |
| **Total** | **30.4** | **20.8** | **14.2** | **34.6** | **2,497,538** | **38.9** | **13.5** | **12.8** | **34.8** | **2,457,689** | **34.6** | **17.2** | **13.5** | **34.7** | **4,955,227** |

## Appendix 13: Highest Level of Education Completed, by Gender, Place and County of Residence

| | Male | | | | | | |
|---|---|---|---|---|---|---|---|
| | **None** | **Preschool** | **Primary** | **Secondary** | **University** | **Other tertiary** | **Total** |
| Urban | 21.0 | 11.8 | 24.5 | 33.6 | 8.7 | 0.4 | 1,335,625 |
| Rural | 46.1 | 10.8 | 23.6 | 17.6 | 1.7 | 0.1 | 1,161,913 |
| **County of residence** | | | | | | | |
| Bomi | 38.4 | 12.1 | 24.9 | 21.2 | 3.1 | 0.2 | 64,439 |
| Bong | 49.9 | 11.4 | 19.9 | 16.2 | 2.5 | 0.1 | 221,012 |
| Gbarpolu | 46.2 | 8.7 | 23.8 | 19.0 | 2.0 | 0.2 | 48331 |
| Grand Bassa | 51.7 | 8.8 | 20.2 | 16.6 | 2.6 | 0.1 | 140,690 |
| Grand Cape Mount | 49.3 | 7.1 | 19.5 | 20.5 | 3.3 | 0.3 | 92,469 |
| Grand Gedeh | 34.8 | 9.4 | 24.9 | 28.3 | 2.5 | 0.2 | 111,011 |
| Grand Kru | 36.7 | 11.8 | 27.3 | 22.5 | 1.7 | 0.1 | 54,285 |
| Lofa | 42.9 | 10.1 | 24.8 | 19.6 | 2.3 | 0.3 | 174,108 |
| Margibi | 32.5 | 10.6 | 25.6 | 26.0 | 5.1 | 0.2 | 144,012 |
| Maryland | 30.8 | 11.8 | 27.2 | 25.9 | 4.0 | 0.3 | 82,684 |
| Montserrado | 18.5 | 11.2 | 24.0 | 35.5 | 10.3 | 0.5 | 892,698 |
| Nimba | 34.5 | 15.9 | 26.1 | 20.8 | 2.6 | 0.1 | 289,888 |
| River Cess | 43.0 | 13.2 | 25.4 | 16.7 | 1.6 | 0.1 | 44,601 |
| River Gee | 36.8 | 12.5 | 25.8 | 23.3 | 1.6 | 0.1 | 62,235 |
| Sinoe | 38.0 | 9.6 | 27.3 | 22.8 | 2.1 | 0.1 | 75,075 |
| **Total** | **32.7** | **11.3** | **24.1** | **26.2** | **5.4** | **0.3** | **2,497,538** |

**Appendix 13 continued: Highest Level of Education Completed, by Gender, Place and County of Residence**

| | Female | | | | | | |
|---|---|---|---|---|---|---|---|
| | **None** | **Preschool** | **Primary** | **Secondary** | **University** | **Other tertiary** | **Total** |
| Urban | 28.5 | 12.5 | 26.2 | 28.1 | 4.5 | 0.3 | 1,377,839 |
| Rural | 57.6 | 10.9 | 21.0 | 9.9 | 0.6 | 0.0 | 1,079,850 |
| **County of residence** | | | | | | | |
| Bomi | 50.1 | 11.4 | 22.9 | 14.2 | 1.4 | 0.1 | 61,233 |
| Bong | 60.4 | 11.4 | 17.2 | 10.0 | 1.0 | 0.0 | 217,844 |
| Gbarpolu | 58.7 | 9.0 | 22.0 | 9.5 | 0.7 | 0.1 | 42,149 |
| Grand Bassa | 61.4 | 9.0 | 17.7 | 10.9 | 1.0 | 0.0 | 133,486 |
| Grand Cape Mount | 55.9 | 8.5 | 20.2 | 14.2 | 1.1 | 0.1 | 77,888 |
| Grand Gedeh | 41.4 | 10.7 | 26.4 | 20.4 | 1.0 | 0.1 | 97,058 |
| Grand Kru | 49.3 | 12.2 | 25.5 | 12.6 | 0.4 | 0.0 | 49,472 |
| Lofa | 54.8 | 10.0 | 22.5 | 11.8 | 0.7 | 0.1 | 174,891 |
| Margibi | 42.0 | 11.1 | 25.5 | 18.9 | 2.3 | 0.1 | 143,657 |
| Maryland | 41.0 | 12.3 | 26.2 | 18.8 | 1.7 | 0.1 | 81,610 |
| Montserrado | 25.5 | 11.8 | 26.0 | 30.7 | 5.7 | 0.3 | 927,701 |
| Nimba | 44.1 | 16.1 | 25.0 | 13.9 | 1.0 | 0.0 | 287,656 |
| River Cess | 58.4 | 12.7 | 20.1 | 8.2 | 0.6 | 0.0 | 39,794 |
| River Gee | 48.5 | 13.2 | 24.7 | 13.1 | 0.4 | 0.0 | 55,796 |
| Sinoe | 49.8 | 9.9 | 26.7 | 13.0 | 0.6 | 0.0 | 67,454 |
| **Total** | **41.3** | **11.8** | **23.9** | **20.1** | **2.8** | **0.2** | **2,457,689** |

## Appendix 13 continued: Highest Level of Education Completed, by Gender, Place and County of Residence

| | Total | | | | | | |
|---|---|---|---|---|---|---|---|
| | **None** | **Preschool** | **Primary** | **Secondary** | **University** | **Other tertiary** | **Total** |
| Urban | 24.8 | 12.1 | 25.4 | 30.8 | 6.6 | 0.3 | 2,713,464 |
| Rural | 51.6 | 10.8 | 22.3 | 13.9 | 1.2 | 0.1 | 2,241,763 |
| **County of residence** | | | | | | | |
| Bomi | 44.1 | 11.7 | 23.9 | 17.8 | 2.2 | 0.2 | 125,672 |
| Bong | 55.1 | 11.4 | 18.6 | 13.1 | 1.7 | 0.1 | 438,856 |
| Gbarpolu | 52.0 | 8.8 | 23.0 | 14.6 | 1.4 | 0.2 | 90,480 |
| Grand Bassa | 56.4 | 8.9 | 18.9 | 13.8 | 1.8 | 0.1 | 274,176 |
| Grand Cape Mount | 52.3 | 7.8 | 19.9 | 17.6 | 2.3 | 0.2 | 170,357 |
| Grand Gedeh | 37.9 | 10.0 | 25.6 | 24.6 | 1.8 | 0.1 | 208,069 |
| Grand Kru | 42.7 | 12.0 | 26.4 | 17.8 | 1.1 | 0.1 | 103,757 |
| Lofa | 48.9 | 10.1 | 23.7 | 15.7 | 1.5 | 0.2 | 348,999 |
| Margibi | 37.2 | 10.9 | 25.5 | 22.5 | 3.7 | 0.2 | 287,669 |
| Maryland | 35.9 | 12.0 | 26.7 | 22.3 | 2.9 | 0.2 | 164,294 |
| Montserrado | 22.1 | 11.5 | 25.0 | 33.1 | 7.9 | 0.4 | 1,820,399 |
| Nimba | 39.3 | 16.0 | 25.6 | 17.4 | 1.8 | 0.1 | 577,544 |
| River Cess | 50.3 | 13.0 | 22.9 | 12.7 | 1.1 | 0.1 | 84,395 |
| River Gee | 42.3 | 12.8 | 25.3 | 18.5 | 1.0 | 0.0 | 118,031 |
| Sinoe | 43.6 | 9.8 | 27.0 | 18.2 | 1.4 | 0.1 | 142,529 |
| **Total** | **36.9** | **11.5** | **24.0** | **23.2** | **4.1** | **0.2** | **4,955,227** |

**Appendix 14: Percent of Agricultural Households by Sex of Household Head, Place and County of Residence**

| County of Residence | Total | | Male headed households | | Female headed households | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| Bomi | 38,591 | 32.0 | 23,011 | 36.0 | 15,580 | 26.1 |
| Bong | 110,099 | 47.2 | 71,011 | 50.6 | 39,088 | 40.9 |
| Gbarpolu | 22,411 | 47.6 | 15,704 | 50.1 | 6,707 | 41.8 |
| Grand Bassa | 69,287 | 40.1 | 49,571 | 44.1 | 19,716 | 30.1 |
| Grand Cape Mount | 45,170 | 29.1 | 30,774 | 30.8 | 14,396 | 25.6 |
| Grand Gedeh | 43,663 | 44.4 | 30,421 | 47.2 | 13,242 | 38.0 |
| Grand Kru | 20,604 | 40.4 | 12,642 | 41.5 | 7,962 | 38.7 |
| Lofa | 75,260 | 71.5 | 44,667 | 73.8 | 30,593 | 68.2 |
| Margibi | 72,276 | 21.0 | 47,574 | 22.4 | 24,702 | 18.2 |
| Maryland | 37,214 | 26.6 | 21976 | 30.8 | 15,238 | 20.5 |
| Montserrado | 449,910 | 8.3 | 283,633 | 8.9 | 166,277 | 7.3 |
| Nimba | 127,951 | 54.8 | 83,994 | 59.8 | 43,957 | 45.2 |
| River Cess | 21,087 | 51.1 | 15,186 | 55.8 | 5,901 | 39.3 |
| River Gee | 23,906 | 40.2 | 14,436 | 43.3 | 9,470 | 35.5 |
| Sinoe | 29,843 | 29.0 | 20,336 | 31.2 | 9,507 | 24.4 |
| Total | 1,187272 | 30.2 | 764,936 | 32.7 | 422,336 | 25.8 |
| River Gee | 35,259 | 59,474 | 24,979 | 52,895 | 60,238 | 112,369 |
| Sinoe | 38,239 | 71,389 | 26,608 | 63,702 | 64847 | 135091 |
| **Total** | **1,470,975** | **2,372,295** | **1,235,185** | **2,327,940** | **2,706,160** | **4,700,235** |

## Appendix 15: Gender Differences in Employment by Place of Residence and County

| | Males | | | | | Females | | | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Em-ployee | Em-ployer | Own-account worker | Contri-buting family worker | Total | Em-ployee | Em-ployer | Own-account worker | Contri-buting family worker | Total | Em-ployee | Em-ployer | Own-account worker | Contri-buting family worker | Total |
| Urban | 52.7 | 26.0 | 8.0 | 13.2 | 1,273,639 | 52.0 | 28.9 | 8.5 | 10.5 | 1,312,438 | 52.4 | 27.5 | 8.3 | 11.9 | 2,586,077 |
| Rural | 46.9 | 20.8 | 17.7 | 14.6 | 1,098,656 | 46.9 | 24.2 | 16.2 | 12.8 | 1,015,502 | 46.9 | 22.4 | 17.0 | 13.7 | 2,114,158 |
| **County of residence** | | | | | | | | | | | | | | | |
| Bomi | 55.2 | 22.0 | 13.2 | 9.6 | 61,023 | 51.7 | 28.7 | 11.6 | 8.0 | 57,757 | 53.5 | 25.2 | 12.4 | 8.8 | 118,780 |
| Bong | 46.0 | 20.9 | 21.7 | 11.4 | 209,045 | 44.6 | 24.5 | 20.1 | 10.8 | 205,156 | 45.3 | 22.7 | 20.9 | 11.1 | 414,201 |
| Gbarpolu | 47.4 | 24.0 | 17.8 | 10.8 | 45,847 | 49.2 | 27.3 | 15.1 | 8.3 | 39,697 | 48.2 | 25.6 | 16.5 | 9.7 | 85,544 |
| Grand Bassa | 50.8 | 20.6 | 16.2 | 12.4 | 132,820 | 49.7 | 25.3 | 14.7 | 10.4 | 125,348 | 50.2 | 22.9 | 15.5 | 11.4 | 258,168 |
| Grand Cape Mount | 49.0 | 27.1 | 11.3 | 12.6 | 88,118 | 47.3 | 32.8 | 9.9 | 9.9 | 73,630 | 48.2 | 29.7 | 10.7 | 11.4 | 161,748 |
| Grand Gedeh | 42.5 | 26.6 | 12.4 | 18.5 | 106,579 | 47.6 | 28.3 | 9.6 | 14.5 | 92,527 | 44.9 | 27.4 | 11.1 | 16.6 | 199,106 |
| Grand Kru | 44.1 | 22.0 | 12.6 | 21.3 | 51,796 | 45.8 | 25.8 | 9.3 | 19.1 | 46,816 | 44.9 | 23.8 | 11.0 | 20.2 | 98,612 |
| Lofa | 40.3 | 17.7 | 20.8 | 21.2 | 165,162 | 39.5 | 19.6 | 19.9 | 21.0 | 165,269 | 39.9 | 18.6 | 20.4 | 21.1 | 330,431 |
| Margibi | 55.7 | 24.4 | 7.9 | 12.1 | 136,695 | 54.2 | 29.4 | 7.6 | 8.8 | 136,319 | 55.0 | 26.9 | 7.7 | 10.5 | 273,014 |
| Maryland | 52.8 | 25.6 | 9.7 | 11.9 | 78,758 | 54.5 | 27.5 | 8.6 | 9.4 | 77440 | 53.6 | 26.5 | 9.1 | 10.7 | 156,198 |
| Montser-rado | 52.6 | 25.9 | 7.6 | 13.9 | 852,179 | 51.8 | 29.0 | 8.3 | 10.8 | 885,211 | 52.2 | 27.5 | 8.0 | 12.4 | 1,737,390 |
| Nimba | 51.6 | 20.6 | 18.1 | 9.7 | 271,387 | 51.2 | 23.2 | 17.0 | 8.6 | 268,836 | 51.4 | 21.9 | 17.5 | 9.2 | 540,223 |
| River Cess | 47.8 | 16.6 | 14.7 | 20.9 | 42,023 | 49.0 | 20.7 | 13.4 | 16.9 | 37,337 | 48.3 | 18.6 | 14.1 | 19.0 | 79,360 |
| River Gee | 46.6 | 25.5 | 9.6 | 18.4 | 59,474 | 49.6 | 26.2 | 7.8 | 16.4 | 52,895 | 48.0 | 25.8 | 8.7 | 17.4 | 112,369 |
| Sinoe | 50.4 | 26.7 | 8.2 | 14.6 | 71,389 | 52.0 | 30.1 | 7.3 | 10.7 | 63,702 | 51.2 | 28.3 | 7.8 | 12.8 | 135,091 |
| **Total** | **50.0** | **23.6** | **12.5** | **13.9** | **2,372,295** | **49.8** | **26.9** | **11.8** | **11.5** | **2,327,940** | **49.9** | **25.2** | **12.2** | **12.7** | **4,700,235** |

## Appendix 16: Household Wealth Quintile by Sex of Household Head and Place and County Residence

| | Males | | | | | | Females | | | | | | Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Poor-est | Poor-er | Mid-dle | Richer | Rich-est | Total | Poor-est | Poor-er | Mid-dle | Richer | Rich-est | Total | Poor-est | Poor-er | Mid-dle | Richer | Rich-est | Total |
| Urban | 2.1 | 7.8 | 21.9 | 32.1 | 36.1 | 398,590 | 2.4 | 9.2 | 24.7 | 32.4 | 31.3 | 252,031 | 2.2 | 8.3 | 23.0 | 32.2 | 34.2 | 650,621 |
| Rural | 42.9 | 29.5 | 16.1 | 8.8 | 2.7 | 366281 | 44.0 | 30.6 | 15.9 | 7.4 | 2.1 | 170,282 | 43.3 | 29.8 | 16.0 | 8.3 | 2.5 | 536,563 |
| **County of residence** | | | | | | | | | | | | | | | | | | |
| Bomi | 30.7 | 27.6 | 19.5 | 14.7 | 7.5 | 23,006 | 31.9 | 27.1 | 20.4 | 13.7 | 6.8 | 15,577 | 31.2 | 27.4 | 19.9 | 14.3 | 7.2 | 38,583 |
| Bong | 38.9 | 24.0 | 18.4 | 14.8 | 3.9 | 71,003 | 34.4 | 23.3 | 22.0 | 16.8 | 3.4 | 39,088 | 37.3 | 23.8 | 19.7 | 15.5 | 3.7 | 110,091 |
| Gbarpolu | 46.2 | 31.6 | 13.0 | 7.8 | 1.5 | 15,703 | 46.0 | 30.7 | 14.0 | 7.8 | 1.4 | 6,706 | 46.1 | 31.3 | 13.3 | 7.8 | 1.4 | 22,409 |
| Grand Bassa | 45.6 | 19.7 | 14.6 | 14.1 | 6.0 | 49,565 | 39.1 | 17.2 | 17.6 | 19.6 | 6.5 | 19,715 | 43.8 | 19.0 | 15.5 | 15.7 | 6.1 | 69,280 |
| Grand Cape Mount | 26.9 | 24.4 | 23.5 | 17.3 | 8.0 | 30,769 | 26.7 | 26.1 | 25.0 | 16.4 | 6.0 | 14,396 | 26.8 | 24.9 | 23.9 | 17.0 | 7.3 | 45,165 |
| Grand Gedeh | 33.3 | 27.8 | 19.9 | 13.6 | 5.4 | 30,420 | 26.0 | 27.0 | 24.2 | 16.7 | 6.1 | 13,241 | 31.1 | 27.5 | 21.2 | 14.5 | 5.6 | 43,661 |
| Grand Kru | 38.1 | 32.2 | 18.8 | 8.8 | 2.1 | 12,643 | 36.7 | 35.1 | 19.1 | 7.2 | 1.8 | 7,962 | 37.6 | 33.3 | 18.9 | 8.2 | 2.0 | 20,605 |
| Lofa | 35.9 | 30.5 | 18.7 | 12.5 | 2.4 | 44,660 | 38.4 | 30.4 | 18.6 | 11.0 | 1.5 | 30,591 | 36.9 | 30.5 | 18.7 | 11.9 | 2.1 | 75,251 |
| Margibi | 16.4 | 15.6 | 24.5 | 27.3 | 16.1 | 47,574 | 16.2 | 16.2 | 26.2 | 28.1 | 13.3 | 24,702 | 16.3 | 15.8 | 25.1 | 27.6 | 15.1 | 72,276 |
| Maryland | 20.2 | 25.8 | 29.1 | 16.1 | 8.8 | 21,971 | 16.2 | 27.6 | 34.8 | 15.4 | 6.0 | 15,236 | 18.6 | 26.5 | 31.5 | 15.8 | 7.6 | 37,207 |
| Montser-rado | 2.4 | 5.5 | 16.8 | 31.3 | 44.0 | 283,614 | 2.4 | 5.7 | 17.7 | 32.2 | 41.9 | 166270 | 2.4 | 5.6 | 17.2 | 31.6 | 43.2 | 449,884 |
| Nimba | 25.5 | 29.3 | 25.9 | 14.1 | 5.2 | 83,994 | 23.6 | 27.2 | 28.5 | 16.2 | 4.5 | 43,956 | 24.9 | 28.6 | 26.8 | 14.8 | 5.0 | 127,950 |
| River Cess | 57.0 | 26.0 | 10.3 | 5.3 | 1.4 | 15,183 | 56.2 | 25.0 | 11.7 | 5.9 | 1.2 | 5,901 | 56.8 | 25.7 | 10.7 | 5.5 | 1.4 | 21,084 |
| River Gee | 32.4 | 29.9 | 23.7 | 11.7 | 2.3 | 14,430 | 24.1 | 33.1 | 29.6 | 11.7 | 1.5 | 9,467 | 29.1 | 31.1 | 26.0 | 11.7 | 2.0 | 23,897 |
| Sinoe | 38.3 | 28.6 | 14.8 | 11.9 | 6.3 | 20,336 | 35.2 | 29.4 | 18.8 | 12.3 | 4.3 | 9,505 | 37.3 | 28.9 | 16.1 | 12.0 | 5.7 | 29,841 |
| **Total** | **21.6** | **18.2** | **19.1** | **20.9** | **20.1** | **764,871** | **19.2** | **17.8** | **21.1** | **22.3** | **19.5** | **422,313** | **20.8** | **18.1** | **19.9** | **21.4** | **19.9** | **1,187,184** |

## Appendix 17: Marital Status, Gender, Place and County of Residence

| | Urban | | | | | |
|---|---|---|---|---|---|---|
| | **Male** | **Percent** | **Female** | **Precent** | **Total** | **Percent** |
| Never married | 727,309 | 68.9 | 726,227 | 67.5 | 1,453,536 | 68.2 |
| Married monogamous | 270,866 | 25.7 | 262,476 | 24.4 | 533,342 | 25.0 |
| Married polygamous | 18,244 | 1.7 | 15,450 | 1.4 | 33,694 | 1.6 |
| Separated | 6,362 | 0.6 | 8,977 | 0.8 | 15,339 | 0.7 |
| Divorced | 2,455 | 0.2 | 3748 | 0.3 | 6,203 | 0.3 |
| Widow/ widower | 5,859 | 0.6 | 31,175 | 2.9 | 37,034 | 1.7 |
| Consensual Union | 23,798 | 2.3 | 28,287 | 2.6 | 52,085 | 2.4 |
| **Total** | **1,054,893** | **100.0** | **1,076,340** | **100.0** | **2,131,233** | **100.0** |
| | Rural | | | | | |
| | **Male** | **Percent** | **Female** | **Precent** | **Total** | **Percent** |
| Never married | 500,404 | 55.9 | 417,235 | 50.4 | 917,639 | 53.3 |
| Married monogamous | 325,140 | 36.3 | 311,229 | 37.6 | 636,369 | 36.9 |
| Married polygamous | 21,731 | 2.4 | 16,116 | 1.9 | 37,847 | 2.2 |
| Separated | 13,608 | 1.5 | 15,506 | 1.9 | 29,114 | 1.7 |
| Divorced | 3,968 | 0.4 | 5,155 | 0.6 | 91,23 | 0.5 |
| Widow/ widower | 8,188 | 0.9 | 35,290 | 4.3 | 43,478 | 2.5 |
| Consensual Union | 22,022 | 2.5 | 27,051 | 3.3 | 49,073 | 2.8 |
| Total | 895,061 | 100.0 | 827582 | 100.0 | 1,722,643 | 100.0 |
| | Total | | | | | |
| | **Male** | **Percent** | **Female** | **Precent** | **Total** | **Percent** |
| Never married | 1,227,713 | 63.0 | 1,143,462 | 60.1 | 2,371,175 | 61.5 |
| Married monogamous | 596,006 | 30.6 | 573,705 | 30.1 | 1,169,711 | 30.4 |
| Married polygamous | 39,975 | 2.1 | 31566 | 1.7 | 71,541 | 1.9 |
| Separated | 19,970 | 1.0 | 24,483 | 1.3 | 44,453 | 1.2 |
| Divorced | 6,423 | 0.3 | 8,903 | 0.5 | 15,326 | 0.4 |
| Widow/ widower | 14,047 | 0.7 | 66,465 | 3.5 | 80,512 | 2.1 |
| Consensual Union | 45,820 | 2.3 | 55,338 | 2.9 | 10,1158 | 2.6 |
| **Total** | **1,949,954** | **100.0** | **1,903,922** | **100.0** | **3,853,876** | **100.0** |

## Appendix 18: Percent of Population with disability by Gender and County of Residence

| | Persons with disability | | | | | | Persons with no disabilities | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male | | Female | | Total | | Male | | Female | | Total | |
| | Number | Per-cent | Number | Per-cent | Number | Per-cent | Number | Per-cent | Number | Per-cent | Number | Per-cent |
| Urban | 125879 | 9.9 | 141339 | 10.8 | 267218 | 10.3 | 1147574 | 90.1 | 1171285 | 89.2 | 2318859 | 89.7 |
| Rural | 134287 | 12.2 | 132811 | 13.1 | 267098 | 12.6 | 964215 | 87.8 | 882845 | 86.9 | 1847060 | 87.4 |
| **County of residence** | | | | | | | | | | | | |
| Bomi | 10868 | 17.8 | 10892 | 18.9 | 21760 | 18.3 | 50147 | 82.2 | 46873 | 81.1 | 97020 | 81.7 |
| Bong | 26334 | 12.6 | 27202 | 13.3 | 53536 | 12.9 | 182681 | 87.4 | 177984 | 86.7 | 360665 | 87.1 |
| Grand Bassa | 13798 | 10.4 | 14006 | 11.2 | 27804 | 10.8 | 119004 | 89.6 | 111360 | 88.8 | 230364 | 89.2 |
| Grand Cape Mount | 9802 | 11.1 | 8286 | 11.3 | 18088 | 11.2 | 78301 | 88.9 | 65359 | 88.7 | 143660 | 88.8 |
| Grand Gedeh | 12795 | 12.0 | 11871 | 12.8 | 24666 | 12.4 | 93769 | 88.0 | 80671 | 87.2 | 174440 | 87.6 |
| Grand Kru | 7805 | 15.1 | 7560 | 16.1 | 15365 | 15.6 | 43984 | 84.9 | 39263 | 83.9 | 83247 | 84.4 |
| Lofa | 20820 | 12.6 | 22958 | 13.9 | 43778 | 13.2 | 144326 | 87.4 | 142327 | 86.1 | 286653 | 86.8 |
| Margibi | 13006 | 9.5 | 13355 | 9.8 | 26361 | 9.7 | 123674 | 90.5 | 122979 | 90.2 | 246653 | 90.3 |
| Maryland | 9300 | 11.8 | 10651 | 13.7 | 19951 | 12.8 | 69429 | 88.2 | 66818 | 86.3 | 136247 | 87.2 |
| Montserrado | 80818 | 9.5 | 90822 | 10.3 | 171640 | 9.9 | 771253 | 90.5 | 794497 | 89.7 | 1565750 | 90.1 |
| Nimba | 30697 | 11.3 | 33160 | 12.3 | 63857 | 11.8 | 240648 | 88.7 | 235718 | 87.7 | 476366 | 88.2 |
| River Cess | 4489 | 10.7 | 4452 | 11.9 | 8941 | 11.3 | 37527 | 89.3 | 32892 | 88.1 | 70419 | 88.7 |
| Sinoe | 7224 | 10.1 | 6971 | 10.9 | 14195 | 10.5 | 64150 | 89.9 | 56746 | 89.1 | 120896 | 89.5 |
| River Gee | 7015 | 11.8 | 6931 | 13.1 | 13946 | 12.4 | 52450 | 88.2 | 45973 | 86.9 | 98423 | 87.6 |
| Gbarpolu | 5395 | 11.8 | 5033 | 12.7 | 10428 | 12.2 | 40446 | 88.2 | 34670 | 87.3 | 75116 | 87.8 |
| **Total** | **260166** | **11.0** | **274150** | **11.8** | **534316** | **11.4** | **2111789** | **89.0** | **2054130** | **88.2** | **4165919** | **88.6** |

## Appendix 19: Percent of Population with Knowledge of Fistula by Gender and County of Residence

| | Male | | | Female | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Yes** | **No** | **Total** | **Yes** | **No** | **Total** | **Yes** | **No** | **Total** |
| Urban | 7.0 | 93.0 | 946755 | 8.4 | 91.6 | 955311 | 7.7 | 92.3 | 1902066 |
| Rural | 7.6 | 92.4 | 803127 | 8.4 | 91.6 | 747816 | 8.0 | 92.0 | 1550943 |
| Total | 7.3 | 92.7 | 1749882 | 8.4 | 91.6 | 1703127 | 7.9 | 92.1 | 3453009 |
| **County of residence** | | | | | | | | | |
| Bomi | 15.2 | 84.8 | 44320 | 17.6 | 82.4 | 43367 | 16.4 | 83.6 | 87687 |
| Bong | 13.7 | 86.3 | 152988 | 15.1 | 84.9 | 152862 | 14.4 | 85.6 | 305850 |
| Gbarpolu | 9.4 | 90.6 | 34856 | 10.9 | 89.1 | 29437 | 10.1 | 89.9 | 64293 |
| Grand Bassa | 8.0 | 92.0 | 97148 | 9.0 | 91.0 | 92411 | 8.5 | 91.5 | 189559 |
| Grand Cape Mount | 8.7 | 91.3 | 67931 | 9.3 | 90.7 | 56075 | 9.0 | 91.0 | 124006 |
| Grand Gedeh | 5.2 | 94.8 | 84488 | 6.9 | 93.1 | 69777 | 6.0 | 94.0 | 154265 |
| Grand Kru | 11.5 | 88.5 | 37892 | 14.0 | 86.0 | 33731 | 12.7 | 87.3 | 71623 |
| Lofa | 5.2 | 94.8 | 118363 | 5.0 | 95.0 | 120779 | 5.1 | 94.9 | 239142 |
| Margibi | 6.6 | 93.4 | 100386 | 7.6 | 92.4 | 99125 | 7.1 | 92.9 | 199511 |
| Maryland | 8.3 | 91.7 | 56368 | 9.2 | 90.8 | 55002 | 8.7 | 91.3 | 111370 |
| Montserrado | 5.9 | 94.1 | 640234 | 7.0 | 93.0 | 649775 | 6.5 | 93.5 | 1290009 |
| Nimba | 6.1 | 93.9 | 187292 | 7.8 | 92.2 | 188580 | 6.9 | 93.1 | 375872 |
| River Cess | 9.7 | 90.3 | 29924 | 9.2 | 90.8 | 27041 | 9.5 | 90.5 | 56965 |
| River Gee | 7.5 | 92.5 | 44235 | 8.3 | 91.7 | 38470 | 7.9 | 92.1 | 82705 |
| Sinoe | 3.0 | 97.0 | 53457 | 3.4 | 96.6 | 46695 | 3.2 | 96.8 | 100152 |
| **Total** | **7.3** | **92.7** | **1749882** | **8.4** | **91.6** | **1703127** | **7.9** | **92.1** | **3453009** |

## Appendix 20: Experience of Fistula Among Women 15 Years and Above

|  | Yes | No | Total |
|---|---|---|---|
| Urban | 0.8 | 99.2 | 955311 |
| Rural | 1.0 | 99.0 | 747816 |
| Total | 0.9 | 99.1 | 1703127 |
| **County of residence** |  |  |  |
| Bomi | 1.1 | 98.9 | 43367 |
| Bong | 1.0 | 99.0 | 152862 |
| Gbarpolu | 1.3 | 98.7 | 29437 |
| Grand Bassa | 0.7 | 99.3 | 92411 |
| Grand Cape Mount | 1.5 | 98.5 | 56075 |
| Grand Gedeh | 1.2 | 98.8 | 69777 |
| Grand Kru | 1.9 | 98.1 | 33731 |
| Lofa | 0.8 | 99.2 | 120779 |
| Margibi | 0.6 | 99.4 | 99125 |
| Maryland | 1.4 | 98.6 | 55002 |
| Montserrado | 0.7 | 99.3 | 649775 |
| Nimba | 1.2 | 98.8 | 188580 |
| River Cess | 1.1 | 98.9 | 27041 |
| River Gee | 1.0 | 99.0 | 38470 |
| Sinoe | 0.6 | 99.4 | 46695 |
| **Total** | **0.9** | **99.1** | **1703127** |

**Appendix 21: Population with Knowledge of Someone Who Has Fistula Experience by Gender and Locality of Residence**

| | Total | | | Males | | | Females | | |
|---|---|---|---|---|---|---|---|---|---|
| | Yes | No | Total | Yes | No | Total | Yes | No | Total |
| Urban | 1.4 | 98.6 | 1902066 | 1.2 | 98.8 | 946755 | 1.6 | 98.4 | 955311 |
| Rural | 1.6 | 98.4 | 1550943 | 1.4 | 98.6 | 803127 | 1.8 | 98.2 | 747816 |
| Total | 1.5 | 98.5 | 3453009 | 1.3 | 98.7 | 1749882 | 1.7 | 98.3 | 1703127 |
| **County of residence** | | | | | | | | | |
| Bomi | 1.8 | 98.2 | 87687 | 1.6 | 98.4 | 44320 | 1.9 | 98.1 | 43367 |
| Bong | 1.9 | 98.1 | 305850 | 1.7 | 98.3 | 152988 | 2.0 | 98.0 | 152862 |
| Gbarpolu | 2.6 | 97.4 | 64293 | 2.2 | 97.8 | 34856 | 3.0 | 97.0 | 29437 |
| Grand Bassa | 1.3 | 98.7 | 189559 | 1.2 | 98.8 | 97148 | 1.4 | 98.6 | 92411 |
| Grand Cape Mount | 2.1 | 97.9 | 124006 | 2.0 | 98.0 | 67931 | 2.1 | 97.9 | 56075 |
| Grand Gedeh | 1.5 | 98.5 | 154265 | 1.2 | 98.8 | 84488 | 1.9 | 98.1 | 69777 |
| Grand Kru | 2.8 | 97.2 | 71623 | 2.3 | 97.7 | 37892 | 3.4 | 96.6 | 33731 |
| Lofa | 1.2 | 98.8 | 239142 | 1.3 | 98.7 | 118363 | 1.2 | 98.8 | 120779 |
| Margibi | 0.9 | 99.1 | 199511 | 0.8 | 99.2 | 100386 | 1.0 | 99.0 | 99125 |
| Maryland | 2.0 | 98.0 | 111370 | 1.8 | 98.2 | 56368 | 2.3 | 97.7 | 55002 |
| Montserrado | 1.2 | 98.8 | 1290009 | 1.0 | 99.0 | 640234 | 1.4 | 98.6 | 649775 |
| Nimba | 2.0 | 98.0 | 375872 | 1.6 | 98.4 | 187292 | 2.5 | 97.5 | 188580 |
| River Cess | 1.8 | 98.2 | 56965 | 1.6 | 98.4 | 29924 | 2.0 | 98.0 | 27041 |
| River Gee | 1.8 | 98.2 | 82705 | 1.6 | 98.4 | 44235 | 2.2 | 97.8 | 38470 |
| Sinoe | 0.8 | 99.2 | 100152 | 0.7 | 99.3 | 53457 | 0.9 | 99.1 | 46695 |
| **Total** | **1.5** | **98.5** | **3453009** | **1.3** | **98.7** | **1749882** | **1.7** | **98.3** | **1703127** |