Republic of Liberia

Population Health Literacy Survey (HLS)



Report



Forward



It is with great pleasure and anticipation that I present to you the Liberia Health Literacy Survey Report (HLS). In a world where access to accurate health information is vital, this report stands as a beacon of insight into the health literacy landscape within Liberia.

Through meticulous research and analysis, this report sheds light on the

current state of health literacy among the diverse population of Liberia. It serves as a comprehensive resource, offering valuable data and observations that are crucial for policymakers, healthcare providers, educators, and all stakeholders investing in advancing healthcare outcomes in Liberia.

As we navigate the complexities of healthcare delivery, understanding the health literacy needs and challenges faced by communities is paramount. This report serves as a catalyst for informed decision-making, enabling targeted interventions and initiatives aimed at promoting health literacy and empowering individuals to make informed health choices.

I extend my gratitude to all those who contributed to the development of this report, from the researchers and data collectors, to the individuals and communities who generously shared their insights and experiences. It is through collaborative efforts such as these that we can drive meaningful change and progress in health literacy.

May this report serve as a stimulus for action and inspire a collective commitment to improve health literacy across Liberia.

Hon. Wilhemina Jallah, MD Minister of Health

Acknowledgements



The completion of the Liberia HLS Report would not have been possible without the dedication, expertise, and collaboration of numerous individuals and organizations. We extend our heartfelt appreciation to all those who contributed to this endeavor.

We are grateful to the World Health Organization for providing technical and financial support for the HLS training, field exercise and data analysis and the Ministry of Health for their guidance, support, and facilitation throughout the survey process.

Thanks, the HLS team that comprised of diligent fieldworkers, computer programmers and data analysts, whose commitment ensured the accuracy and reliability of the survey data. The survey participants, whose willingness to share their experiences and insights provided invaluable information that forms the foundation of this report.

Appreciation to our stakeholders (County Health Teams and County Superintendents) whose collaboration and engagement were instrumental in reaching diverse communities and ensuring the success of the survey.

Lastly, to all individuals and entities who have contributed in any way, no matter how small, to the development of this report, we express our gratitude for your dedication to advancing health literacy in Liberia.

Together, we have embarked on a journey to empower individuals, strengthen communities, and enhance healthcare delivery through improved health literacy. Your collective efforts have laid the groundwork for positive change, and we look forward to continuing this vital work together.

Francis Kateh MD, MHA, MPS/HSL, FLCP Deputy Minister/Chief Medical Officer,

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List of Acronyms and Abbreviations

EAs	Enumeration Areas
GHL	General Health Literacy
GHLS	General Health Literacy Scores
HHs	Households
HL	Health Literacy
HLS	Health Literacy Survey
IMF	International Monetary Fund
PHL	Population Health Literacy
МОН	Ministry of Health
WHO	World Health Organization

Executive Summary

Health literacy represents the personal knowledge and competencies that accumulate through daily activities, social interactions, and across generations. Individual knowledge and competencies are mediated by the organizational structures and availability of resources that enable people to access, understand, appraise, and use information and services that promote and maintain good health and well-being for themselves and those around them.

Methodology

The WHO-supported Health Literacy Survey (HLS) used a quantitative method and strategy for data collection and analysis, which includes primary data collection. This data collection method helps to achieve the study goals and objectives. The survey is quantitative data gathered from structured generic questionnaires developed by the WHO.

Nationally, 3,375 households were sampled with a 5% non-response rate. The National Population and Housing Census (2022) sampling frame was used to determine the sample size needed for the HLS. In the first stage of the sampling, counties were selected. During the second stage (using system random sampling techniques) of the sampling, the required Enumeration Areas (EAs) were selected from the County EAs listing. During the third stage of the sampling, 25 households were randomly selected, and the head of each household was interviewed. The head of household typically refers to a person in a household who is responsible for making important decisions and providing for the family. It's often associated with financial responsibility and decision-making authority.

Tablets were used for training and the HLS data collection. Computer-assisted personal interviews (CAPI) were used to collect and transmit completed questionnaires to a local server managed by the computer programmer.

Key Findings

The HLS revealed that little over a quarter (26%) of the respondents ever searched for information health about health, and 80% indicated that it was difficult to search online for health information. Additionally, 80% said it is difficult to find exact information online, and 77% said it is difficult to understand information found online.

In a typical week, 18% of respondents used websites for getting health-related information, 17% used social media, including online forums, to get health-related information, 18% used a digital device related to health or healthcare, and 17% used a health app on their mobile phone for getting health-related.

Respondents indicated that typing a health-related message on a digital device was difficult in urban and rural areas. For the urban communities, almost three-quarters (67 percent) of the population found it difficult to type health-related messages on a digital device. In rural settings, more than three-quarters (81 percent) of the population had difficulties typing a health-related message on a digital device.

Findings from the HLS show that nearly two-thirds (65 percent) of the respondents indicated that their health is very good or good, while 10% said their health is either bad or very bad. However, of those who said they were chronically ill, 22% said they had one or more chronic diseases or long-lasting health problems.

Over two-thirds (68%) of the respondents indicated that they are not medically impaired by chronic illness, but a quarter were moderately impaired by chronic disease.

The study found that 98% of respondents agreed that vaccination protects them and their children, and 97% think vaccines are safe. Regarding access to vaccination information, over half (58 percent) of respondents indicated that it is easy to find, while 42% said it is difficult. Additionally, over two-thirds (68 percent) of the respondents mentioned that it is easy to understand why they need vaccination.

The General Health Literacy scores indicate that 45.5% of the respondents have inadequate health literacy, 26.4% have problematic GHL, 23.8% have sufficient HL, and only 4.4% have excellent GHL.

Recommendations

The suggested actions are proffer for consideration to increase health literacy in Liberia:

- The Government of Liberia addresses the core determinants of health, such as education, poverty, income, access to information, and health that impede the population from better health education;
- The Ministry needs to develop and implement a health communication strategy that will foster increased health literacy in Liberia;
- Clinicians need to ensure health talks are provided to patients or health services users daily;
- The Government of Liberia needs to increase access to reliable electricity and internet connectivity to increase the number of internet users and health information searches online;
- The Ministry of Health and its development partners must support health education and literacy by increasing awareness of the importance of general health literacy.

1.0 Background

1.1 Introduction

In recent years, the concept of Health Literacy (HL) has gained increasing attention in public health research as well as in health services reform processes, and now it is considered one of the essential factors and determinants of individual health and health service use. HL is an evolving concept that has expanded from a simple understanding of health information to a comprehensive meaning of health information aimed at empowering citizens for healthy living.

The World Health Organization (WHO) Global Survey of Population Health Literacy (PHL) seeks to support countries in generating evidence on levels of population health literacy to inform policies and programs and ensure their responsiveness and relevance. The findings will inform national and global agendas to enhance health literacy.

1.2 Liberia's Profile

Liberia is a low-income country located on the west coast of Africa and borders the Republic of Guinea, Sierra Leone, and Cote d'Ivoire. There are 15 counties and 16 major tribes. Liberia has an estimated population of 5.25 million people and access to healthcare within one hour of walking or 5 kilometers is 70%¹. According to the World Bank, due to the pandemic, the population living below the national poverty line has increased from 55.5% in 2019 to 68.9%, "meaning that an additional 526,000 Liberians are at risk of falling into poverty" (IMF - World Economic Outlook Database - October 2021). Poverty incidence is 71.6 percent in rural areas, which is more than twice as high as in cities (31.5 percent). In addition, 44 percent of the



population lived under the extreme international poverty line of 1.90 per day².

Liberia's capital is Monrovia which has a land area of 111,369 square kilometers and an estimated population of 5.2 million³. The official language is English and the Liberian Dollar is the official currency. Liberia's diverse landscape includes lush tropical rainforests, extensive coastline along the Atlantic Ocean, rolling plains, and mountainous regions. The country's interior features dense forests and numerous rivers, including the iconic Cavalla River.

Unfortunately, many Liberians do not have formal education, with a significant portion of females and males aged six years and older having no formal education or only some elementary education. Thirty-one percent of women and 14% of men aged 15-49 have no formal education. The proportion of men and women with no formal education varies from county to county. We must work together to find ways to improve access to education for all Liberians to ensure that they have the tools they need to make informed decisions about their health.

¹ 2022 National Population and Housing Census

² Worldbank.org: https://databankfiles.worldbank.org.>public>poverty

³ 2022 National Population and Housing Census

1.3 What is Health Literacy?

Health literacy represents the personal knowledge and competencies that accumulate through daily activities, social interactions, and across generations. Personal knowledge and competencies are mediated by the organizational structures and availability of resources that enable people to access, understand, appraise, and use information and services to promote and maintain good health and well-being for themselves and those around them⁴.

One of the priorities of the WHO is to develop integrated and people-centered health services that reduce health costs and improve the quality of Life. Therefore, it is necessary to establish strategies to empower patients and increase their engagement in health decision-making. Patients' access to and understanding of health information becomes essential⁵.

1.4 Why is Health Literacy critical?

In today's complex healthcare landscape, individuals need to comprehend health information to make informed decisions about their health, including understanding medical conditions treatment options, and preventive measures.

Health literacy helps individuals navigate healthcare systems more effectively, including understanding insurance coverage, filling out forms, scheduling appointments, and accessing appropriate care. Also, people with higher health literacy are better equipped to evaluate the risks and benefits of different health interventions, such as medications, procedures, and lifestyle changes enabling them to make informed decisions aligned with their values and preferences.

Health literacy empowers individuals to engage in preventive health practices, such as adopting healthier lifestyles, seeking regular screening, and recognizing early signs of illness, leading to better health outcomes and reduced healthcare costs. On the contrary, low health literacy disproportionately affects vulnerable populations, contributing to disparities in health outcomes. Improving health literacy can help mitigate those disparities by ensuring everyone has equal access to and understanding of health information and services.

Health literacy is essential for promoting individual and public health, enhancing healthcare quality, and reducing healthcare disparities.

2.0 Health Literacy Survey Methodology

The WHO-supported Health Literacy Survey (HLS) used a quantitative method and strategy for data collection and analysis, which includes primary data collection. The survey data collection method helps to ensure the achievement of the study goals and objectives. The survey is based on quantitative data gathered from structured generic questionnaires developed by the WHO.

⁴ Nutbeam, D. and Kickbusch, L. (1998). Health promotion glossary, Health Promotion, International, 13(4), 349-364

⁵ World Health Organization. WHO global strategy on people-centered and integrated health services INTERIM report;2015. P. 1-50

The fifteen (15) counties of Liberia will constitute the sampling frame and geographic focus of the research. All counties were selected to ensure geographic, regional, and national representativeness of the survey. The selection of the sample size was done at the household level in each county. The sample size was selected by locality (urban, rural) in order to adequately capture the indicators of the HLS. The sample frame was drawn from the 2022 National Population and Housing Census (NPHC) framework of the Liberia Institute of Statistics and Geo-Information Services (LISGIS).

2.1 HLS Design

A total of 3,375 households were selected with a 5% none response rate. The sample frame of the 2022 NPHC for the 15 counties was used for the collection of data for the HLS. At the first stage of the sampling, all counties were selected for the HLS. At the second stage (using system random sampling techniques), the requisite number of EAs for the study were selected from the EA listing of the county. At the third stage, 25 households were selected randomly and the head of each household was interviewed.

2.2 Distribution of Sample Size

A sample of 135 enumeration areas and 3,375 households were selected from the 15 counties of Liberia. In each sampled household, the head of household or the next qualified person, in the absence of the head of household was interviewed. The total sample size was distributed using probability proportional to size (PPS) to avoid bias in sample allotment by county. Given that the selected households of Montserrado and Nimba Counties are disproportionally higher than the rest of the 15 counties (and that it is important to cover a minimum of at least six enumeration area or EA per county), as indicated in Annex A. Each EA is comprised of an average HHs of 100 in urban areas and 90 HHs in rural areas. In each EA, 25 households were targeted for interview and 3,294 out of 3,375 households were interviewed.

2.3 Health Literacy Survey Instruments

The survey utilized a generic HLS questionnaire that is structured around four sections:

- 1. Socio-demographic variables
- 2. Health Literacy
- 3. Digital health literacy and information behaviour
- 4. Health Indicators (health outcomes and health behaviour)
- 5. Vaccination literacy

The HLS questionnaire was customized to the Liberian context with the inclusion few questions, such as questions on literacy, marital status, and education.

2.4 Personnel

The field team comprised of experienced data collectors (supervisors and enumerators), most of whom have participated in several households surveys in Liberia. The data collectors were

trained in the HLS tools and the survey methodology. A two-day training was conducted by the consultants and a computer programmer. At the end of the training, enumerators and supervisors were assigned to their respective county to administered the HLS questionnaire. The enumerators spent an average of seven days in their assigned county.

Enumerators were tasks to administered the HLS questionnaire and at the end of each data collection day, submit completed questionnaire to the designated server. The supervisors were tasked to assign member of his team to three EAs within the county.

2.5 Training

The training of field personnel for the survey was held for two days (January 8-9, 2024). The training focused on community entry, review of the questionnaire and the use of tablet to collect data. A mock exercise was carried out among participants to ensure that they understand the questionnaire and that they familiarized themselves with the HLS questionnaire.

2.6 Data Collection

The HLS data was collected within a eight days across Liberia. Fifteen teams were assembled and dispatched to the counties to conduct face to face interviews with head of households and persons 18years and above. The head of household typically refers to a person in a household who is responsible for making important decisions and providing for the family. It's often associated with financial responsibility and decision-making authority. The generic HLS questionnaire was used to capture data using tablets. The data collection took an average of one hour to administer a questionnaire. Interviews were conducted in person, at selected structures and households.

Tablets were used during the HLS training and for HLS data collection. Computer assisted personal interviews (CAPI) was used to collect and transmit completed questionnaires to a local server that was managed by the computer programmer.

2.7 Methods of Data analysis

The analytical methods to be employed include rates, ratios and other descriptive statistics. Other descriptive statistical methods will include frequency tables, measure of central tendency (e.g. mean), percentages and graphical presentations. These methods will be used to determine and analyze the results survey.

- 3.0 Socio-demographic and Economic Characteristics of Respondents
- 3.1 Respondents by sex and by place of residence

The distribution of the population by sex and place of residence, showed more females (55.3 percent) than males in the population, with a 10.6% margin as shown in Table1. As regard the place of residence, there were more population in urban areas (65.6 percent) than those in rural communities, showing a percentage differential of 31.3% as shown in Table 1.

Sex	Percentage	Number				
Male	44.7%	1,472				
Female	55.3%	1,822				
Total	100.0%	3,294				
Residence						
Urban	65.6%	2,160				
Rural	34.4%	1,134				
Total	100.0%	3,294				

Table 1: Distribution of respondents by sex and place of residence

There are more females (55 percent) than males' respondents on the overall. In the early ages (e.g., from 18 to 24 years), there are higher percentage of females while around the older ages (from 60 years up to 75 years), the male percentage are higher than females.

3.2 Respondents by place of residence and by age

There is generally a higher percentage of the people residing in urban areas compared to rural areas. Age group 30-39 has the highest percentage (25 percent) of respondents, while those aged below 20 years constitute the lowest percentage (1 percent). Figure 1 depicts the percentage of respondents by age groups and by urban-rural place of residence.



Figure 1: Distribution of population by age and place of residence

3.3 Education Status of Respondents

Education plays a crucial role in promoting health on various levels. It equips individuals with the knowledge and skills needed to make informed decisions about their health, understand preventive measures, access healthcare services, and adhere to medical treatments. Moreover, higher levels of education are often associated with better health outcomes, including lower rates of chronic diseases, higher life expectancy, and improved overall well-being. Additionally, education can empower individuals to advocate for their health rights and contribute to the development of healthier communities through initiatives and policies aimed at addressing social determinants of health.

The HLS found that 29.8% of respondents had no formal education, 11.6% did not complete any level of education and 24% completed senior high education. Also, less than 5% of the respondents attained bachelor and above education level. Figure 2 shows the distribution of respondents by educational level completed.



Figure 2: Distribution of the respondents by Educational Level Completed

Nearly 30% of respondents had no formal education with the majority of females with no formal education (20.1 percent), compare to males (9.7 percent). Additionally, 4.1% of males did not complete any level of education compare to 7.7% females. The proportion of males and females' respondents with master degree is below one percent and there was no respondent with doctorate degree. Figure 3 depicts the percentage of respondents by educational level completed by sex.



Figure 3:Distribution of the respondents by educational level completed by sex

3.4 Marital Status of Respondents

Marital status can have an impact on health in various ways. Married individuals often have access to emotional support, which can positively affect mental and physical well-being. Additionally, marriage may encourage healthier behaviors, such as regular exercise and balanced

nutrition. However, it's important to note that the quality of the relationship matters, and being in an unhealthy or stressful marriage can have negative health effects.

The majority of the HLS respondents were single people (46 percent), while 40% were married and 8% were ever married (divorced, separated and widowed, etc). Figure 4 presents the distribution of respondents by marital status.





3.5 Employment Status of Respondents

Employment status can significantly impact health. Being employed often provides financial stability, access to healthcare benefits, and a sense of purpose, which can positively influence physical and mental well-being. However, job-related stress, long working hours, and unhealthy work environments can have adverse effects on health.

Nearly half (42 percent) of the respondents are unemployed, 35% are self-employed and 11% employed. Figure 5 depicts the distribution of respondents by employment status.



Figure 5: Distribution of the population by employment status

3.6 Respondents Nationality

The majority of the respondents were Liberians (97.8 percent), while Ivoirians constitutes 0.8% and Guineans 0.6%. Figure 6 presents the percentage of respondents by nationality.



Figure 6: Distribution of respondents by nationality and place of birth

4.0 Health Training, Population Affordability and Support System

4.1 Professional health training status of the population

The proportion of urban respondents with professional health training was 8%, while 2% of rural respondents had professional training. There are more trained health professionals in urban than rural areas. Figure 7 shows the distribution of the population by professional health training by place of residence.

Figure 7: Distribution of the population by professional health training by place of residence



Only 10% of respondents have been trained as health professional. Age group 30-39 had the highest percentage (2.8 percent) of trained health professional. The lowest percentage was those aged 18-19yrs (0.2 percent). This implies that less people have had professional health training in the population. Figure 8, depicts the distribution of the population by professional health training by age group.





The county level analysis revealed that one-tenth (10 percent) of the respondents had professional health training. The data further showed that one-fifth (20 percent) of respondents from Bong County were professionally trained, followed by Margibi (16 percent) and Montserrado (14 percent) and River Gee (13 percent). Counties with the third highest trained professionals were Grand Bassa and Grand Cape Mount, with 10% each, while the lowest trained professional staff were located in Bomi (2 percent) and Nimba (3 percent) as indicated in Table 2.

County	ty Percentage Percentage Not Trained trained		Number		
Bomi	2%	98%	150		
Bong	20%	80%	300		
Gbarpolu	5%	95%	222		
Grand Bassa	10%	90%	146		
Grand Cape Mt	10%	90%	149		
Grand Gedeh	5%	95%	149		
Grand Kru	9%	91%	225		
Lofa	6%	94%	226		
Margibi	16%	84%	150		
Maryland	5%	95%	673		
Montserrado	14%	86%	302		
Nimba	3%	97%	150		
Rivercess	6%	94%	150		
River Gee	13%	87%	150		
Sinoe	4%	96%	152		
Liberia	10%	90%	3,294		

Table 2: Distribution of the respondents by professional health training by County

4.2 Health care profession training of respondents

Generally, less people have not been trained in healthcare profession. Interestingly, the proportion of male and female that have been trained as healthcare profession is the same (5 percent). Figure 9 presents the respondents by sex who have been trained as a healthcare professional.



Figure 9: Respondents by sex and training in healthcare profession

4.3 Affording needed medications

In urban areas, 40% of respondents found it very difficult or difficult afford needed medication while little over a quarter (26 percent) of respondents found it very easy or easy to afford needed medication. Similarly, in rural areas, 23% of respondents indicated difficulty affording needed medication. Affording the needed medication is also difficult for both males and females. For males, 27% found it difficult to afford medication when needed, likewise 35% of the females. As indicated in figure 10, only 18% of males and 20% of females indicated that they can afford needed medication with ease.



Figure 10: Respondents by how easy or difficult it is usually to afford medication if needed by Sex and by Place of Residence

The HLS revealed that 37% of respondents can afford needed medication with ease while 63% said it is either difficulty or very difficulty to afford needed medication. At the county level, Maryland had the highest percentage (77 percent) of respondents with easy means of affording needed medication, followed by Grand Cape Mount County (56 percent). The third highest counties where people easily afforded needed medication were Grand Gedeh and River Gee (42 percent) each. In Bong County, 81% of the respondents found it difficult to afford needed medication. Lofa County had the second highest (79 percent), followed by Nimba (65 percent) and Rivercess (64 percent). Figure 11 depicts the distribution of respondents by easiness or difficulty affording needed medication by county.



Figure 11: Respondents by easiness or difficulty affording needed medication by county

For all ages, 5% can afford needed medication very easily. Those 60years and above have the lowest percentage of affording needed medication (3 percent), while those 18-19years and 40-49years have highest percentage of affording needed medication (6 percent). It was difficult to afford needed medication for all age. Those aged 60 and above have the highest (58 percent) difficulties affording needed medication as indicated in figure 12.

Figure 12: Respondents by easiness or difficulty of affording needed medication by age





On the account of affording needed medical examinations and treatments in rural and urban areas, and by sex differentials; more than half (63 percent) of the respondents found it difficult to afford these services. It was found that 40% in urban and 23% in rural communities had difficulties affording needed medical examinations and treatments. Similarly, 28% of the males and 36% of females found it difficult to afford medical examinations and treatments as indicated in Figure 13.

Figure 13: Respondents by easiness or difficulty of affording needed medical examinations / treatments and by place of residence and by sex



The data from the county level showed that 61% of the respondents in Maryland found it easier to afford needed medical examinations and treatment. Other counties that also had easy means of affording needed medical examinations and treatments were Grand Cape Mount and Grand Kru Counties, with 60% and 46% respectively. Regarding how difficult it is to afford needed medical

examinations and treatment, Lofa had the highest percentage (81 percent), followed by Bong (8 percent), and Margibi (65 percent). Figure 14 presents respondents by how easy or difficult it is usually to afford medical examinations and treatments.

Figure 14:Respondents by easiness or difficulty of affording needed medical examinations / treatments and by County



Affording medical examinations and treatments for all the age categories is difficult among more than half (50 percent) of each of the groups. The ages 18-19years (60 percent) and 60 and above years faced the highest of difficulties (59 percent) in affording needed medical examinations and treatments respectively. Figure 15 depicts respondents by easiness or difficulty of affording needed medical examinations / treatments and by age.

Figure 15: Respondents by easiness or difficulty of affording needed medical examinations / treatments and by age



4.5 Paying all monthly bills

In the urban communities, 20% of the respondents found it easy to pay all bills at the end of the month. Similarly, 8% of the rural respondents found it easy to pay all bills at the end of the month. One-third (33 percent) of females' respondents found it difficult to pay all bills at the end of the month as compared to 23% of males as indicated in figure 16.



Figure 16:Respondent by easiness or difficulty of paying all monthly bills and by place of residence and by sex

At the county level, it was easy to pay all bills at the end of the month in Grand Gedeh (65 percent) Grand Cape Mount (56 percent) and Maryland (55 percent) than the other counties. Bong and Lofa Counties had the highest population (85 percent and 79 percent respectively) that found it difficult and very difficult in affording all bills payment at the end of the month. Figure 17 shows respondents by easiness or difficulty of paying all monthly bills and by county.

Figure 17: Respondent by easiness or difficulty of paying all monthly bills and by county



All the age groups had difficulties to pay all bills at the end of the month. Those aged 20 - 29years, had the highest (61 percent) difficulties in underwriting all the bills by close of the month. The second highest were those between 18 - 19 years (57 percent) followed by age groups 50 - 59 years (56 percent). Figure 18 presents the percentage of respondents by easiness or difficulty of paying all monthly bills and by age.



Figure 18:Respondents by easiness or difficulty of paying all monthly bills and by age

4.6 Efficiency level of disposable money

Nearly all rural and urban residents did not have sufficient money at their disposal (45 percent). Almost two-third (32 percent) of the rural residents had insufficient money at their disposal, compared to 58% of urban dwellers who had insufficient money at their disposal. Likewise, both

males (39 percent) and females (50 percent) did not have sufficient money at their disposal as indicated in figure 19.



Figure 19: Respondents by the sufficiency of disposable money and by place of residence and by sex

Analysis from the county level revealed that the respondents of two out of fifteen counties (Grand Gedeh and Maryland) had little over a quarter (27 percent and 26 percent each) of financial sufficiency. Margibi had the highest (77 percent) of respondents with insufficient money at their disposals. Since and Kru counties are the second and third highest counties with no sufficient money at people's disposals at (72 percent) and (68 percent) respectively as indicated in figure 20.



Figure 20:Respondents by the sufficiency of disposable money and by county

None of the age groups had any appreciable level of financial sufficiency. The population aged 18-19 years had the highest (58 percent) of people with no sufficient money at their disposal. The second highest (54 percent) were those aged 60 years and older as mentioned in figure 21.





4.7 Persons available to help during personal emergency

In rural communities, 8% of the population were not close to people who could help in case of serious personal problems while in urban areas 12% the respondents had the same issue. A litter over a quarter (26 percent) of the respondents in urban areas and only 12% of those in rural settings had 1 or 2 people close to them to help in case of personal problems.

In addition, 11% of females were not close to people who could help in the serious personal problems compare to 8% males. Twenty-two percent of females are close to at most 1 or 2 people who could help in the case of serious personal problems compared to 16% for males. Figure 22 shows the percentage of respondents by how many people are so close by to help in the case of serious personal problems and by place of residence and by sex.

Figure 22: Respondents by how many people are so close by to help in the case of serious personal problems and by place of residence and by sex



Nationally, 19% had no one close by to help in case of serious personal problems, 39% had 1 or 2 persons and 27% or 3 to 5 people close by to help. At the county level, Grand Bassa had the highest percentage (49 percent) of people with no one close by to help in case of serious personal problems, followed by Grand Kru (40 percent) and Bomi County (39 percent). Maryland County had the highest (67 percent) of people (1 to 2) who were close by to help in case of serious personal problems. The second highest was River Gee (61 percent). Only Grand Gedeh had close to half (44 percent) of their respondents that could get help from 6 or more people in case of serious personal problems. Figure 23 depicts the percentage distribution of respondents by how many people are so close by to help in the case of serious personal problems and by county.

Figure 23: Respondents by how many people are so close by to help in the case of serious personal problems and by county



Age groups 18-19years and 20-29years had the lowest percentage (17 percent) of no one close by to help in the case of serious personal problems. For those who had 1 or 2 people to help in case of serious personal problems, 18-19 years had the highest (50 percent). Figure 24 presents the percentage of respondents by how many people are so close by to help in the case of serious personal problems and by age.



Figure 24: Respondents by how many people are so close by to help in the case of serious personal problems and by age

4.8 Degree of concern and interest people show in what they do

In urban communities, 23% of the respondents indicated that people showed some concern and interest for others compared to 12% in rural areas. Similarly, 16% of urban respondents said people showed little concern and interest for others while in rural areas 10% of respondents indicated that people showed little concern and interest. With sex differentials, more female mentioned, that people showed concerns and interest in helping others than males. Figure 25 shows the percentage of respondents by residence, sex and how much concern and interest people show in what they do.



Figure 25: Respondents by residence, sex and how much concern and interest people show in what they do

Nationally, 26% of respondents said people showed a lot of concern and interest in what they do, 35% of respondents indicated that people showed some concern and 26% said people showed little concern and interest. At the county level, Grand Gedeh, recorded the highest percentage of respondents (81 percent) who said people who showed some concern and interest in what they do, followed by Grand Cape Mount and Margibi Counties, with 48% respectively. The counties whose respondents mentioned lowest concern and interest were Grand Bassa and Sinoe. Figure 26 depicts the percentage of respondents by county and how much concern and interest people show in what they do.



Figure 26:Respondents by county and how much concern and interest people show in what they do

Of all the age categories, 28% of respondents 50-59 years reported that people have lot of concern and interest to help others, while 27% of respondents, 60 years and above indicated that people have some concern and interest. Also, 32% of respondents 18-19 years said people have little concern and interest. Figure 27 shows the distribution of respondents by age and how much concern and interest people show in what they do.

Figure 27: Respondents by age and how much concern and interest people show in what they do



4.9 Getting needed practical help from neighbors

It was more difficult to get help from neighbors in urban areas than rural communities. In rural areas, 11% of the population found it difficult getting practical help from neighbors, while that of urban was 21%. It was also more difficult for females to get practical help from neighbors than males, accounting for 18% and 13% respectively. The study also showed that 22% of urban population found it very easy, easy and possible to get practical help from their neighbors, compared to 11% of rural respondents. Figure 28 depicts the distribution of respondents by residence, sex and easiness of getting needed practical help from neighbors.



Figure 28:Respondents by residence, sex and easiness of getting needed practical help from neighbors

At the national level, 28% of respondents reported that it is easy to get practical help from neighbors, 28% said it is possible, 31% indicated that it is difficult and 7% said it is very difficult to get practical help from neighbors. The county level analysis revealed that Grand Cape Mount reported the highest percentage of respondents (63 percent) who mentioned how easy it is to get practical help from neighbors, followed by Maryland (56 percent) and Sinoe (51 percent) counties. According to respondents, it is difficult to get practical help from neighbors in Gbarpolu (53 percent) and Bong (52 percent). Similarly, the respondents in Bomi (66 percent) and Gbarpolu (64 percent) said it is difficult and very difficult to receive help from neighbors as mentioned in figure 29.



Figure 29: Respondents by county and easiness of getting needed practical help from neighbors

For the age categories, age group 40-49 years had the highest percentage (30 percent) of respondents who reported how easy it is to get practical help from neighbors while age group 18 - 19 years reported the highest percentage (35 percent) of respondents who mentioned, how difficult it is in getting practical help from neighbors. Figure 30 shows the distribution of respondents by easiness of getting needed practical help from neighbors by age groups.





5.0 Digital Health Literacy and Information Behavior

Digital health literacy refers to the ability of individuals to access, understand, evaluate, and apply digital health information and services to make informed decisions regarding their health. It encompasses skills such as navigating health websites, understanding medical terminology, evaluating the credibility of online health information, and using digital tools for managing health conditions or seeking medical advice. With the increasing reliance on digital platforms for health-related information and services, digital health literacy has become essential for promoting health and well-being in the digital age.

Digital health literacy, sometimes referred to as eHealth literacy, is defined by the World Health Organization as the ability to seek find understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem.

5.1 Population by whether people ever search for information

The HLS revealed that little over a quarter (26 percent) of the respondents ever search for information health about health. Figure 31 shows the percentage of the population by whether people ever search for information about health.



Figure 31: Percentage of population by whether people ever search for information about health

Searching for information about health is a common behavior among populations, reflecting a growing awareness and interest in personal well-being. This trend often involves seeking information about symptom, medical conditions, treatments, and preventive measures through various sources such as search engines, medical websites, forums, and social media platforms.

This pursuit of health information can empower individuals to make informed decisions about their healthcare and lifestyle choices. However, it's important to critically evaluate the credibility and accuracy of the sources consulted to ensure reliable information is obtained.

Only 15% of males and 11% of females have ever search for information about health. Furthermore, almost one-third (30 percent) of males and 44% of females have never search for information about their health. Figure 32 depicts the percentage of respondents by whether they have ever search for information about health.



Figure 32: Percentage of population by whether people ever search for information about health by sex

Result from the HLS revealed that people in urban areas are three times more likely to search for information about health than those in rural communities. Twenty percent of respondents in urban areas ever search for information about health compare to only 6% of rural respondents.



Figure 33: Percentage of population by whether people ever search for information about health by place of residence

The HLS finding shows that only 7% of persons' age 30-39 years searched for information about health compare to one percent of people 18-19yrs. Figure 34 presents the percentage of population by whether people ever searched for information about health by age.



Figure 34: Percentage of population by whether people ever search for information about health by age

Searching for health information online can vary in difficulty depending on factors such as the specificity of the information you're seeking, the reliability of the sources you encounter, and

your familiarity with navigating search engines. Generally, finding basic information about common health topics is relatively easy, as there are numerous reputable websites and organizations dedicated to providing accurate health information. However, for more specialized or complex topics, it may require more effort to sift through the abundance of information available and ensure that you're accessing reliable sources. It's important to critically evaluate the credibility of the sources you come across and consult multiple reputable sources when making health-related decisions.

Nearly 80% of respondents indicated that it was very difficult or difficult to search online for health information, 80% said it is very difficult or difficult to find exact information online and 77% indicated that it is very difficult or difficult to understand information found online. Table 3 depicts the percentage distribution of the population by how easy or difficult to search for health information online.

Population by how easy or difficult it is when respondent search online for information on health					
Description	Very Easy	Easy	Difficult	Very Difficult	
When you search online for information on health, how easy or difficult is it for you to use the proper words or search query to find the information you are looking for?	5%	16%	44%	35%	
When you search online for information on health, how easy or difficult is it for you to find the exact information you are searching for ?	4%	17%	44%	36%	
When you search online for information on health, how easy or difficult is it for you to understand the information?	5%	18%	43%	34%	
When you search online for information on health, how easy or difficult is it for you to judge whether the information is reliable?	4%	18%	45%	33%	
When you search online for information on health, how easy or difficult is it for you to judge whether the information is offered with commercial interests?	3%	16%	48%	32%	
When you search online for information on health, how easy or difficult is it for you to visit different websites to check whether they provide similar information about a topic?	3%	15%	48%	33%	
When you search online for information on health, how easy or difficult is it for you to judge how information from your doctor, nurse or health worker applies to you (including instruction/ communication received via mobile phone and internet)?	4%	19%	48%	29%	
When you search online for information on health, how easy or difficult is it for you to judge if you may need to get a second opinion from another doctor, nurse or health worker (including second opinion received via mobile phone and interact)?	304	1.80/	409/	300/	
	5%	10%	47%	50%	

Table 3: Percentage distribution of population by how easy or difficult to search online for information on health

Table 4 shows that 29% of respondents indicated that it is easy to clearly formulate your written message when communicating with a health provider while 71% said it is difficult.

Population by how easy or difficult is it when typing a health-related message on a digital device							
Description	Very Easy	Easy	Difficult	Very Difficult			
Clearly formulate your written message when communicating with a health provider (i.e. question or statement, add per-							
sonal information)?	5%	24%	43%	28%			
Express your opinion, thoughts or feelings, ask a question in	40/	21.0/	4500	200/			
writing on social media including online forums?	4%	21%	45%	29%			

 Table 4: Population by how easy or difficult is it when typing a health-related message on a digital device

In a typical week, 18% of respondents use websites for getting health related information, 17% use social media including online forums for getting health related information, 18% use a digital device related to health or healthcare and 17% use health app on their mobile phone for getting health related. Table 5 presents population by how many days a week respondents use digital resources for getting health related information.

Table 5: Population by how many days a week do respondent use the following digital resources for getting health related information

Population by how many days a week do repondent use the following digital resources for getting health related information?							
Description	Less than once a week	1-3 days per week	4-6 days a week	Once a day	More than once a day	Not relevant for me	Less than once a week
In a typical week, how many days do you use Websites for getting health related information? Please provide only one answer	18%	5%	3%	2%	3%	63%	6%
In a typical week, how many days do you use Social Media including online forums for getting health related information? Please provide only one answer	17%	5%	2%	3%	3%	64%	6%
In a typical week, how many days do you use A digital device related to health or health care [Interviewer instruction e.g. pedometer, smart watch, fitness bracelet, etc.]. for getting health related information? Please provide only one answer	18%	5%	2%	2%	2%	66%	5%
In a typical week, how many days do you use Health app on your mobile phone [Interviewer instruction e.g. to calculate calorie consumption, support medication intake, measure physical activity, promote healthy sleep, etc.] for getting health related in	17%	4%	2%	2%	2%	67%	5%
In a typical week, how many days do you use Digital interaction with your health system [Interviewer instruction e.g. online appointments, access to personal health records, electronic delivery/transmission of medical tests, digital communication	17%	4%	2%	2%	2%	68%	5%

5.2 Weekly use of digital resources for health-related information

Regarding the use of digital resources for accessing health related information, more people in the population did not see it relevant. In urban communities, less than a quarter (20 percent) used digital resources to get health related information for less than a week while more than half (59 percent) of the population did not find the use of digital information as relevant. Similarly, close to three quarters (71 percent) of the population found the use of digital resources irrelevant in

rural areas when it comes to getting health related information while only 15% of them used it for less than once a week.

Also, more than half (56 percent) of the male population found the use of digital resources to get health related information as not relevant. Even for those who used it, 20% of them did less than once a week. More than the males, 69% of the females also took the use of digital resources for accessing health related information as something of no relevance for them. Only 16% of the females used digital resources for health purposes, but also for less than once a week.

	Less	1-3			More		Less	
	than	days	4-6		than	Not	than	
	once a	per	days a	Once	once a	relevant	once a	
Time	week	week	week	a day	day	for me	day	Number
Residence								
Urban	20%	7%	4%	3%	3%	59%	5%	2,159
Rural	15%	3%	1%	1%	2%	71%	7%	1,134
Total	18%	5%	3%	2%	3%	63%	6%	3,293
Sex								
Male	20%	7%	4%	3%	4%	56%	7%	1,471
Female	16%	4%	1%	2%	2%	69%	5%	1,822
Total	18%	5%	3%	2%	3%	63%	6%	3,293

Table 6:Respondents by residence, sex and daily use of digital resources for health-related information per week

The use of digital resources for receiving health related information was also highly rated as not relevant in most of the counties. It was only in Grand Cape Mount that 14% of the population used digital resources for accessing health related information for more than once a day. In Sinoe County, 89% of the population saw the use of digital resources as not relevant when it comes to getting health related information. In Grand Kru and Gbarpolu counties, 85% and 82% of the population respectively found the use of digital resources for health-related information not relevant.

permeen								
	Less				More		Less	
	than	1-3 days			than	Not	than	
	once a	per	4-6 days	Once a	once a	relevant for	once a	
County	week	week	a week	day	day	me	day	Number
Bomi	53%	7%	1%	3%	1%	31%	5%	150
Bong	43%	6%	2%	4%	1%	41%	5%	300
Gbarpolu	9%	3%	3%	2%	1%	82%	1%	152
Grand Bassa	10%	6%	8%	5%	2%	65%	4%	221
Grand Cape Mt	35%	3%	8%	8%	14%	5%	27%	146
Grand Gedeh	4%	4%	3%	0%	1%	80%	8%	149
Grand Kru	3%	6%	3%	0%	1%	85%	2%	149
Lofa	7%	4%	1%	1%	0%	67%	20%	225
Margibi	14%	4%	4%	2%	3%	71%	2%	226
Maryland	17%	7%	4%	3%	4%	63%	2%	150
Montserrado	20%	9%	1%	1%	1%	61%	6%	673
Nimba	11%	2%	1%	1%	6%	74%	5%	302
Rivercess	23%	5%	3%	2%	1%	65%	1%	150
River Gee	7%	7%	1%	3%	5%	76%	1%	150
Sinoe	4%	1%	1%	3%	1%	89%	1%	150
Total	18%	5%	3%	2%	3%	63%	6%	3,293

Table 7:Respondents by county and daily use of digital resources for health-related information per week

The use of digital resources in getting health related information was also regarded not relevant to the population by age. Only 5% of those aged 18-19 years used digital resources once a day and 3% of those 30 - 39 years used digital resources once a day to get health related information. On the contrary, 74% of those aged 60 years and older considered the use of digital resource for accessing health related information as not relevant. Also, 62% of individuals 18-19years old termed the use of digital recourses for health-related information as not relevant.



Figure 35: Respondents by age and daily use of digital resources for health-related information per week

5.3 Status of searching for information on health or medical topic

The HLS data showcase the differences in search behavior between male and female respondents as well as urban and rural residents. The overall percentage of population that has searched for information on health was 26% by sex and by residence. Accordingly, 31% of individuals living in urban areas have searched for medical or health-related information compared to 16% for those residing in rural areas. On the other hand, 34% of male respondents have looked for medical or health-related information from any source, while only one-fifth (20 percent) of female respondents have done so as mentioned in figure 36.



Figure 36: Respondents by residence, sex and search for information about health or medical topics from any source

At the county level, Grand Bassa (43 percent) experienced the highest percentage of those who searched for information about health or medical topics from any source while Sinoe County had the lowest (8 percent) searches for information regarding health or medical topics. However, Lofa, Rivercess, and Nimba Counties had similar pattern as regards those who have searched for information. Among the respondents interviewed in Bong County, 23% sought health or medical information while 28% searched for health or medical information in Gbarpolu County.



Figure 37: Respondents by county and search of information about health or medical topics from any source

Across all age groups, majority of respondents have never searched for health or medical information from any source. The percentage of respondents who have searched for information varies across age groups, with younger age groups generally having higher percentages of searchers compared to older age groups. For instance, the age groups 35-39 and 50-54 years have the highest percentage (32 percent each) of respondents who have searched for information, while the age group 75 years and above (14 percent) had the lowest percentage. However, 83% of individuals 60 years and older never searched. Furthermore, there is a trend of decreasing search behavior for health or medical information with increasing age.



Figure 38: Respondents by age and search for information about health or medical topics from any source

5.4 Respondents knowledge about health topic

Among urban and rural residents, it is at equilibrium (5% each) considered themselves very wellinformed. Individuals who are well informed in urban areas constitute 16% while rural areas account for 10%. However, those who are not well informed at all make up for 36% in the urban areas compared to 49% in the rural. For rural residents, the distribution is similar but with slightly lower percentages of those who consider themselves well-informed or very wellinformed. Similarly, there is a slightly higher percentages of those who consider themselves not so well-informed or not well-informed at all in rural than in urban localities.

Among males and females respondents, the differentials of individuals that are very well informed are 3%. The percentage of well-informed males constitute 19% compared to 10% of females. Furthermore, males' respondents who are not well informed at all account were 34% while females constitute 46%. Overall, the data suggests that regardless of residence or sex, a significant portion of the population is not well-informed about health topics, with relatively fewer individuals very well-informed. However, there are some slight differences between urban and rural areas, as well as between males and females. However, the general trend is that 81% of the population is not informed about health topics.



Figure 39: Respondents by residence, sex, and how well informed people consider themselves about health topics

Almost all of the county-level population, 81% is not well informed about health topics. The data showed that Grand Bassa (29 percent) and Maryland (16 percent) had the highest percentages of population that are very well informed. Bomi and Grand Cape Mount Counties each recorded 9% and 7% respectively while the rest of the 11 out of 15 counties had less than 6% respondents that are very informed about health topics.

Similarly, Grand Kru County (37 percent) reported the highest percentage of well-informed population while the second highest was found in Maryland County (25 percent). The rest of the 9 out of 15 counties each accounted for 14% or less of population that was well informed about health topics except Bong, Grand Cape Mount, Montserrado and Rivercess Counties. Overall, there are variations across counties in terms of how people perceive their level of information about health topics, with lesser people informed about health topics as shown in Figure 40.



Figure 40: Respondents by county and how well informed people consider themselves about health topics

Across all age groups, the majority of respondents rate themselves as either not so well or not well informed about health topics, with a combined total of 81% of respondents not informed. Relatively, few respondents (19 percent) across all age groups consider themselves "very well informed" about health topics. Generally, there is a trend of decreasing self-reported knowledge as age increases, particularly evident in the proportion of respondents who consider themselves "not well at all" informed. There are some fluctuations in the data across age groups, such as the relatively higher proportion of respondents aged 60 and over years who consider themselves "well informed" compared to adjacent age groups that is considered very well informed as mentioned in figure 41.



Figure 41: Respondents by age and how well informed people consider themselves about health topics

5.5 Confusion level of respondents' when reading and hearing about health topics

The distribution of population by residence showed that the majority of people in both urban and rural areas are very confused about health topics, with only a 4% difference. Urban areas have a slightly higher percentage of people who are somewhat confused (28 percent) compared to rural areas (27 percent). Interestingly, more females (35 percent) than males (24 percent) reported being very confused about health topics, whereas more males (25 percent) than females (18 percent) report being a little confused. Figure 42 indicates that 20% of respondents in urban areas were not confused, while 24% of males respondents were not confused.



Figure 42: Population by residence, sex and whether respondent read and hear a lot about health topics

The distribution of population at the county level showed that Lofa (47 percent), Bomi (49 percent), Nimba (50 percent), and Sinoe (55 percent) had a significant portion of the population reported being very confused about health topics. However, Grand Gedeh County (48 percent) has the highest proportion of those who were not confused, followed by Grand Bassa County (41 percent) while Sinoe County recorded the lowest percentage (2 percent). Grand Kru has the highest percentage (36 percent) of those who were little confused followed by Montserrado (30 percent) as shown in figure 43. River Gee (45 percent) and Rivercess (43 percent) reported the highest percentages of those who are somewhat confused. However, the rest of the 10 counties reported below 31% except Lofa, Sinoe, and Gbarpolu.



Figure 43: Population by county and whether respondent read and hear a lot about health topics

The age group 60years and older had the highest percentage (28%) of respondents who indicated that they were not at all confused about health topics while the age group 30-39 made up 25% of the second highest population that was not confused at all. However, the age groups 50-59 and 60 years and over reported the lowest (16% each) respectively. Further, the age group 20-29 reported the highest percentage (25%) of those who were little confused while 60 years and older accounted for the lowest percentage (9%). For those who were somewhat confused, 37% reported in the age group 18-19 years constituting the highest while the age group 60-69 reported the lowest (20%) of those who were somewhat confused. Additionally, for those who were very confused, the age group 60 years and older constitute the highest percentage (40%). The age groups 20-29 and 30-39 accounted for the lowest of those who were very confused with each age group constituting 25% and 24% of the respondents.





5.6 The state of sending health-related digital information

Typing a health-related message on a digital device was observed to be difficult in both urban and rural areas. For the urban communities, two-third (66 percent) of the population found it difficult to type health related message on a digital device. In the rural settings, more than three quarters (81 percent) had difficulties typing a health-related message on digital device. Relative to sex, little over one-third (36 percent) of males found it easy to type a health-related message using digital device while more than three quarters (76 percent) of females had difficulties in typing information on a device.



Figure 45: Respondents by residence, sex and easiness or difficulty in typing health-related digital information

In the various counties, Bomi and Lofa faced the highest (88 percent) difficulties in typing a health-related message on a digital device. The second and third highest were Grand Gedeh (87 percent) and Nimba (86 percent). Only a little over half (51 percent) of the population in Grand Cape Mount found it easy to type health related message on a digital device. In Margibi also, close to half (47 percent) of the population had easy means of typing health related message using a digital device.





It was also difficult for people interviewed to type a health-related message on digital device in the different age groups. For population aged 60 years and over, 79% had difficulties in typing health related message on digital device. None of the ages from 18 years to 60 years and above had up to half (50%) easy means of typing health related message on digital device. Those aged 18-19 years had 37% easy means of typing health related message on digital device. People in the age groups 20 - 29 years, and those aged 30 - 39 years had the second highest easy means of typing health related message on a digital device in the population.



Figure 47: Respondents by age and easiness or difficulty in sending health-related digital information

6.0 Chronic Disease or Long-lasting Health Problem

Chronic diseases are long lasting conditions that typically progress slowly and may require ongoing management and treatment. It includes heart disease, diabetes, cancer and asthma. Managing chronic diseases often involves lifestyle changes, medication, and regular medical monitoring.

6.1 Health literacy and health-related quality of life as a mediator for health costs

Findings from the HLS shows that nearly two-third (65 percent) of the respondents indicated that their health is good or very good while 10% said their health is either bad or very bad. Figure 48 depicts the percentage of population by respondents' health in general.



Figure 48: percentage of population by respondents' health in general

Nearly a quarter (22 percent) of the respondents said they have one or more chronic disease or a long-lasting health problem. Figure 49 presents the percentage of respondents by whether they have a chronic disease or a long-lasting health problem.



Figure 49: Percentage of respondents by whether they have a chronic disease or a long-lasting health problem

6.2 Proportion of respondents with chronic disease or a long-lasting health problem

Urban respondents recorded the highest (79 percent) percent reporting of no chronic disease or long-lasting health problem compared to rural dwellers (77 percent). Those who reported having more than one chronic disease or long-lasting health problem stagnated at 2% for urban and rural residents. Females respondents account for the higher proportion (79 percent) compared to 77% for males of those having no chronic disease or long-lasting health problem. However, males' respondents accounted for the higher proportion (3 percent) of those who reported more than one chronic disease or long-lasting health problem compared to females (2 percent). The highest percentage of respondents reporting multiple chronic diseases or long-lasting health problems was consistently 3%, while the lowest percentage was 2% for all categories of respondents.



Figure 50: Respondents by residence, sex and status of chronic disease or a long-lasting health problem

Grand Gedeh had the highest proportion of respondents reporting no chronic disease or longlasting health issue (93 percent) while Nimba had the lowest proportion (60 percent). On the other hand, Nimba County had the highest percentage of respondents reporting one chronic disease or long-lasting health issue (35 percent) while Grand Gedeh recorded the lowest (7 percent). Moreover, Grand Cape Mount had the highest percentage (8 percent) of respondents reporting more than one chronic disease or long-lasting health issue, while Grand Bassa, Grand Gedeh, and Grand Kru never experienced long-lasting health issue.



Figure 51: Respondents by residence, sex and status of chronic disease or a long-lasting health problem

The percentage of respondents with no chronic disease tends to decrease with age, with 18-19 years and 20-29 years reporting the highest proportion (86 percent), while 60 years and older group accounted for the lowest proportion (59 percent). The percentage of respondents with one chronic disease shows variations across different age groups, with the highest percentages of aged groups 50-59 years and 60 years and over (29 percent and 33 percent respectively). The lowest of 1% for early age groups (18-39 years). The percentage of respondents with more than one chronic disease is highest (33 percent) for the oldest age group (60 years and older). This situation as indicated in figure 52 seems to justify that younger people have less chronic diseases compared to older respondents in Liberia.



Figure 52:Respondents by residence, sex and status of chronic disease or a long-lasting health problem

6.3 Impairment of life activities by chronic illness

Over two-third (68 percent) of the respondents reported that they are not impaired by chronic illness, and a quarter of the respondents mentioned moderately impaired by chronic illness. Figure 53 depicts the percentage of respondents by the extent to which they are impaired by chronic illness.



Figure 53:percentage of respondents by the extent to which they are impaired by chronic illness

The proportion of respondents among urban and rural residents who are not at all impaired by chronic illness in activities of normal everyday life stagnated at 68% each. The differential of respondents who are strongly impaired among urban/rural residents is 1% with rural being higher than urban. Males' respondents constituted a higher proportion (25 percent) of those who were

not at all impaired compared to female respondents (27 percent). Further, the percentage of males and females respondents who were strongly impaired by chronic illness in performing activities of the normal everyday life was 6% respectively.

Overall, females (15 percent) tend to report slightly higher levels of moderate impairment compared to males (10 percent). Impairment was higher among urban respondents than rural respondents as indicated in figure 54.



Figure 54:Respondents by residence, sex and extent of chronic illness impairment for normal everyday life activities

The data on chronic illness showed that Grand Gedeh had the highest percentage (95 percent) of respondents that were not impaired at all by chronic illness, followed by Rivercess (87 percent) and Grand Bassa (89 percent) respectively. Margibi County had the lowest percentage of respondents that were not at all impaired by chronic illness in activities of normal everyday life. Furthermore, Grand Cape Mount (21 percent) constituted the highest proportion of respondents that were strongly impaired by chronic illness in activities in Grand Gedeh. Figure 55 presents the percentage of respondents by county and the extend of chronic illness impairment for normal everyday life activities.



Figure 55: Respondents by county and extent of chronic illness impairment for normal everyday life activities

The level of impairment due to chronic illness seems to increase by age of respondents. Hence, the highest level of moderate impairment (35 percent) was observed in the oldest age group (60 years and older) while the highest respondents that were not impaired by chronic disease were aged 18-19years and 20-29 years (75 percent). Additionally, age group 60 years and older has the highest percentage (15 percent) of those who were 'strongly impaired' by chronic illness in activities of normal everyday life. Figure 56 depicts the distribution of respondents by age and extent of chronic illness impairment for normal everyday life activities.



Figure 56: Respondents by age and extent of chronic illness impairment for normal everyday life activities

6.4 Severeness of health problems in limited human activities

The HLS data showed that urban respondents had a slightly higher percentage of severe limitations compared to rural respondents. The not applicable category (likely indicating respondents without severe health problems) is higher among urban (13 percent) respondents compared to urban (8 percent) respondents. Figure 57 depicts the distribution of respondents by residence, sex and how health problems limited the activities carried out in the last 6 months.

Figure 57: Respondents by residence, sex and how severe health problems limited the activities carried out in the last 6 months



The variations in how health problems affected respondents across counties revealed that Grand Cape Mount had the highest percentage (22 percent) of severely limited respondents while Grand Gedeh and Sinoe Counties had the lowest proportion, with each county reporting 1%. Further, Bong County constituted the highest proportion (41 percent) of respondents who were limited but not severely. Moreover, Bomi accumulated the lowest proportion (9 percent) of respondents that were limited but not severely by health problems.

Additionally, Bomi had the highest percentage (75 percent) of respondents who were not limited, while Maryland had the lowest proportion (6 percent). Figure 58 shows the distribution of respondents by county and how sever health problems limited the activities carried out in the last six months.



Figure 58: Respondents by county and how severe health problems limited the activities carried out in the last 6 months

The highest proportion of respondents reporting severe limitation due to health problems was found in the age group 50 - 59 years and 60 and older at 11% each. The respondents aged 18-19 had the lowest proportion, with 7% respectively. Further, the highest proportion of respondents reporting some limitation but not severe also found in age group 60 years and older, at 34%. The highest proportion of respondents (48 percent) with no limitation due to health problems was in the age group 18 -19 years, while the lowest was in the age range 60 years and older (25 percent) as indicated in figure 59.



Figure 59:Respondents by age and how severe health problems limited the activities carried out in the last 6 months

7.0 Vaccination Literacy

Vaccination literacy refers to the knowledge, understanding, and awareness individuals have regarding vaccines, including their benefits, risks, and importance. It involves being informed about vaccine-preventable diseases, the science behind vaccines, and the role vaccines play in public health. Being vaccination literate helps people make informed decisions about vaccination for themselves and other communities.

7.1 Immunization

Immunization is the process of making a person immune or resistant to a particular infectious disease, typically by administering a vaccine. Vaccines simulate the body's immune system to recognize and fight specific pathogens, such as viruses or bacteria, without causing the disease itself. Immunization is a crucial tool in preventing the spread of infectious diseases and protecting individuals and communities from illness and complications. It's a cornerstone of public health efforts worldwide.

The HLS found high vaccination coverage in 12 out of 15 counties. The county with the lowest vaccination coverage is Grand Bassa (62 percent), followed by Bong. Figure 60 shows the percentage of respondents by whether children or someone in the family had any vaccination in the last five years.





The study found that 98% of respondents agreed that vaccination is important to protect themselves and their children and 97% think vaccines are safe. Table 8 present the percentage of respondent by how much they agree with statements regarding vaccination importance, safety and effectiveness.

Table 8: Percentage of respondent by how much they agree with statements regarding vaccination importance, safety and effectiveness

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Percentage of Respondents by how much they agree with the following statements on a scale								
from strongly agree to strongly disagree								
Description	Strongly agree	Agree	Disagree	Strongly disagree				
Vaccinations are important to protect myself and my children	48%	50%	1%	1%				
Overall I think vaccinations are safe	45%	52%	2%	1%				
Overall I think vaccinations are effective	42%	54%	3%	1%				
Vaccination is compatible with my religious beliefs	33%	49%	13%	5%				

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Regarding access to vaccination information, over half (58 percent) of respondents indicated that it is easy to find while 42% said it is difficult to find. Additionally, over two-third (68 percent) of the respondents mentioned that it is easy to understand why they need vaccination. Table 9 shows the percentage of respondents' access to information on recommended vaccinations, and whether it is easy to understand why you need vaccination?

Table 9: Percentage of respondents' access to information on recommended vaccinations, and	!
whether it is easy to understand why you need vaccination?	

Description	Very Easy	Easy	Difficult	Very Difficult
It is easy to find information on recommended vaccinations for you				
or your family?	13%	45%	37%	5%
It is easy to understand why you or your family may need vaccinations?	14%	54%	27%	4%
It is easy to judge which vaccinations you or your family may need?	12%	42%	41%	6%
It is easy to decide if you should have a flu vaccination?	10%	39%	43%	8%

8.0 Health Literacy

8.1 Navigational Health Literacy

Navigational health literacy refers to the ability of individuals to access, understand, and use health information effectively in order to make informed decisions about their healthcare, including navigating the complexities of the healthcare system. It involves skills such as finding and evaluating health information, understanding health insurance, and knowing how to access healthcare services. Essentially, it's about being able to navigate the healthcare landscape to make informed choices about one's health.

8.2 Relevance

Navigational health literacy refers to the ability to find and navigate health information and services. It's relevant because in today's information rich society, individuals need to be able to locate accurate health information to make informed decisions about their health. Liberia with a huge illiterate population and limited access to healthcare (e.g.; Information, physical and financial) it is difficult for the population to navigate. With the proliferation of online health resources, being able to navigate this information landscape effectively is crucial for promoting health and preventing misinformation related harm.

8.3 Definition and Instrument

Navigational HL is defined as 'people's knowledge, motivation and skills to access, understand, appraise and apply the information and communication in various forms necessary for navigating healthcare systems and services adequately to get the most suitable healthcare for oneself or related person'. The HL generic questionnaire administered during the HLS contained twelve items measuring self-perceived difficulties in accessing, understanding, appraising, and applying navigation related information primarily for selected tasks on navigating healthcare services.

8.4 Health Literacy Scores

The standardized score ranges from 0 to 100, with higher values referring to a higher level of General HL. The General HL scores indicate that 45.5% of the respondents have inadequate health literacy, 26.4% have problematic GHL, 23.8% of the respondents have sufficient HL and only 4.4% have excellent GHL. Figure 61 shows the percentage of respondents by level of general HL as measured by the HLS19-Q12.



Figure 61: Percentage of respondents by level of General HL as measured by the HLS19-Q12

The HLS19-Q47 data revealed that 44.2% of the respondents have inadequate health literacy, 34.8% have problematic health literacy and 17.2% have sufficient health literacy. Figure 62 presents the percentage of respondents by level of GHL as measured by the HLS19-Q47.



Figure 62: Percentage of respondents by level of General HL as measured by the HLS19-Q47

9.0 Conclusion and Recommendations

9.1 Conclusion

The HLS revealed that little over a quarter (26 percent) of the respondents ever search for information health about health. The HLS finding shows that individuals 25-39 years were more likely to search for information about health than any other age group. Eleven percent (11 percent) of people aged 25-39 years search for health information compared to one percent of people 65 years and above.

Nearly 80% of respondents said it was difficult to search online for health information, 80% said it was difficult to find exact information online, and 77% said it was difficult to understand information found online.

In a typical week, 18% of respondents use websites for getting health-related information, 17% use social media, including online forums for getting health-related information, 18% use a digital device related to health or healthcare, and 17% use a health app on their mobile phones for getting health-related.

Findings from the HLS show that nearly two-thirds (65 percent) of the respondents said their health is good, while 10% said their health is either very bad or bad. Nearly, a quarter (22 percent) of the respondents said they have one or more chronic diseases or long-lasting health problems. Over two-thirds (68 percent) of the respondents said they are not impaired, by chronic illness, and a quarter of the respondents mentioned being impaired moderately by chronic illness.

Regarding access to vaccination information, over half (58%) of respondents indicated that it is easy to find, while 42% said it is difficult. Additionally, over two-thirds (68 percent) of the respondents mentioned that it is easy to understand why they need vaccination.

The General HL scores indicate that 45.5% of the respondents have inadequate health literacy, 26.4% have problematic GHL, 23.8% have sufficient GHL, and only 4.4% have excellent GHL.

9.2 Recommendations

Recommendations

The suggested actions are proffer for consideration to increase health literacy in Liberia:

- The Government of Liberia addresses the core determinants of health, such as education, poverty, income, access to information, and health that impede the population from better health education;
- The Ministry needs to develop and implement a health communication strategy that will foster increased health literacy in Liberia;
- Clinicians need to ensure health talks are provided to patients or health services users daily;

- The Government of Liberia needs to increase access to reliable electricity and internet connectivity to increase the number of internet users and health information searches online;
- The Ministry of Health and its development partners must support health education and literacy by increasing awareness of the importance of general health literacy.

References

Liberia Institute for Statistics and Geo-Information Services, 2022 National Population and Housing Census

Worldbank.org: public>poverty">https://databankfiles.worldbank.org.>public>poverty

WHO Health Promotion Glossary (1998 and 2021):

World Health Organization. WHO global strategy on people-centered and integrated health services INTERIM report;2015. P. 1-50

			EAs by Place of Residenc			Actual
#	County	Number of EAs	Urabn EAs	Rural EAs	Number of Households	Hoseholds interviewed
1	Bomi	6	3	3	150	150
2	Bong	12	9	3	300	300
3	Gbarpolu	6	2	4	150	152
4	Grand Bassa	9	5	4	225	222
5	Grand Cape Mt	6	4	2	150	146
6	Grand Gedeh	6	3	3	150	149
7	Grand Kru	6	4	2	150	149
8	Lofa	9	5	4	225	225
9	Margibi	9	7	2	225	226
10	Maryland	6	4	2	150	150
11	Montserrado	27	20	7	675	673
12	Nimba	15	12	3	375	302
13	Rivercess	6	4	2	150	150
14	River Gee	6	4	2	150	150
15	Sinoe	6	4	2	150	150
	Total	135	90	45	3,375	3,294

Annex A: Number of EAs and Households interviewed by County