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Liberia Human Capital Assessment

from Constraints to Opportunities

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Table of Contents

Figures

Tables

Boxes

Frequently Used Abbreviations and Acronyms

ACLED	Armed Conflict Location and Event Data Project
AfT	Agenda for Transformation
BER	Better Employment Rate
CRPD	Committee on the Rights of Persons with Disabilities
CSA	Civil Service Agency
CSO	Civil Society Organization
DHS	Demographics and Health Survey
ECE	Early Childhood Education
ECOWAS	Economic Community of West African States
EGRA	Early Grade Reading Assessment
GDP	Gross Domestic Product
GoL	Government of Liberia
HC	Human Capital
HCI	Human Capital Index
HCP	Human Capital Project
HIES	Household Income and Expenditure Survey
HLO	Harmonized Learning Outcome
HOI	Human Opportunity Index
ICT	Information and Communication Technology
IFMIS	Integrated Financial Management Information System
LD	Liberian Dollar
LHSR	Liberia Household Social Registry
LIC	Low-Income Country
M&E	Monitoring and Evaluation
MFPD	Ministry of Finance and Development Planning

MGCSP	Ministry of Gender, Children and Social Protection
MoE	Ministry of Education
MoH	Ministry of Health
MoL	Ministry of Labor
NASSCORP	National Social Security and Welfare Corporation
NCD	National Commission on Disabilities
NGO	Non-Governmental Organization
PAPD	Pro-Poor Agenda for Prosperity and Development
PDIA	Problem-Driven Iterative Adaptation
SCORE	Social Cohesion and Reconciliation Index
SEBJ	Share of Employment in Better Jobs
SGBV	Sexual and Gender-Based Violence
TVET	Tertiary Education and Technical and Vocational Education and Training
UHCI	Utilization Human Capital Index
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Emergency Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WASSCE	West African Senior School Certificate Examination
WB	World Bank
WBG	World Bank Group
WDI	World Development Indicator
WHO	World Health Organization

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Executive Summary

1. Liberia presents some of the worst human capital (HC) outcomes in the world, which is reflected in its Human Capital Index (HCI) score of only 0.32 (of a potential 1.0). This means that a child born in Liberia today can be expected to be only 32 percent as productive when they grow up as they could have been had they had enjoyed complete education and full health. In addition to resulting in lost potential, this is expected to have significant consequences in terms of economic growth—Liberia's gross domestic product (GDP) per capita could be almost 3.1 times higher if the country reached the HCI benchmarks of education and health, and notably higher if the benchmark were the Utilization-Human Capital Index. This is equivalent to 2.3 percentage points of extra annual growth over the next 50 years.

2. Liberia's low HCI reflects multiple challenges cutting across education, health, and nutrition outcomes. For example, 7 of 100 children born today in Liberia will not survive to the age of 5, situating the country in the lowest quartile of the global distribution. Moreover, 30 of 100 children under the age of 5 are stunted and, consequently, at risk of cognitive and physical limitations. The country's education outcomes are among the worst in the world: a child who starts school at age four can expect to complete 4.2 years of schooling by her/his 18th birthday. Even more concerning, when this value is adjusted for what children actually learn, it goes down to only 2.2 years.

3. These challenges do not cease in adulthood. In fact, 22 percent of 15-year-old Liberians will not survive until the age of 60, reflecting the health risks that the country faces. These values represent national averages but hide vast disparities across income groups, rural/urban areas of residence, and counties (the formal term for the Liberian polity's highest-level subnational entities). Women and people with disabilities face additional challenges to build and use their HC. Moreover, many citizens who manage to acquire adequate skills and enjoy better health and education outcomes struggle in the labor market, as they fail to find productive jobs and thus contribute to economic growth. The COVID-19 pandemic has exacerbated these challenges.

4. The World Bank worked in close collaboration with the Government of Liberia (GoL) to assess the most relevant HC outcomes observed in the country and their causes. This report is one of the outcomes of this assessment. It analyzes the main causes of the low HC outcomes through a problem-driven iterative approach (PDIA). The assessment identifies both the leading causes of the outcomes and potential entry points to address the challenges, without following a sectoral approach. This methodology serves to analyze complex and multisectoral issues, such as drivers of HC outcomes. The iterative nature of the methodology was nurtured by multiple consultations with government officials and other stakeholders, as well as by a comprehensive review of the recent literature.

5. The assessment revealed the most relevant bottlenecks for HC accumulation and utilization in Liberia, including the following:

   - **Weak governance:** the existing governance hinders an effective implementation of HC-related policies and programs. One of the main challenges is the lack of a whole-of-government approach and the fragmentation of efforts toward HC development. More specifically, Liberia struggles to sustain efforts to build HC across political cycles, coordinate across government agencies, and use the available evidence to design interventions.

- **Ineffective service delivery:** the GoL's capacity to design and implement programs to promote HC development is suboptimal. Relevant ministries lack adequate human and financial resources and proper knowledge to address issues that affect HC development. Additionally, different sectors suffer from low availability of inputs to ensure service delivery. For example, Liberia has the fewest physicians per capita of any country in the world, at just 0.014 per 1,000 people, according to data from 2015 (World Bank, 2021a). The challenges go beyond quantity and affect the quality of services. In the education system, for instance, only 61 percent of secondary education teachers are trained.

- **Demographic pressures:** the relatively high fertility rate (4.3 births per woman, or twice the global average) puts pressure on the expansion of basic HC-related services. However, the demographics show a window of opportunity for Liberia to benefit from a large share of the population that can contribute to productivity. Three important challenges might preclude Liberia from benefitting from a demographic dividend: (a) low availability of good-quality jobs, (b) low qualification of workers, and (c) limited empowerment of women.

- **Low and inefficient spending:** public spending on HC-related sectors is very low, especially when analyzed on a per capita basis. This issue is impacted by low levels of domestic resources mobilization. Liberia also faces efficiency challenges. In general, the outcomes achieved tend to be lower than what would be expected for the country's expenditure levels, and budget execution tends to be low.

- **Socio-cultural norms:** socio-cultural norms hinder Liberian citizens from acquiring more HC. As an example, social norms reinforce women's role as mothers and domestic caregivers, which crowds out productive employment. Women are expected to take care of most household tasks, including cooking, fetching wood and water, cleaning, childbearing and rearing, and taking care of sick or elderly family members.

- **Demand-side constraints:** the large poverty level observed in the country, which affects more than half of the population, prevents larger households' expenditures for accessing HC-related services. As an example, 13 percent of surveyed primary school age (6 to 11 years old) children who have never attended primary school reported financial constraints or having no money as main barriers for enrolling in schools. The lack of proper informational on services poses additional challenges on the demand side.

- **Fragility context:** Liberia is a fragile state that has not fully recovered from its two devastating civil wars and from multiple exogenous and domestic policy shocks since 2014 (World Bank, 2020b). This fragile context affects the development and utilization of HC in the country. The most direct effect was experienced through the loss/diminution of human resources. Liberia's civil wars killed 10 percent of the population, resulted in a large number of disabled persons, displaced a majority, and led to tens of thousands of people being forcibly recruited into combat. Although Liberia is no longer in active conflict, there are still many manifestations of fragility, conflict, and violence that affect HC accumulation and utilization, including: (a) attacks on health and education facilities; (b) an extremely weak institutional setting; (c) low interpersonal trust; and (d) widespread interpersonal violence.

- **The role of sectors other than education, health, and social protection:** HC outcomes in Liberia are shaped by many sectors that go beyond those typically associated with human development. For instance, macroeconomic constraints limit fiscal space to invest in HC. Weak water and sanitation infrastructure in schools and health facilities has also clear effects on health and education outcomes. The lack of safe roads reduces people's lifespans in a country where the mortality rate associated with road traffic accidents is 36 per 100,000 people, the highest rate in the world. The low levels of electricity in schools and health facilities make public service delivery extremely challenging. Finally, the low level of connectivity observed in the country is an obstacle to innovations and digital development.

6. The methodology used to assess Liberia's HC challenges and opportunities incorporated a political economy analysis, including a mapping of the main stakeholders who play a role in HC development in the country. The mapping entailed a combination of methodologies: one developed by the World Bank and another prepared by the Overseas Development Institute. The political economy analysis also identified the main regulations that govern HC development in Liberia, as well as the informal rules that affect the interaction among the multiple

stakeholders. This report emphasizes that government organizations—although heterogeneous—tend to have relatively high levels of power to shape the HC agenda, largely reflecting both their political capital and their (varied) interest in HC development. Internal advocacy from organizations with high interest could help to have other voices heard—especially of those with high power, but medium interest—which could be an optimal strategy for promoting HC accumulation and utilization. Moreover, government efforts tend to be fragmented, so that creating organizational structures to incentivize a more unified approach to HC development seems to be a rewarding path forward.

7. Based on the analysis of the challenges, their causes, and the institutional environment for HC accumulation, the report identifies key opportunities for the GoL to improve its HC outcomes. These challenges, causes, and opportunities comprise the theory of change for promoting HC in Liberia that is presented in the report. The assessment does not attempt to provide a detailed description of programs that should be implemented. Instead, it presents a range of feasible recommendations to promote HC. Among the main recommendations, the report highlights the following:

   - **A whole-of-government approach** could strengthen the GoL's capacity to achieve effective and efficient results. Such an approach should improve the horizontal and vertical coordination across government agencies.

   - **Promoting a green approach to HC development:** a comprehensive HC development strategy for Liberia must support both mitigation and adaptation efforts to address climate change (with a focus on the latter), so as to better protect people. The goal would be to shift toward crops that can ensure food production considering the current climate vulnerabilities, enhance health capabilities to respond to climate-induced diseases, and develop safety nets to build climate resilience.

   - **Fostering women's empowerment:** strengthening women's agency is critical for Liberia to increase its HC outcomes. Hence, the assessment proposes an approach that follows the guidelines of the Africa Human Capital Plan: empower, educate, and employ women, as well as enhance health services, including sexual and reproductive health.

   - **Addressing fragility and the impacts of the COVID-19 pandemic:** the assessment proposes a focus on building institutional capacity and improving accountability by increasing citizens' participation in HC-related programs. It also highlights the importance of protecting key infrastructure for the delivery of basic services and of reducing interpersonal violence.

   - **Addressing financial constraints:** the challenges that Liberia faces call for a comprehensive strategy to increase the resources and the efficiency of public spending on HC-related programs. The assessment proposes the use of iterative public expenditure and institutional reviews, the improvement of coordination mechanisms across government agencies, as well as the increase of resource mobilization through better tax administration systems and the use of health taxes.

- **Using technology and innovations:** to harness the full potential of technological innovations, Liberia should expand Internet connectivity, carefully avoiding the expansion of current equity gaps. Thus, the assessment builds on the Africa Human Capital Plan and proposes an approach that puts people at the center, is context-specific, and prioritizes work-enhancing technologies.

- **Addressing demand-side constraints:** expanding safety nets in a sustainable manner, and scaling up communication, advocacy, and awareness campaigns are important steps going forward. Information gaps should be addressed by involving communities to increase access to, and uptake of, social services.

8. This report also lays the foundation for the preparation of a national strategy for HC development in Liberia. It advocates a strategic framework that includes key elements such as (a) a vision for efficient and properly funded HC measures that are fundamental for an equitable and sustainable development model, as well as (b) a mission to accomplish inclusive access to quality education, health, nutrition, and social protection services that will foster economic growth by 2030. The framework includes strategic measures for (a) expanding collaboration through a whole-of-government approach, (b) enhancing institutional capacity, and (c) increasing incentives. Strategic objectives are also presented, including the overall goal of increasing Liberia's HCI from 0.32 to 0.39 by 2030.

9. Liberia presents multiple and complex challenges to ensure that every child is ready to learn, acquires real knowledge in the classroom, and enjoys a healthy and productive life. Understanding the multiple constraints is one of the first steps toward a context in which a national HC development strategy can contribute to a green, resilient, and inclusive development model for the country. In short, this report sheds light on Liberia's HC challenges and offers avenues for the GoL to address them.

Chapter I.

Introduction

1. Liberia is a fragile state that has not fully recovered from its two devastating civil wars (1989-1997 and 1999-2003). Among its multiple challenges, Liberia suffers from some of the world's lowest human capital outcomes. Human capital (HC) consists of the knowledge, skills, and health that people accumulate throughout their lives, enabling them to realize their potential as productive members of society (World Bank, 2018b). Liberia's Human Capital Index (HCI) is 0.32 (of a potential 1.0), one of the lowest globally, as discussed in Chapter II. The challenges are prevalent across the education, health, and social protection sectors, but also range across many other sectors that impact HC accumulation.

2. With these challenges, however, come opportunities. Beyond the intrinsic value of promoting an individual's potential and productivity, efficient investments in HC foster sustainable and inclusive economic development. This is especially true in the context of a global economy in which between 10 and 30 percent of per capita gross domestic product (GDP) differences is attributable to cross-country differences in HC (Hsieh and Klenow, 2010).

3. HC investment also has a direct link to poverty reduction, both at the individual and collective levels. Recent evidence shows the critical role that HC plays in preventing the intergenerational transmission of poverty (Wantchekon et al., 2015). But to invest in HC in an efficient way, it is first necessary to understand the main challenges for HC accumulation and their causes.

4. This report is one of the outcomes of a HC assessment conducted by the World Bank Group in close collaboration with the Government of Liberia (GoL) and relevant stakeholders. It aims to contribute to the design of policies that can foster HC accumulation, so as to improve the quality of life of the almost 5 million Liberians and that of many generations to come. It was prepared through extensive consultations with representatives of the following governmental and non-governmental organizations: (a) Ministry of Finance and Development Planning, (b) Ministry of Education, (c) Ministry of Health, (d) Ministry of Gender, Children and Social Protection, (e) Liberia Water and Sewer Corporation, (f) Adara Research and Management Consultancy, (g) Education NGO Forum, (h) Last Mile Health, (i) UNESCO, (j) UNICEF, and (k) USAID. The objective of this HC assessment and the organization of this report are presented below.

Objective of the Assessment

5. In comprehensively assessing HC in Liberia, this report (a) analyzes HC outcomes in the country, (b) describes the related enabling environment and the relevant institutional arrangements, and (c) identifies the main factors that account for poor outcomes, as well as the key opportunities for the country to improve its HC and thus promote sustainable and inclusive economic growth.

6. The report constitutes one of the first assessments produced for Sub-Saharan Africa within the context of the Human Capital Project (HCP), a global effort to accelerate more and better investments in people for greater equity and economic growth. The report reflects the three main pillars of the HCP: the Human Capital Index (HCI), measurement and research,

and country engagement (see Box 1). More specifically, the report first focuses on some HCI indicators and identifies the main causes of the low outcomes shown. Second, the report contributes to the measurement and research agenda by providing a clear assessment of HC in Liberia. Finally, the report also expands engagement with multiple stakeholders in Liberia to tackle the country's most pressing challenges.

7. More broadly, the report also contributes to one of the main game-changers of the Africa Human Capital Plan (see Box 1): advancing research and advocacy to strengthen the knowledge base and the demand side of HC. All the important game-changers delineated in the Africa Human Capital Plan are represented in the analysis that is part of the following chapters. In particular, the report emphasizes (a) the demographic trends underpinning Liberia's challenges, (b) the contextual relevance of Liberia's fragility, (c) the potential of technology and innovations to accelerate progress, and (d) the need to pursue a whole-of-government approach to invest in HC in a sustainable and efficient manner.

Box 1. The Human Capital Project and the Africa Human Capital Plan

The HCP was developed by the World Bank Group in 2018. It is a global effort to accelerate more and better investments in people for greater equity and economic growth. It aims to create the political space for national leaders to prioritize transformational investments in health, education, and social protection. Its objective is to achieve rapid progress toward a world in which all children are well-nourished and ready to learn, can attain real learning in the classroom, and can enter the job market as healthy, skilled, and productive adults. It has the following three pillars:

- The HCI, which quantifies the contribution of health and education to the productivity of the next generation of workers. Countries are using it to assess how much income they forego because of HC gaps, and how much faster they can turn these losses into gains if they act now.
- To complement the index and help countries take effective action, a robust measurement and research effort is underway. Within countries, credible measurement of education and health outcomes sheds light on what works and where to target resources.
- Country engagement based on a "whole-of-government" approach, which best helps countries tackle the critical barriers to developing their HC. This approach encourages high-level leadership across time, connecting the dots between sectoral programs and strengthening the evidence base. The work with countries emphasizes efficiency and quality, policy reforms, and domestic resource mobilization, so that governments aren't just spending more—but are spending better.

In the context of the HCP, the Africa Human Capital Plan was released in 2019. This plan sets out clear targets and commitments to boost Sub-Saharan Africa's potential through its HC. These include a drastic reduction in child mortality to save 4 million lives, averting stunting among 11 million children, increasing learning outcomes for girls and boys in school by 20 percent, providing social protection to 13 million more people, reducing adolescent fertility rates by empowering women, and improving sanitation practices. The plan identifies several game-changers to increase HC outcomes in the region, including:

- Scaling up financing and policy reforms: increasing allocation and efficiency of spending on HC is needed to achieve results.
- Investing in women's empowerment and demographic change: empowering women and girls as agents of socio-economic change is fundamental to realizing HC gains.
- Addressing fragility and conflict: protecting and preventing the loss of life in fragile and conflict settings and supporting displaced communities to increase HC must be a major focus in the region.
- Leveraging technology and innovation: harnessing the opportunities that technology and innovation offer can accelerate improvements in HC outcomes and productivity in many sectors.
- Building knowledge and partnerships: the World Bank and its development partners are joining forces to fulfill the potential of Africa's greatest resource—its people.

8. The Liberia HC assessment sheds light on the complex nature of Liberia's HC challenges, as well as opportunities to address these challenges through a holistic approach. Critically, the assessment confronted data constraints that hindered a more granular analysis of some of the key HC bottlenecks and outcomes, as explained in Chapter II.

Organization of the Report

9. Chapter II describes Liberia's HC outcomes, with a focus on the main components of the HCI, as well as on the recently launched utilization-adjusted human capital index (UHCI). The intent is to provide an overview of the complex relationships among many relevant outcomes while highlighting the gaps that underscore the unrealized potential for the country's economic development. The indicators were analyzed using data disaggregated by region, socio-economic groups, age cohorts, and gender, to the extent possible given data constraints. When available, longitudinal data is presented to show main trends. In addition, the chapter offers

some comparisons with other countries to show the relative position of Liberia within Sub-Saharan Africa. In both instances, data gaps are highlighted to guide future endeavors that could improve data availability for better decision-making.

10. Chapter III explores the main factors that inhibit sustainable and equitable HC formation in Liberia. In doing so, quantitative methods were not used to identify the most important bottlenecks, primarily because of the limited availability of data. Instead, the chapter follows an adaptation of a more qualitative methodology called "problem-driven iterative adaptation" (PDIA), which disaggregates complex, multifactorial issues into their root causes and identifies entry points for possible solutions—without however providing a precise estimate of the magnitude of each factor with respect to the ultimate HC outcome. The original methodology was developed by the Center for International Development at Harvard University to guide the implementation of complex solutions to problems (Center for International Development, 2021). The main bottlenecks are presented as part of the theory of change for promoting HC in Liberia that is described in Chapter III.

11. Chapter IV provides an overarching institutional analysis and assesses key policies, laws and regulations, governance and accountability structures, and implementation capacity that collectively affect HC outcomes in Liberia. The chapter follows a political economy analysis: it identifies the main actors and the primary rules—formal and informal—governing their functions and interactions.

12. Chapter V summarizes the main opportunities for Liberia to enhance HC outcomes. Building on the preceding analysis of the gaps, bottlenecks, and political economy, the chapter provides a menu of practicable recommendations for HC development in Liberia. It identifies opportunities for policies and measures to foster HC that are possible given the current institutional environment.

Chapter II.

Liberia's Human Capital Challenges

13. This chapter presents the most relevant HC outcomes observed in Liberia through a comprehensive analysis of limited data disaggregated by socio-economic groups, age cohorts, gender, and counties (the formal term for the Liberian polity's highest-level subnational entities). The analysis includes the HCI and its main components, as well as the UHCI. When available, longitudinal data is presented to highlight trends. This chapter also compares some key Liberian HC outcomes with those of other Sub-Saharan African countries. It concludes with an analysis of the impacts of the COVID-19 pandemic on Liberian HC outcomes.

The Human Capital Index as a Measure of Human Capital

14. To measure Liberia's HC outcomes, the report focuses on the HCI, which measures the amount of HC that a child born today can expect to attain by age 18, given the risks of poor health (including nutrition) and education that may prevail in the country where s/he lives. The HCI is designed to highlight how improvements in current health and education outcomes shape the productivity of the next generation of workers, assuming that children born today experience over the next 18 years the educational opportunities and health risks that children of this age currently face.

> **The HCI measures the amount of HC that a child born today can attain by age 18 considering the risks of poor health and education prevailing in the country where s/he lives.**

15. The HCI measures key points along the trajectory from birth to adulthood of a child born today. In the poorest countries in the world, there is a significant risk that the child does not even survive to her/his fifth birthday. Even if s/he does reach school age, there is a further risk that s/he does not start school, let alone complete the full cycle of 14 years of school from pre-school to Grade 12 that is the norm in highly developed countries. The time s/he does spend in school may translate unevenly into learning, depending on the quality of teachers and schools s/he experiences. When s/he reaches age 18, s/he carries with her/his lasting effects of poor health/nutrition in childhood that limit her/his physical and cognitive abilities as an adult.

16. The HCI quantifies the key stages in this trajectory and their consequences for the productivity of the next generation of workers, with these three components:

- **Component 1:** survival from birth to school age, which is calculated as the complement of the under-5 mortality rate. The under-5 mortality rate is the probability of a child born in a specified year dying before reaching the age of 5 if subject to current age-specific mortality rates. It is frequently expressed as a rate per 1,000 live births, in which case it must be divided by 1,000 to obtain the probability of dying before age 5. Under-5 mortality rates are calculated by the United Nations Interagency Group for Child Mortality Estimation based on mortality as recorded in household surveys and vital registries.

- **Component 2:** expected years of learning-adjusted school, which combines information on the quantity and quality of education. The quantity of education is measured as the number of years of school a child can expect to attain by age 18, given the prevailing pattern of enrollment rates across grades. The quality of education reflects ongoing work to harmonize test scores from major international student achievement testing programs. These are combined into a measure of learning-adjusted school years using the conversion metric proposed in the World Bank's 2018 World Development Report.

- **Component 3:** health. In the absence of a single broadly accepted, directly measured, and widely available metric, the overall health environment is captured by two proxies: (a) adult survival rates, defined as the fraction of 15-year-olds that survive until age 60, and (b) the rate of stunting for children under age 5. Adult survival rates are calculated by the UN Population Division for all countries, and can be interpreted as a proxy for the range of fatal and non-fatal health outcomes that a child born today would experience as an adult if current conditions prevail into the future. Stunting is broadly accepted as a proxy for the pre-natal, infant, and early childhood health environment, and so summarizes the risks to good health that children born today are likely to experience in their early years with important consequences for health and well-being in adulthood.

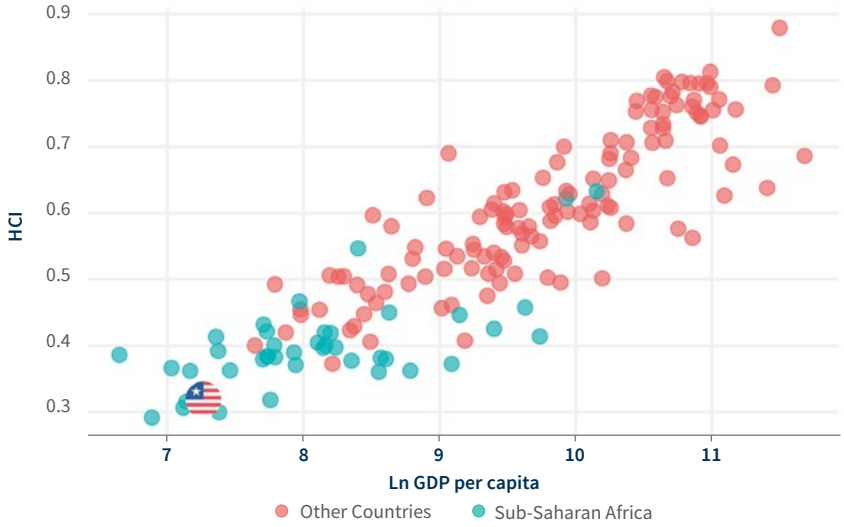
17. The HCI is measured in terms of the productivity of the next generation of workers, relative to the benchmark of complete education and full health. This gives the units of the index a natural interpretation: a value of X for a particular country means that the productivity as a future worker of a child born in a given year in that country is only a fraction X of what it could be under the benchmark of complete education and full health. This can be decomposed into the contributions of the three components of the HCI, each of which is also expressed in terms of productivity relative to the benchmark. Multiplied together, they provide the overall HCI. Differences in HC have large implications for the productivity of the next generation of workers. The 2018 version of the HCI was constructed for 157 countries; the most recent version covers 174 countries.

Liberia's HCI

18. Liberia's 2020 HCI is 0.32, which means that a child born in Liberia today can be expected to be only 32 percent as productive when they grow up as they could have been had they had enjoyed complete education and full health. An explanation on the HCI and a comparison with other countries can be found in Figure 1. In addition to resulting in lost potential, this is expected to have significant consequences in terms of economic growth: Liberia's GDP per capita could be almost 3.1 times higher if the country reached the benchmarks of education and health (see a correlation between the HCI and the GDP in Figure 1). This is equivalent to 2.3 percentage points of additional annual economic growth over the next 50 years.

Liberia's 2020 HCI is 0.32 (of a potential 1.0), which represents a lost opportunity for growth.

Figure 1. Liberia's Human Capital Index Compared to Other Countries (2020)



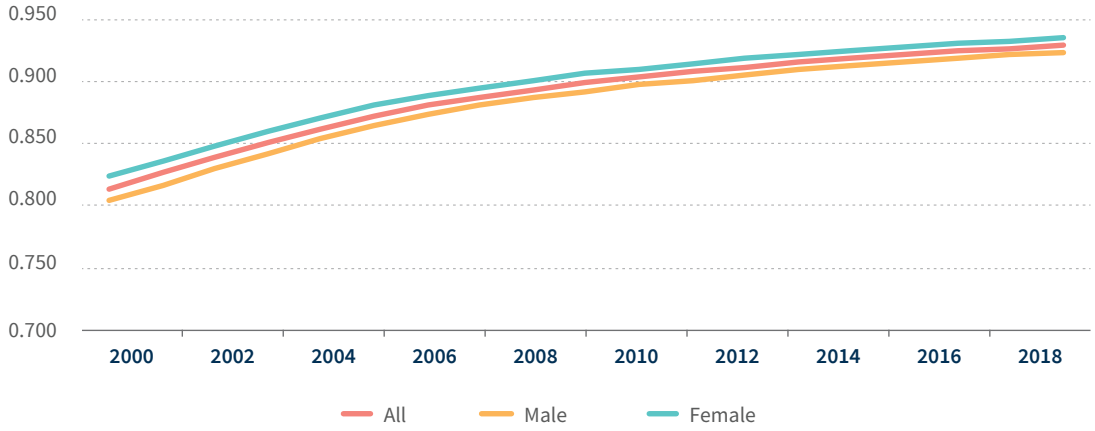
Source: HCI, 2020.

19. Liberia's HCI has not changed in the last two years, and data to calculate the HCI before 2018 are not available. The gender disaggregation shows that the HCI is slightly higher for girls than for boys. This is common across countries, but it does not imply that girls suffer fewer challenges than boys in terms of HC accumulation and utilization. Liberia's HCI reflects poor outcomes on most of the components of the index. The following sections will analyze the details of each component.

Probability of Survival to Age 5

20. Of 100 children born in Liberia today, 93 will survive to the age of 5, according to the HCI (see Figure 2). This value situates Liberia in the lowest quartile of the global distribution. According to the most recent data available, approximately 40 percent of deaths occurred during the first month of life (neonatal period), mostly from conditions that can be prevented through improved access to quality care during the antenatal and peripartum period. Only 55 percent of Liberian children under one year are fully immunized. Malaria continues to be a major cause of mortality for children under age five, accounting for 12 percent of all deaths, followed by diarrheal diseases (11.2 percent) and lower respiratory tract infections (10 percent).

Figure 2. Liberia's Probability of Survival to Age 5 (2000-2018)

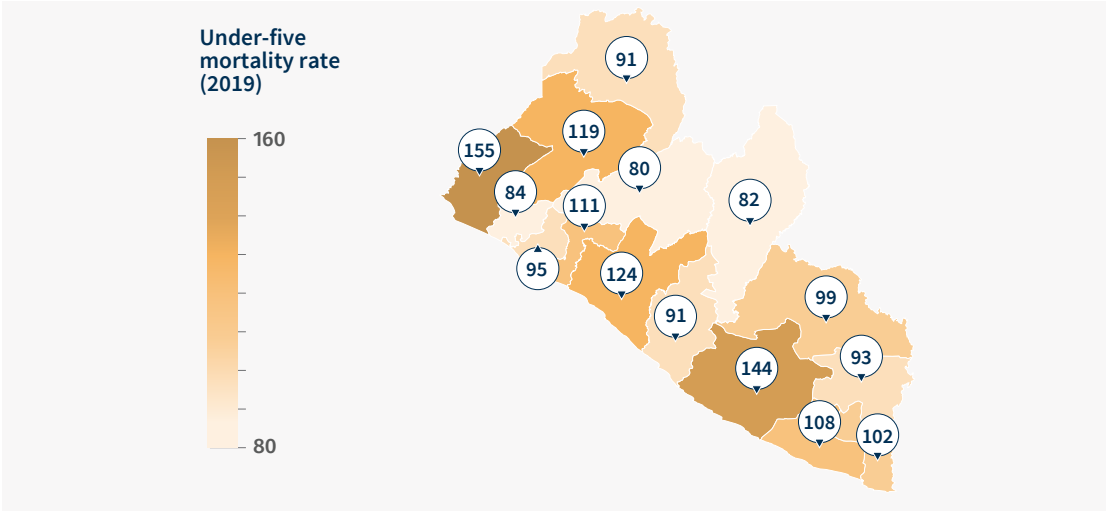


Source: HCI, 2020.

21. Child survival in Liberia has experienced a significant increase since 2000, when it was only 0.813. The data also show that the survival rates are slightly higher for girls than for boys, a common pattern across countries. Of course, when disaggregated by income levels, various statistics reveal wide national disparities. For example, the Demographics and Health Survey (DHS, 2019) indicates that the under-5 mortality rate is greater for the lowest quintile of the wealth distribution than for the highest.

22. Similarly, the data show a large degree of disparities across Liberia's counties (see Figure 3). Whereas the rates are relatively low in areas such as Nimba and Lofa, the highest rates are found in Grand Kru and Gbarpolu. Interestingly, relatively wealthier areas such as Montserrado do not show good outcomes.

Figure 3. The Under-5 Mortality Rate per 1000 Live Births by County



Source: DHS, 2019.

23. In general, and as would be expected, the under-5 mortality rate tends to be higher in rural than urban areas (reflecting, in part, varying access to health facilities), and for children with younger and less educated mothers. According to the 2013 DHS, the mortality rate is 25 percent higher for children of mothers with no education than for children of mothers with secondary education or higher. Similarly, it is 22 percent higher for children of mothers who are under 20 years of age than those who are between 20 and 29 years.

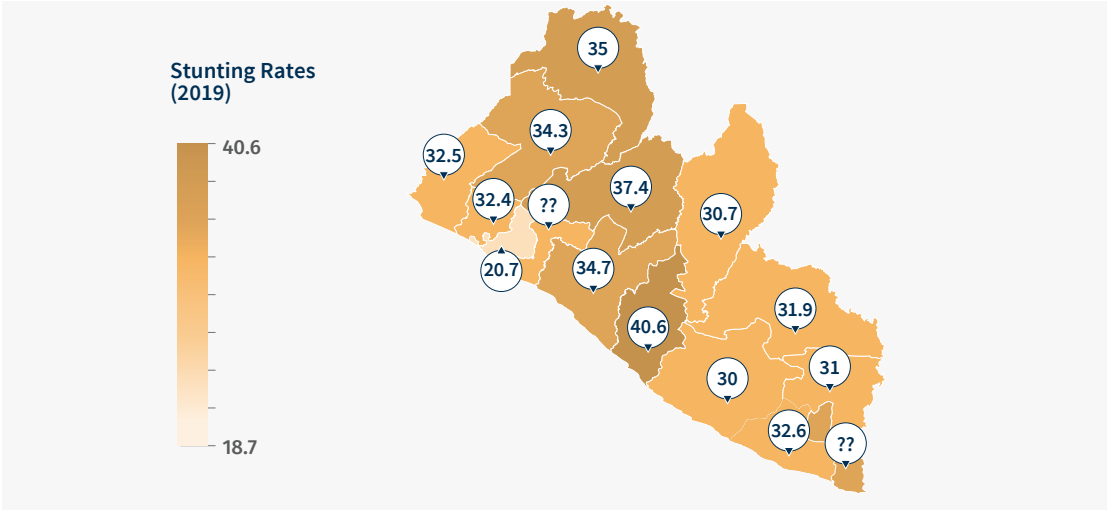
Stunting Rates

24. In Liberia, 30 of 100 children under the age of five are stunted and, consequently, at risk of cognitive and physical limitations. Although the stunting rate has been declining during the last decade, Liberia still has 10 percent of children under 5 who are severely stunted; and it has the sixth- and eighth-highest stunting rates in the 16 countries that typically comprise "West Africa." Stunting rates have been always higher for boys than for girls—currently, 32 percent of under-5 male children are stunted compared to 28 percent of their female counterparts.

> Thirty percent of Liberian children under the age of five are stunted, at risk of cognitive and physical limitations.

25. DHS data show that there is statistically significant heterogeneity in stunting rates by levels of income and education, and by county (see Figure 4). In 2019, the stunting rate was 35 percent for households in the lowest quintile of the income distribution, compared to 20 percent for the highest quintile. Similarly, the stunting rate reaches 32 percent for children whose mothers do not have education, and only 20 percent for children whose mothers have secondary or higher education.

Figure 4. Liberia's Stunting Rates by County



Source: DHS, 2019.

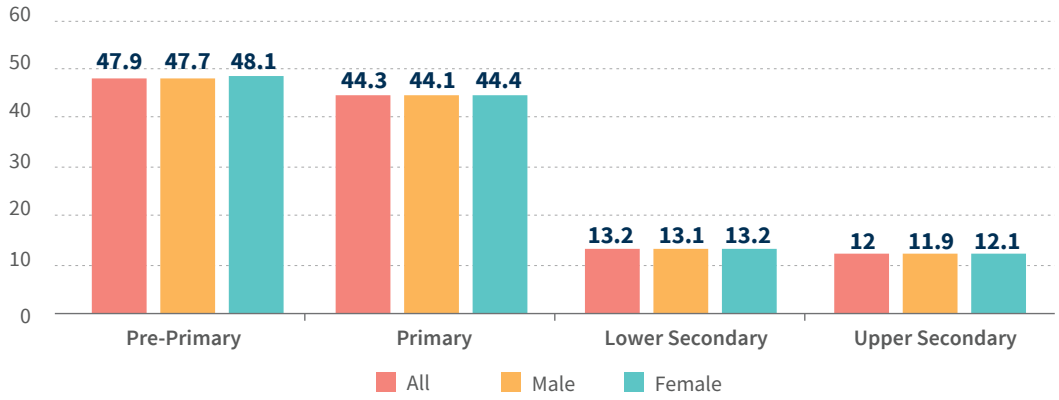
26. The stunting rate also tends to increase with age through early childhood. It is around 12.7 percent for children between 6 and 8 months of age but increases up to 41.3 percent for children between 24 and 35 months old. There are also regional disparities with respect to stunting, in part tied to underlying socio-economic conditions, including rural vs. urban status. Rivercess has the highest portion of stunted children (40.6 percent), whereas Monrovia is at 18.7 percent. Beyond these disparities, however, there is a minimum level of stunting that affects around one-fifth of children regardless of the level of wealth, education, or area of residence.

Expected Years of Schooling

27. The education component of the HCI is probably where the biggest challenges for Liberia are concentrated. On average, Liberian children can expect to complete only 4.16 years of schooling by the age of 18, the second-lowest value in the world. The calculation of this indicator is based on the net enrollment rates for each of the education levels: pre-primary, primary, lower secondary, and upper secondary. The analysis of net enrollment rates shows three patterns. First, the enrollment rates are very low for all the education levels, being below 50 percent even for pre-primary and primary school. Second, there is a significant drop from primary to lower secondary, where the net enrollment rate is approximately 13 percent (see Figure 5). Third, there are no significant changes between lower and upper secondary education rates. Furthermore, substantial disparities exist across locations, socio-economic backgrounds, and genders, as well as disability status. For example, children ages 6 to 11 from rural and poorer households are around 50 percent less likely to attend primary education, and even less likely to complete this level of education than their peers from urban and wealthier households. Additionally, most children with disabilities are not enrolled in schools.

> The pressing issue on access to education is reflected in the low expected number of years of schooling in Liberia: only 4.16 years, which is the second-lowest value in the world.

Figure 5. Liberia's School Enrollment Rates Disaggregated by Level (2019)



Source: HCI, 2020.

28. For most levels, the gross enrollment rate is significantly higher than the net rate. For instance, in 2017, the gross enrollment rate was 125 percent for the pre-primary level, 85 percent for primary, and 50 percent for lower secondary. For the upper secondary level, the latest value is 30 percent in 2015. This mismatch between the gross and the net enrollment rates is a function of the large number of overage students.

29. The high proportion of overage and out-of-school students was first identified as system-level challenges during the re-establishment of the education system after the second civil war (1999-2003), driven by large numbers of students who either missed primary schooling completely or had their education cut short by the conflict. The government responded through the provision of accelerated learning programs, which aimed to re-integrate overage students at a more appropriate age for their grade. However, the overage enrollment phenomenon persisted beyond the cohorts in the early post-conflict years. While the Education Reform Act of 2011 makes it mandatory for children ages 3-5 to be in early childhood education (ECE), 75 percent of ECE students are overage. Measures to increase at-age enrollment have been unsuccessful. High rates of overage enrollment at all levels of education were observed in 2016; approximately 40 percent of primary school students were more than three years older than the appropriate age for their grade, for example (World Bank, 2016a).

30. Despite these challenges, Liberia has shown some progress in access to education during the last few decades. Between 1981 and 2015, the number of students enrolled in the education system (from early childhood to upper secondary education) increased from 300,000 to 1.5 million. Between 2010 and 2018, the teaching workforce also grew, nearly doubling in size, from 26,359 to 55,243 teachers. Significantly, much of this progress was achieved through services provided by non-governmental organizations. Indeed, approximately 46 percent of students attend non-governmental, fee-paying, faith-based or private schools, rising to 61 percent of upper secondary school students.

31. As with the other HCI components, access to education shows significant disparities, including by gender. Although there are no large differences in net enrollment rates, gross enrollment rates circa 2000-2015 show gaps, especially at the secondary levels. For primary education, although the gaps were considerable not long ago, they have been declining since 2015 (see Table 1).

Table 1. Liberia Gross Enrollment Rates (2000-2017)

Year	GER - Primary			GER - Lower secondary			GER- Upper secondary		
	Only Male	Only Female	Difference	Only Male	Only Female	Difference	Only Male	Only Female	Difference
2000	133.7	98.5	35.2	48.1	31.0	17.0	34.4	29.5	4.9
2006	98.9	91.2	7.7	51.1	39.7	11.4			
2008	100.3	91.2	9.1	48.7	39.1	9.6			
2009	108.0	96.5	11.5	53.4	41.9	11.5			
2011	109.9	100.2	9.7	55.5	45.7	9.7	46.1	36.8	9.3
2014	101.6	93.1	8.6	50.8	40.7	10.1	35.2	25.6	9.6
2015	100.3	90.2	10.1	50.2	39.7	10.5	34.5	25.3	9.1
2016	89.8	89.2	0.6	52.9	49.6	3.2			
2017	85.5	84.7	0.8	51.5	48.6	2.9			

Source: HCI, 2020.

Learning-Adjusted Years of Schooling

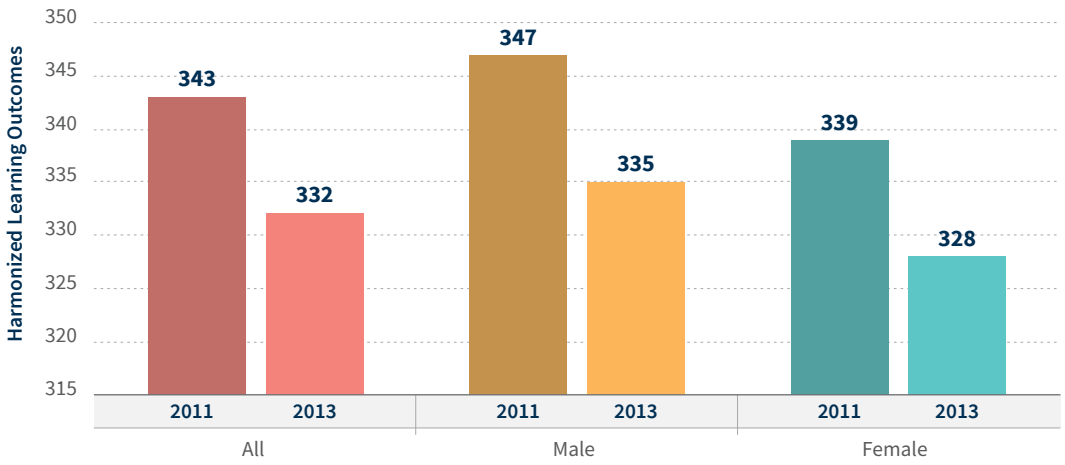
32. Even for those who attend school, the levels of learning are very low. Although the average child in Liberia who starts school at age four may likely complete around 4.2 years of schooling, the actual level of substantive learning, when quality of education is considered, equates to only 2.2 years. This represents the lowest value in the world and calls for immediate actions for improvement.

> When adjusted by quality, the expected number of years of schooling drops from around 4.2 to only 2.2 years—the lowest value in the world.

33. The learning-adjusted years of schooling are constructed using the Harmonized Learning Outcomes (HLOs), which are comparable across countries. Scores are disaggregated by schooling level, subject, and gender. In 2013, students in Liberia scored, on average, 332 (see Figure 6) on a scale where 625 represents advanced attainment, and 300 represents minimum attainment. With the caveat that the most recent data is seven years old, the information suggests that national learning levels declined from 2011. There is another important caveat: the HLO indicator is based on the Early Grade Reading Assessment (EGRA), but these

assessments are not conducted on the same platforms and terms across the nation, so that the values should be read with caution. In the 2010/2011 EGRA oral reading fluency sub-section, around 35 percent of grade 2 students and 17 percent of grade 3 students could not read a single word. There is evidence of gender and geographical disparities in learning outcomes. Generally, girls perform more poorly in EGRA, and rural learners have significantly lower early grading scores than their urban counterparts.

Figure 6. **Liberia's Low Learning Level Declines Further (2011 vs. 2013)**



Source: HCI, 2020.

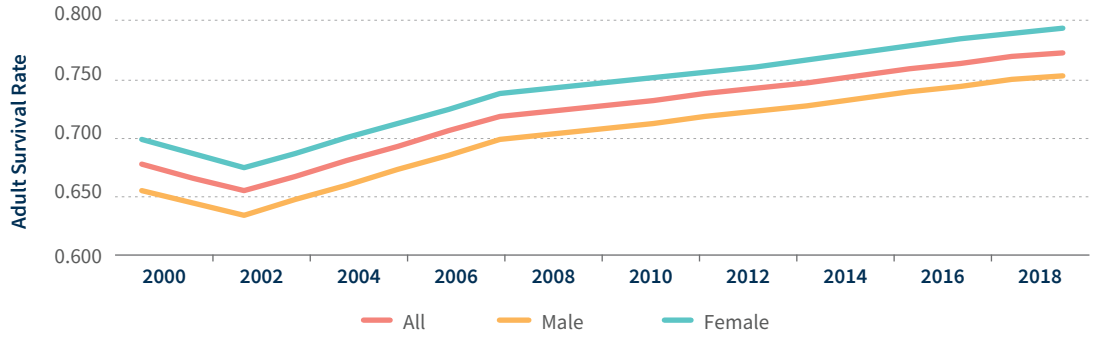
34. Although there is no data on learning outcomes of students with disabilities, the UN Flagship Report on Disability and Development (UNDESA, 2018). shows that persons with disabilities have lower literacy rates than persons without disabilities in Liberia. Based on available data, the literacy rate of men with disabilities is lower than of men without disabilities, but higher than of women without disabilities. Women with disabilities have the lowest level of literacy rates. Data from the 2008 National Population and Housing Census indicates a 10 percent difference between the primary school completion rates of persons with and without disabilities. The 2018 UNESCO education data analysis of 49 countries found that men with disabilities in Liberia attended school on average for 4.5 years, more than double the 1.8 years for women with disabilities (UNESCO, 2018a).

An inclusion gap: there is a 10 percent difference between the primary school completion rates of persons with and without disabilities.

Adult Survival Rate

35. The last component of the HCI is the adult survival rate, defined as the probability of surviving from ages 15-60, based on the estimated mortality rates over this age range, with interpolated data from the UN Population Division. This statistic is a proxy for the range of health risks that a child born today would experience as an adult under current conditions. The data shows that in Liberia, 78 percent of 15-year-olds will survive until age 60 (see Figure 7).

Figure 7. Liberia Adult Survival Rate (2000-2018) Disaggregated by Gender (2000-2018)



Source: HCI, 2020.

36. The indicator has been improving significantly after a drop associated with the second civil war. Thus, the adult survival rate of 0.65 in 2002 rose to 0.78 in 2019. The indicator has consistently shown higher values for women than for men, which is common across countries.

Comparison with Peers

37. For all the components of the HCI, Liberia is in the lowest quartile of the global distribution of countries, except for stunting, for which it is in the second quartile. As shown in Table 2, the HCI in Liberia is also lower than for roughly comparable neighboring countries.

Table 2. The HCI in Liberia and Neighboring Countries

Indicator	Liberia	Ghana	Nigeria	Sierra Leone
Probability of Survival to Age 5	0.93	0.95	0.88	0.89
Expected Years of School	4.2	12.1	10.2	9.6
Harmonized Test Scores	332	307	309	316
Learning-Adjusted Years of School	2.2	6.0	5.0	4.9
Fraction of Children Under 5 Stunted	0.30	0.18	0.37	0.29
Adult Survival Rate	0.78	0.77	0.66	0.63
HUMAN CAPITAL INDEX 2020	**0.32**	**0.45**	**0.36**	**0.36**

Source: HCI, 2020.

38. When Liberia's HC outcomes are compared with those of countries with its income level, the results are uneven. This comparison is at once simple and challenging, given the small number of countries at Liberia's income level; however, the broad pattern is clear: even factoring in the current level of GDP per capita, there is substantial room for improvement (see Figure 8).

39. More specifically, the results show that Liberia's performance is particularly poor for the expected years of schooling and learning-adjusted years of schooling. For the probability of survival to age 5, Liberia shows the expected value for its income level. Other indicators such as the not stunted rate at age 5 and the adult survival rate show values that are relatively good given the country's income level. Nevertheless, the results should be read with caution given the low number of countries with income levels as low as Liberia. These simple correlations aim to establish some basis for comparisons, but many other variables affect HC accumulation and there is room for improvement, as explained in subsequent chapters.

Figure 8. Liberian Performance across HCI Components

Source: HCI, 2020.

Inequality of Opportunities to Build Human Capital

40. The Human Opportunity Index (HOI) measures how individual circumstances can affect a child's access to basic opportunities, including on education, health, and early childhood nutrition. The individual circumstances in reference, which can affect a child's ability to accumulate HC, relate to gender, place of residence, parental education, tribal affiliation, and household wealth (World Bank, 2016b). Research shows that children with limited access to early childhood and basic education accumulate low HC and experience low labor market outcomes later in life (Currie and Thomas, 1999; Case and Paxson, 2006). Similarly, childhood malnutrition can generate lifelong learning difficulties, poor health, low productivity, and earnings over a lifetime (Alderman et al., 2006; Hoddinott et al., 2008).

41. Table 3 summarizes the main results of Liberia's HOI for indicators such as stunting, anemia, and attendance in primary school. The size of the inequality in opportunities found among Liberian children implies some degree of divergence in their ability to accumulate HC based simply on their birth circumstances or the characteristics of their parents. The degree of inequality appears to be higher for the opportunity related to access to primary education as compared to inequality related to opportunity for escaping childhood malnutrition, as indicated by higher dissimilarity index for indicators on access to primary education.

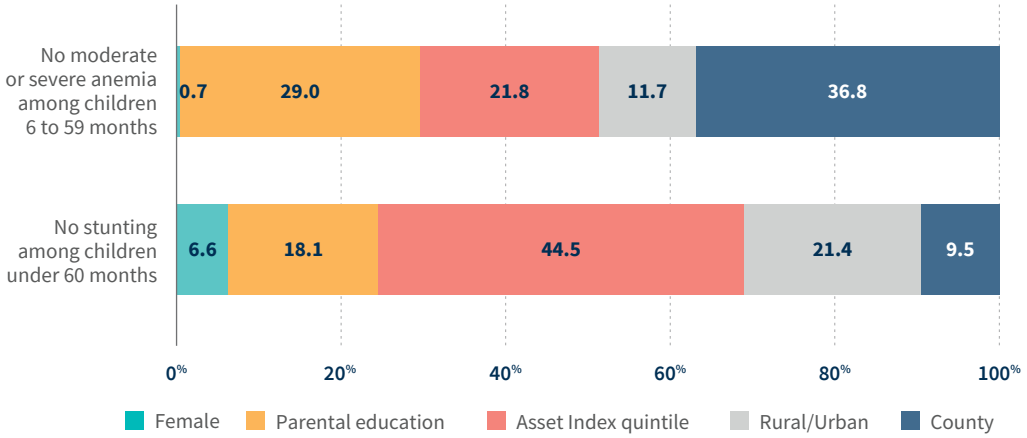
Table 3. Human Opportunity Index on Access to Health and Education

	No stunting among children under 60 months	No moderate or severe anemia among children 6-59 months	Ever attended primary school or higher (6-15 years)	Currently attending primary school or higher (6-15 years)	Started primary school at 6 years or earlier (6-15 years)
HOI	0.68	0.57	0.47	0.44	0.27
Dissimilarity-index	0.05	0.03	0.12	0.13	0.15
Penalty	0.04	0.02	0.07	0.07	0.05
Coverage	0.71	0.59	0.53	0.51	0.32

Source: World Bank staff calculations based on HIES (2016) and DHS (2019).

42. Circumstances that are beyond the control of children, such as parental education, parental wealth, location of residence (rural/urban), and county of residence all appear to account for a significant portion of the observed inequality in access to basic opportunities for Liberian children (see Figure 9 and Figure 10). While county of residence (36.8 percent), parental education (29 percent), and household wealth (21.8 percent) are the top 3 factors explaining inequality in terms of opportunity for escaping moderate or severe anemia, household wealth (44.5 percent), location of residence (rural/urban) (21.4 percent), and parental education (18.1 percent) are the top 3 factors explaining inequality in terms of opportunity for escaping stunting.

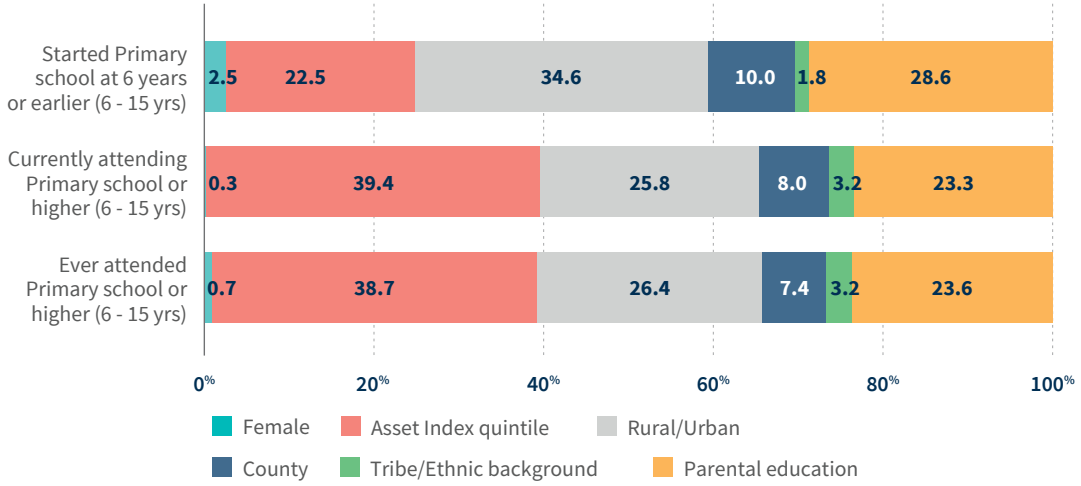
Figure 9. Shapley Decomposition of the Dissimilarity-Index (percentage of dissimilarity [inequality] on child health outcomes explained by each circumstance variable)



Source: World Bank staff calculations based on DHS (2019).

43. Opportunity of accessing basic education is far from universal for Liberian children, with only about 53 percent of children 6 to 15 years reporting ever attending primary school or higher. There is also significant inequality in opportunity for accessing basic education indicated by a high dissimilarity index (see Table 3). Household wealth (39 percent), location of residence (rural/urban) (26 percent), and parental education (24 percent) are top 3 factors explaining inequality in terms of opportunity for accessing basic education for children in Liberia. Similarly, late entry into primary school is also a concern for Liberian children, with only about one in three children currently in school having the opportunity to enter primary school at age six or earlier. Location of residence (34.6 percent), parental education (28.6 percent), and household wealth (22.5 percent) are the top 3 factors explaining inequality in terms of opportunity for entering primary school at the standard appropriate age.

Figure 10. Shapley Decomposition of the Dissimilarity-Index (percentage of dissimilarity [inequality] explained by each circumstance variable)



Source: World Bank staff calculations based on HIES (2016).

The Utilization-Human Capital Index in Liberia

44. The transition of accumulated HC into economic growth faces frictional challenges when its full potential cannot be utilized. To reflect these challenges and provide a more grounded "score" as a guide to policymakers, the Utilization-Human Capital Index (UHCI) has recently been developed by the World Bank Group. This index adjusts the HCI for labor-market underutilization of HC, based on the fraction of the working-age population employed in jobs where they might be able to use their skills and abilities productively ("better employment"). Thus, the UHCI incorporates refinement measures drawing on the following concepts.

- **Utilization basic:** The basic measure of the Utilization Rate, defined as the employment-to-working population ratio of the 15-64 age group.
- **UHCI basic:** The basic measure Utilization-adjusted Human Capital Index, defined as the Basic Utilization Rate multiplied by the Human Capital Index (Utilbasic*HCI).
- **SEBJ:** Share of Employment in Better Jobs, calculated as better employment (defined as non-agricultural employees plus employers) divided by total employment.
- **BER:** Better Employment Rate, calculated as the SEBJ* Utilization basic.
- **Utilization full:** The full measure of the utilization rate. Calculated as BER+(1-BER)*HCImin/HCI. HCImin is the minimum Human Capital Index Score for Health and Education (with complete survival) and is equal to 0.2.
- **UHCI full:** The full measure of the Utilization-adjusted Human Capital Index (Full UHCI), defined as the Full Utilization Rate multiplied by the Human Capital Index.

45. In the case of Liberia, the basic version of the UHCI shows a value of 0.24, while the full version of the UHCI has a value of 0.21 (see Table 4). The main takeaway of this latter calculation is that moving from the status quo to full HC and full utilization of HC would result in long-run GDP per capita that is 4-5 times higher than the current one.

46. Although the constituent construction of the HCI tends to yield higher scores for women than for men, this is not the case for the UHCI. Thus, the gender gap deepens during the working years, revealing that women face lower-paying jobs and reduced income opportunities than men with the same HC.

Table 4. UHCI Components Disaggregated by Gender

Gender	Source	HCI	Utilization full	UHCI full	UHCI basic	Utilization basic	SEBJ	BER	Year
Total	ILO*	0.32	0.66	0.21	0.24	0.75	0.13	0.09	2015
Male	JOIN**	0.31	0.70	0.22	0.24	0.77	0.24	0.18	2014
Female	ILO	0.32	0.63	0.20	0.23	0.72	0.06	0.04	2015

*International Labor Organization.
**Global Jobs Indicators Database.
Source: HCI, 2020.

47. The data reflects that although the vast majority of those over the age of 15 work, the quality of their employment is very low. Data from 2016 (the latest available and reliable source on labor markets in Liberia) show that some 80 percent of the populace is engaged in the labor force, with a large majority employed, resulting in an unemployment rate of only 3.2 percent. In rural areas, unemployment rates are below 1 percent. In urban areas, they remain low (at or below 4 percent), except for men aged 25 or above (7.3 percent).

48. However, paid work (wage employment) still constitutes only 20 percent of all employment, with the majority of the employed engaged in either agricultural self-employment (39 percent) or non-farm self-employment (39 percent). This low quality of employment is the main factor yielding low UHCI values. The portion of Liberians in informal employment is as high as 87 percent. Furthermore, there are substantial gender gaps in labor market outcomes, with women more concentrated in self-employment than men (Johansson de Silva, et al., 2021).

49. The distribution across sectors also shows the predominance of low productivity jobs. Almost half of Liberia's employed population (46 percent) remains in agriculture, mainly in subsistence agriculture. Low productivity services jobs make up almost the same share, 45 percent, with a small manufacturing sector accounting for 8 percent of jobs. Three percent of jobs are unspecified in the available data.

50. There are also significant gender differences in access to productive jobs. Only 3 percent of women work in industry, compared to 15 percent of men. Within the services sector, women are much more likely than men to work in trade, which has the lowest productivity of all sectors in Liberia, and are much less likely to work in public administration, public services, transport, or communications. The importance of the services trade sector for overall employment is largely driven by women: 42 percent of Liberia's women work in trade, compared to 16 percent of men. Overall, 89 percent of women are thus occupied in the least productive sectors in the economy, with fewer opportunities for earnings and more precarious working conditions than men.

A gender gap in access to productive jobs: only 3 percent of women work in industry, compared to 15 percent of men.

51. Significant differences also exist across age groups. Half of all workers ages 15-24 are farmers, partly because youth are more likely to be working in rural areas, where agriculture is the main sector of employment. But youth in urban and rural areas are more likely to work in agriculture than rural adult males (77 versus 68 percent in rural areas).

52. Recent trends show no progress in the structure of employment and almost no signs of structural transformation. The employment share in agriculture has not changed significantly, even though the share of agriculture has fallen in terms of output.

53. The analysis presented above underscores that Liberia faces serious challenges in creating productive jobs. This is particularly relevant because, even if access to, and the quality of, education is improved, economic development will not necessarily be achieved if those who exit the education system cannot find productive employment.

The Impacts of COVID-19 on Liberia's Human Capital Outcomes

54. Although it is too early to provide clear estimates, preliminary analysis and experience from other pandemics suggest that the COVID-19 pandemic will adversely affect HC outcomes in Liberia. While data show that Liberia has not been among the most affected countries, with a total of 2,131 cases and 85 deaths confirmed as of May 17, 2021 (WHO, 2021), the pandemic's immediate effects on citizens and the country's HC are already clear.

55. The most direct effect of the pandemic is on the overall rates of mortality and morbidity. Although the official statistics show a relatively low number of cases, the official fatality rate is likely affected by the limited access to basic health-care and essential services, and to limited data collection.

56. Nutrition outcomes will likely be affected as well. Mobility restrictions, border closures, supply-chain disruptions, and loss of income exacerbate the risk of a food crisis in the country. An increase in child mortality and morbidity might also be expected because of hunger and the transmission of preventable diseases associated with the COVID-19 pandemic.

57. Furthermore, the pandemic is expected to have profound adverse effects on education outcomes. Using the simulation method developed by the World Bank, it is possible to estimate the impacts of school closures and the income shock on learning levels. In Liberia, schools were closed for a total of 37 weeks (UNESCO, 2021). Under a scenario where schools are closed for seven months, both access to education and learning quality would go down significantly. The estimation shows that the average years of schooling would decline from 4.2 to 3.1 years, and the learning-adjusted years of schooling would decline from 2.2 to 1.5.

The COVID-19 pandemic learning loss: the expected number of years of schooling, which is already extremely low, is likely to drop from 4.2 to 3.1 years.

58. The impacts on schooling and learning are also likely to have long-term effects on income. The average annual earnings per student, measured in 2011 $PPP, would decline by $291 (unless otherwise explicitly stated, the currency cited throughout this report is the U.S. dollar). This would imply a reduction of $4 billion of the present value of students' lifetime earnings, which is more than half of Liberia's current GDP. These numbers show that education has benefits for individuals and the society as a whole, particularly in terms of economic growth.

59. Translating these values in terms of HC accumulation, Liberia's HCI could decline from 0.32 to 0.30 (meaning that children born today will realize only 30 percent of their potential productivity) solely from the pandemic's effect on education and its extended impact. Given the index's multidimensional nature, the real impact will be exacerbated by the pandemic's impact on the under-5 mortality rates, the stunting rates, and the adult survival rates.

60. It is important to note that these estimates are limited and conservative. They do not account for a potential increase in the school drop-out rate for instance. There is no precedent for a twin shock of extended school closure coupled with a sharp global recession, so the total effects will likely be higher.

61. However, the empirical literature of previous pandemics shows that the effect on drop-out rates could be much higher than the previous conservative estimates. For example, recent evidence from Ethiopia shows that the coffee price shock after the 2008 global financial crisis increased the school drop-out probability of children age 15 and older by nearly 8 percent. Similarly, among households who experienced an economic shock in Brazil during the 2005–2015 period, the risk of dropping out was 8 percent higher for secondary students and 20 percent higher for tertiary students.

62. In addition to the impacts on drop-out rates and learning levels, the current crisis will have another inexorable effect: a massive increase in educational disparities. First, other countries' experiences show that girls will likely be disproportionately affected. In Sierra Leone, when the schools reopened after being closed for almost an entire academic year during the Ebola outbreak, the enrollment rate for girls ages 12-17 dropped by 16 percentage points (Bandiera et al., 2019). These differential impacts also include higher rates of adolescent pregnancies and early marriages: out-of-wedlock pregnancy rates for girls ages 12-17 at the onset of the crisis increased by 7.2 percentage points. Similar effects might be expected in Liberia, where girls face many obstacles to access secondary education—especially in northern counties.

Evidence from similar crises shows that girls are disproportionally affected from prolonged closure of schools—rates of early pregnancy and marriage often increase.

63. Learning inequality across income levels will likely increase as well. Differential access to remote learning and conditions at home could widen the current gap further. The pandemic is also expected to have differential effects on the education of disadvantaged children, including those with disabilities and those living in rural or remote areas.

Conclusion

64. This chapter presented the findings of a comprehensive analysis of the most relevant HC outcomes observed in Liberia. The analysis was conducted using data disaggregated by socio-economic groups, age cohorts, gender, and counties, to the extent possible. It highlighted Liberia's low HCI and UHCI levels, and included comparisons between the outcomes observed in Liberia and other Sub-Saharan Africa countries. The conclusions of this chapter can be summarized in the four key takeaways.

65. First, Liberia's HC outcomes are among the lowest in the world. This issue limits Liberian citizens' opportunities to benefit from healthy and productive lives. It also hinders the country's economic growth. Second, Liberia's HC outcomes are generally low and vary across groups. In general, people from urban environments have more opportunities to build stronger HC than those from rural areas and disadvantaged socio-economic backgrounds. Additionally, women and people with disabilities face additional obstacles to properly develop and utilize their HC. Third, the experiences from other crises suggest that the COVID-19 pandemic will exacerbate the current HC-related challenges and widen existing gaps. The effects are not restricted to health outcomes, but also include the disruption of the education system and the earning loss of future workers. Fourth, even for those who can manage to acquire proper skills and attain access to good health services, the opportunities to utilize HC productively are limited, especially given the widespread prevalence of low-quality jobs.

Chapter III.

Main Bottlenecks for Human Capital Development

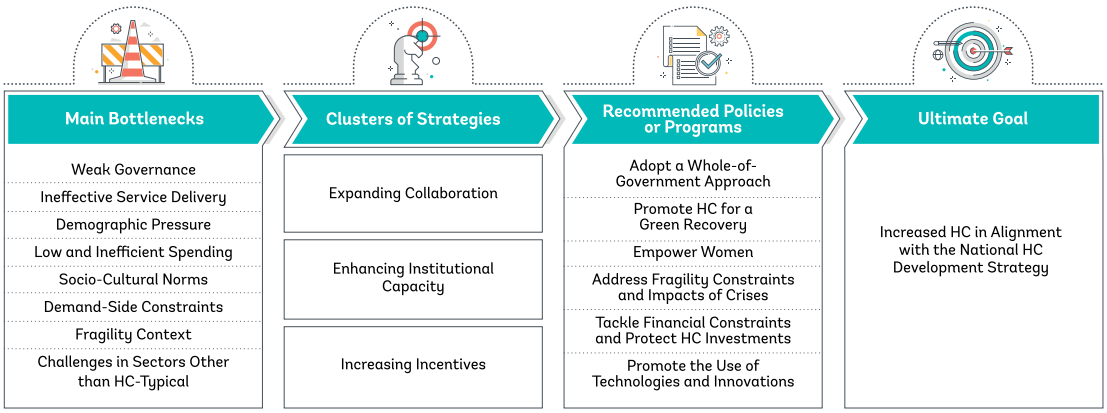
66. The contributing factors to Liberia's low HC outcomes are multiple and complex, and are explored in this chapter through a problem-driven iterative approach based on an extensive review of the literature, analysis of limited extant data, and consultations with relevant policymakers and stakeholders in Liberia. The goal is not to establish the specific impact of each factor on HC, but to identify the main drivers so that other studies can analyze in greater detail the causal mechanisms and the magnitude of each driver.

67. This report is selective with respect to contributing factors; it focuses on eight elements that seem to have the largest impact on the HCI indicators: weak governance, ineffective service delivery, demographic pressures, low and inefficient spending, socio-cultural norms, demand-side constraints, the fragility context, and the challenges in sectors other than education, health, and social protection that contribute to HC formation.

Theory of Change

68. The most important bottlenecks for HD development are a key part of the theory of change (ToC) depicted in Figure 11, which shows what it takes to promote HC in Liberia, moving from bottlenecks to policy recommendations to build, protect, and deploy HC. It is aligned with a proposal for the preparation and adoption of a national strategy for HC development. The recommendations and the framework for the preparation of the HC development strategy are presented in Chapter V. The ToC and the strategic framework for HC development are intertwined; the former's set of strategies corresponds to the latter's pillars.

Figure 11. Theory of Change for HC Development



Source: Authors' elaboration.

Weak Governance

69. The GoL is striving to establish rules-based public sector governance, but it has been facing obstacles rooted in the country's political economy. Liberia is currently experiencing the longest period of democratic rule since its founding. The country held its third postwar presidential and legislative elections in late 2017, and it completed both its first peaceful political transition from a living incumbent and its first nonviolent transfer of power between political parties in January 2018. The country has completed the political transition and is expected to wrap-up the security transitions without major incidents (World Bank, 2018a).

70. In 2005, the GoL launched an ambitious program to improve public sector governance—the Governance and Economic Management Program. Since then, Liberia's governance indicators steadily improved through 2011, but after the initial post-conflict recovery, progress has been limited, and the country lags Sub-Saharan countries on average (World Bank, 2018a). The obstacles constraining the achievement of the envisioned governance improvement program's goals include limited administrative capacity and an entrenched patronage system. GoL has made significant progress in eliminating ghost workers from the payroll and conducting technical audits. The practice of paying discretionary general allowances was abolished in July 2019. Various payrolls have now been consolidated into a single public payroll. Recruitment of civil servants is now being controlled, with the Civil Service Agency (CSA) issuing Personnel Action Notices before any new employee is added to the payroll. A performance management system introduced by the CSA has been piloted in seven ministries but is yet to be fully rolled out to other ministries, agencies, and commissions. Most public agencies are understaffed at the professional/technical levels and often charged with a wide range of tasks with little administrative autonomy. Many civil servants report having limited job security and being beholden to an institutional patron. These challenges in governance affect the delivery of public services that contribute to HC formation.

The GoL has advanced the decentralization agenda since 2012. There is progress is sectors such as health.

71. Decentralization has been prioritized by GoL over the past few years, but progress with this agenda has been hindered by the country's limited fiscal and institutional capacity. The government launched the National Policy on Decentralization and Local Government in 2012 to address political and economic issues observed across domestic regions and among ethnic groups. While the implementation of the decentralization policy has been conceived as a long-term process, progress has already been observed in sectors such as health. Progress has also been observed with the establishment of county service centers as one-stop shops for citizens to obtain basic official documents (such as birth certificates, marriage licenses, business registration certificates, and land titles) at the same cost as in Monrovia, the nation's capital. However, these centers' managerial and technical capacity remains to be enhanced (World Bank, 2018a).

72. These challenges have important impacts on HC outcomes. For instance, there is currently no whole-of-government approach to HC development in Liberia. Instead, there are disconnects among government agencies involved in HC development. A whole-of-government approach to policies typically requires (a) sustained efforts across political cycles, (b) coordination across government agencies, and (c) the utilization of evidence for the design of policies and programs (World Bank, 2018b). In Liberia, most efforts tend not to be sustained across political cycles, partly because of the low levels of institutionalization of the policies undertaken. This issue is exacerbated by the high turnover of senior public servants across government institutions, which is also prevalent for human development sectors. While it is known that a holistic approach to address the most pressing HC development issues is advantageous, Liberian agencies often work in silos, which leads to inefficiencies and poor outcomes. Typically, these agencies do not (a) coordinate their planning initiatives, (b) use a common targeting criteria and tools to reach vulnerable populations, or (c) share technology and systems to deliver social services efficiently.

There are disconnects among agencies responsible for HC policies and programs.

73. Other countries have substantially increased their HC through a whole-of-government approach. For instance, Ghana increased its HCI thanks to improvements in childhood stunting and enrollment rates. An analysis of the critical success factors observed in Ghana highlights a whole-of-government approach, involving the health and education sectors together with agriculture, water, sanitation, and hygiene. Examples of successful programs and policies include the Ghana School Feeding Program, the National Health Insurance Scheme, and the Free Compulsory Universal Basic Education (Blunch, 2020).

74. The management of Liberia's teaching workforce exemplifies the aforementioned disconnects, most notably through the absence of both horizontal and vertical coordination among institutional actors. The Ministry of Education (MoE) is supposed to liaise with the Civil Service Agency (CSA), Ministry of Finance and Development Planning (MFDP), and offices at the county and district levels to manage the teaching workforce. The teachers' payroll is jointly managed by the MoE, CSA, and MFDP. However, given the lack of effective coordination practices, the payroll system is fed with unreliable data (including data on ghost teachers, despite improvements), which, as subsequently discussed, leads to inefficiencies in spending and suboptimal teaching conditions.

75. In the education sector, appropriate institutional arrangements to address coordination and service delivery challenges have not been put in place, despite being laid out in existing regulations. The Education Reform Act of 2011 calls for the establishment of a National Education Advisory Board comprising stakeholders of different institutions engaged in education. However, this board has never operated. The Education Reform Act also calls for the establishment of the following centers of excellence under the MoE: accreditation and certification, curriculum and research, and education management. These centers should be responsible for relevant governance functions, including developing the national curriculum, developing accreditation and quality assurance systems, licensing teachers, and strengthening school, district, and county management systems. However, a decade later, these centers are not yet operating as planned.

76. The coordination among government agencies and stakeholders who play a role in HC development remains to be improved to benefit both employers and job seekers. For instance, there is almost no collaboration among the Ministry of Labor (MoL), MoE, and ministries and agencies involved in implementing relevant labor market programs. Moreover, adult education and training is largely offered by non-governmental organizations, which struggle to coordinate their actions and programs and are often reliant on continuous donor funding for sustainability. As a result, more than one-fifth of private firms in Liberia report that young workers, even those with higher education, have inadequate skills (e.g., information and communication technologies and writing skills) to properly perform their jobs (Arias et al., 2019).

77. The disconnects among government agencies responsible for HC development result in unresponsive, suboptimal service delivery. Liberian government agencies often make choices and act in isolation. As a result, they offer programs and services that do not fully address the needs of beneficiaries.

78. Finally, the country also presents a weak track record of using existing empirical evidence or new analyses to deliver higher returns to investments in HC. This is partly a function of political economy constraints that narrow the realm of feasible policies given the scope of veto powers embedded in fragmented institutional arrangements for decision-making. There is also a dearth of empirical evidence on marginalized groups, such as persons with disabilities, which facilitates cycles of limited and poorly conceived investments directed to the needs of such groups. Adding to the low quality of governance and outcomes is the poor communication about policies that can promote HC.

Poor Communication

79. There has been limited communication among stakeholders and with beneficiaries about HC development in Liberia; this has constrained the preparation and delivery of HC-focused programs on the supply side as well as the demand for services. In keeping with the preceding discussion of the absence of institutional coordination, there is no forum or systematic exchange of information to discuss these issues governmentwide and develop appropriate options. As a result, the GoL does not benefit from synergies among programs.

80. A sound communication strategy proved fundamental to build trust in GoL's initiatives to combat the Ebola outbreak in 2014-15. More than 4,400 people died during the outbreak, which severely damaged the country's fragile health system. The GoL's communication strategy included a robust information campaign to spread good health practices, counter the dissemination of rumors, and build trust in the government's program. The strategy included talk shows on radio, partnerships with the private sector to utilize mobile phones, survivors' testimonials, and mobilization of social workers (World Bank, 2020a).

81. Information constraints limit the link between HC that is acquired and that which is utilized (employment). They affect the career aspirations of Liberian citizens and hinder their appropriate preparation for the job market. Limited and asymmetric information leads to inefficient job searches and poor job matches (allocative inefficiencies). The 2010 Labour Force Survey reported that nearly 42 percent of unemployed women and 27 percent of unemployed men prudently sought the assistance of family or friends when looking for jobs. However,

these social networks are likely very thin and do not provide information about the wide range of potential employment in the market. About one-quarter of the unemployed look for jobs through job sites. A smaller share (12.2 percent of surveyed women and 12.8 percent of men) knew about the existence of employment services, but only 0.5 percent of the women and 1.6 percent of the men had used them (LISGIS and ILO, 2010).

82. Poor communication strategies might also help to explain the low access to education services in Liberia. Worldwide, various factors explain low access to education, including demand-side determinants such as lack of information on the returns to education. In Liberia, the lack of support at school and/or home is one of the main factors that inhibits students from continuing their studies. The existing international evidence shows that schooling is fundamental for skills acquisition and subsequent labor productivity, as well as for social and non-market benefits, including increased child well-being, health conditions, social capital, and better consumer choices (Montenegro and Patrinos, 2014).

83. A recent World Bank report found that school attendance and learning outcomes improved through low-cost interventions such as the provision of information to parents and students on the income-earning benefits of education (where these are not known or not prominent in people's minds) and on the quality of local schools (World Bank, 2020c). Interventions that provide specific and context-relevant information have been tested and shown to shift people's beliefs about the benefits of education or the quality of schooling, and have also shown a low cost per child when delivered at scale. This is particularly important for marginalized groups, such as children with disabilities, where negative perceptions of their learning capacity and future productivity impede their enrollment and retention in school.

84. The literature on the returns to education, which can be used to inform policy and investments in education, shows the patterns of estimated returns to schooling across countries and over time. The returns are often expressed as an estimated proportional increase in one's labor market earnings from each additional year of schooling completed. The most consistent findings from a comprehensive analysis of estimates from 139 economies (Montenegro and Patrinos, 2014), which are summarized in Table 5, show that:

- private returns to schooling are overall positive, and the annual average rate of return to schooling is 10 percent
- returns to schooling seem to be higher in low- or middle-income than in high-income countries
- returns to schooling are higher at the tertiary education level than at any of the other level of education, with the lowest returns found at secondary education
- returns to schooling are higher for women than for men
- returns to schooling have declined very modestly over time, despite rising average levels of schooling attainment, suggesting that the world demand for skills has been increasing as the skill supply has also increased.

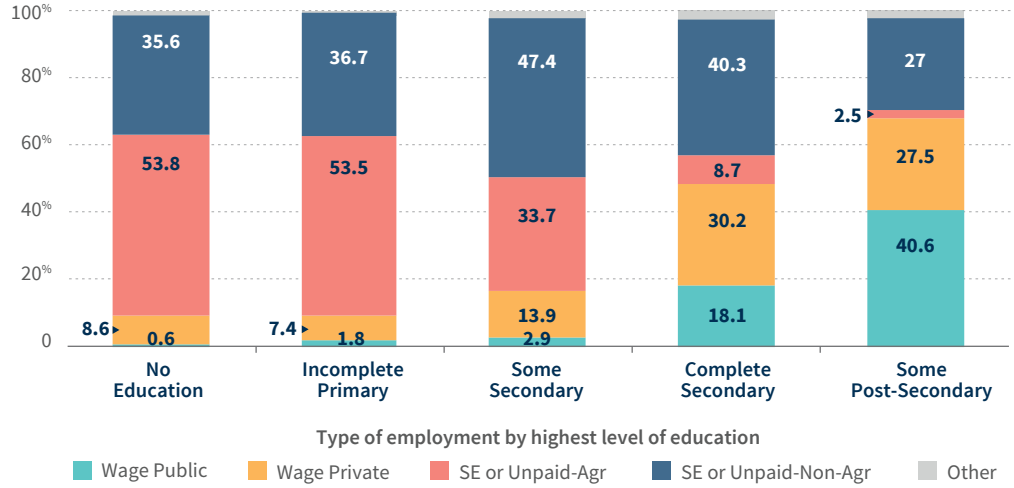
Table 5. Returns to Education, 1970-2013 (139 Economies)

Variable	Total	Male	Female
Return to an additional year of schooling	10.1	9.6	11.7
Return to primary education	10.6	10.0	10.9
Return to secondary education	7.2	7.1	8.7
Return to tertiary education	15.2	15.2	16.8

Source: Montenegro and Patrinos, 2014.

85. Education matters for the quality of jobs an individual can access. In Liberia, more highly educated workers are more likely to be in wage employment and less likely to be in self-employment and unpaid agriculture (see Figure 12). Overall, having some post-primary education is associated with greater opportunities outside of agriculture, and completing secondary education is important for working as an employee in the private sector. It is noteworthy that those with the highest levels of education (post-secondary education) are very much concentrated among public wage employees. Returns to education (only estimated for wage workers) do not differ between not completing primary education and no education at all, but begin to manifest at secondary levels and increase exponentially. All else being equal, returns to education are higher for women that complete secondary or further education than for men (although there is, as discussed above, an overall negative wage premium for women). This higher premium to education for women may reflect a higher share of women wage workers in public sector employment than private sector work.

Figure 12. Type of Employment by Education Level



Source: World Bank staff estimates, ID2D Harmonized HIES (2016).

86. Although the returns to schooling are higher for women than for men, female retention rates are low in Liberia's education system. Only 15 of every 100 female students who begin primary education advance to grade 10 in Liberia. Drop-outs in senior secondary education represent a pressing issue. Contributors to this issue include a lack of information on the returns to education.

87. Communication is also key for health programs. Evidence from other Sub-Saharan African countries shows that mass media messages with health campaigns, and more decentralized communication strategies with community health workers, can play a key role in improving the uptake of health services and changing behaviors to create healthier habits (Omedo et al., 2014). This is particularly important for Liberia, the country with the largest share of people who show skepticism (28 percent of survey respondents) about the effectiveness of vaccines (Monitor, 2018).

88. Communication campaigns should reach persons with disabilities and their families. Barriers in accessing critical and useful information can emerge when information is not available in alternative formats (e.g., Braille or large-print materials, use of sign language). It is important to factor in multiple delivery formats, such as voice, text, and graphics, for universal access.

89. Finally, poor communication is also important to explain behaviors that are detrimental to the health of the populace, such as open defecation. Evidence from other countries shows that improving communication campaigns to change behaviors and reduce open defecation can be highly effective. Some recent approaches, for instance, are using psychology, cognitive science, and behavioral economics to change this behavior (Devine & Neal, 2016). Also related, communication around the importance of social safety nets for poverty reduction and HC accumulation could be strengthened.

Ineffective Service Delivery

90. Weak governance is related to another critical bottleneck that hinders higher HC accumulation: ineffective service delivery that generates low quality and unequal provision of social services. GoL's capacity to design and implement programs to promote HC development is suboptimal. Relevant ministries lack adequate human and financial resources and proper knowledge to address issues that hinder HC development. This is a cross-cutting bottleneck observed in education, health, and social protection, which deeply affects service delivery and leads to poor outcomes.

91. The MoE, for example, has been struggling to address a myriad of capacity issues, which has adversely affected education services delivery in recent years. Despite the growth in Liberia's teaching workforce, the MoE has faced difficulties in adding teachers to its payroll to meet increased student enrollment. Moreover, management qualifications are not uniform across the sector. For example, there are no pre-defined qualifications or standards for school leadership roles, which leads to different school management practices and performances. A lack of data and the capacity to use and analyze data weaken the education system administration and oversight at all levels—hampering effective decision-making and limiting the MoE's ability to monitor education service delivery and progress. Information chains often lack consistent feedback mechanisms from/to the central level to/from the county, district, and school levels, limiting the ability to ensure that data is used to inform decisions.

92. While decentralized MoE structures are supposed to play an important role in education service delivery in Liberia, their capacity is constrained. The Education Reform Act of 2011 (previously discussed under Weak Governance) establishes the roles and responsibilities of County Education Offices and District Education Offices, including the hiring/dismissing of teachers, monitoring school activities, and providing administrative support to school principals. However, these offices have been struggling to perform their activities because of high turnover of personnel (nearly half of their staff were new to their positions in 2016-17), lack of proper training of staff, and insufficient material and financial resources (less than $200,000 was allocated for non-salary activities in 2015-16, for example).

93. Most school principals and staff from decentralized education offices are inadequately trained (in school management and leadership, for example) to perform their tasks effectively. Data show that most Liberian school principals did not have proper degrees or certifications in 2016. Moreover, most school principals were promoted from the teaching workforce or appointed because of political patronage.

94. The service delivery issue is also reflected in inefficiencies of cash flows and related institutional arrangements. For instance, spending on health is hindered by delays in the release of funds by MFDP. Such funds are released in the form of vouchers, which are based on submitted invoices. However, if the Integrated Financial Management Information System is down, Ministry of Health (MoH) officials must submit invoices to MFDP manually to receive vouchers, which is often a slow process. A related issue is the time-consuming and bureaucratic process of funds re-programming. When MFDP allocates funds in the financial management system, they do not always become promptly available for essential line items, which requires re-programming. Furthermore, MFDP does not make most of the budget available until the last quarter of the fiscal year, often because of revenue shortfalls. For the 2018-19 fiscal year, 40 percent of funds became available in the last quarter, hindering timely spending.

95. The health workforce lacks proper skills to provide quality health-care, and there is no clearly defined career path or incentives for working in the system, which is also characterized by low accountability and transparency. The dysfunctional management and organizational systems also hinder the availability of timely and affordable drugs and services for the sick and needy.

96. Government capacity to implement social safety nets remains underdeveloped, even though these play an important role in promoting HC formation, for example by providing cash, food, or other in-kind support that addresses child stunting or facilitates access to school or health services. The leading ministry in this area, the Ministry of Gender, Children and Social Protection (MGCSP), has capacity gaps. Moreover, MGCSP is highly reliant on project-financed staff to deliver cash transfers and other programs, which increases the cost of implementation. Until recently, the absence of a robust household social registry to identify those who need support, improve coverage, and reduce duplication of beneficiaries across programs, was one of the key bottlenecks toward program consolidation. The Liberia Household Social Registry (LHSR), currently under development, aims to address these gaps to strengthen the service delivery system. LHSR enrollment is ongoing, with almost 200,000 households currently registered in four counties and with plans to cover an additional six counties by the end of 2021. Once fully operational, the LHSR will serve as a platform to coordinate and target various interventions, enabling a multisectoral approach to address HC challenges (see Box 2).

Box 2. Liberia's Household Social Registry

The objective of the **Liberia Household Social Registry (LHSR)** is to improve efficiency, enhance capacity, and strengthen the national social protection system through the development of the basic building blocks of the social safety net delivery system.

Social Registries are digital platforms that support outreach, intake, registration, and determination of potential eligibility for one or more social programs. They centralize data integration up front, collecting/compiling data for a registry of potential beneficiaries that is then drawn upon for eligibility determination of specific programs. They can also serve as powerful tools for assessing the demand for social protection programs, by profiling specific needs and conditions of various population groups. Across the globe, Social Registries are helping connect people to a range of public services (e.g., social protection, health, and financial inclusion) based on the principle of "progressive universalism," expanding coverage and in the process prioritizing the poorest people. This improves coordination of programs and creates savings. When linked to a unique identification number, these platforms can reduce costs associated with inclusion errors.

In January 2020, as a testament of GoL's high-level commitment toward the development of an effective social safety net system, H.E. George Manneh Weah, through a Presidential Endorsement, mandated that "All Ministries, Agencies and Commissions (MACs) adopt the Liberia Household Social Registry (LHSR), as the principal mechanism for identifying beneficiaries of Social Protection programs nationwide and for managing national resources thereof, and, as such, all MACs will primarily use LHSR for identifying and targeting beneficiaries of various Social Protection programs. Development partners of the Government of Liberia, implementing their own Social Protection programs, will be encouraged to do the same."

97. Employment programs and services that can help address constraints related to job search and provide other assistance to the unemployed or under-employed are also limited in scope and availability in Liberia. The government (Ministry of Youth and Sports, Liberia Agency for Community Empowerment) has experience with cash-for-work programs, as these have been used extensively after the civil wars, including to promote the reintegration of ex-combatants and to accelerate economic recovery, but also in response either to economic crises or more generally to promote economic inclusion. However, the capacity to implement the next generation of active labor market programs remains limited. These include more complex interventions aimed at addressing multiple constraints that often inhibit productive employment (lack of job-relevant skills, lack of finance, access to market and value chains, and so forth), which have shown to be more efficacious for long-term labor market outcomes. Coordination among various programs and different ministries and agencies involved in promoting job creation and search is limited. For instance, there is almost no collaboration between the Ministry of Labor and other ministries and agencies that are involved in implementing active labor market programs. The underdeveloped national employment service at the Ministry of Labor is unable to provide meaningful services to most job seekers.

98. One of the main constraints that inhibits HC formation in Liberia is the limited availability of critical inputs to deliver social services. In many cases, this is a direct consequence of the lack of resources, but in other instances, it flows from more complex causes, such as

the inefficiencies in public service delivery, leakages in the distribution process, and lack of planning and management capacity. Below, the limited availability of inputs is explored for some of the main sectors associated with HC formation.

Health Services

99. Liberia's public health facilities lack adequate staff, prescription drugs, equipment, infrastructure, and financial resources for their day-to-day operations. Liberia has the fewest physicians per capita of any country in the world, at just 0.014 per 1,000 people, according to data from 2015 (World Bank, 2021a). Liberia also shows a specialist surgical workforce of only 1 per 100,000 population, one of the lowest in the world (LISGIS and ILO, 2010). More recent data show that Liberia had 0.5 nurses and midwives per 1,000 people, half the average for Sub-Saharan Africa (World Bank, 2021b). Community health workers do not effectively mitigate the severe shortage of physicians. Data from 2010 show that the country had only 0.1 community health workers per 1,000 people.

100. More than 50 percent of health facilities experience frequent shortages of essential medicines and medical supplies, including for addressing critical health conditions among pregnant women. Moreover, primary health facilities do not receive financing for community outreach or similar activities. A poor working environment and a lack of autonomy discourage students from becoming health-care workers and make it difficult for existing health-care workers to perform their duties.

101. In 2013, only 61 percent of births in Liberia were attended by skilled health staff; although this is slightly higher than the Sub-Saharan African average, it shows large room for improvement (UNICEF, 2021). In addition, birth registration was low, with only 25 percent of children under five years of age having their birth registered, which renders access to any social service later in life challenging. Similarly, Liberia had only 0.8 hospital beds per 1,000 people in 2010 (World Bank, 2021c). Available data suggest both the low availability of inputs that challenge effective delivery of health services, and substantial contemporaneous constraints.

Education Service

102. In terms of education inputs, Liberia also shows a lack of critical inputs to deliver good quality and equitable services, including books, classrooms, and qualified teachers. Only 61 percent of secondary education teachers are properly trained. The gender distribution, however, is much worse: only 6 percent of the total teacher workforce is female, compared to 31 percent for Sub-Saharan Africa (UNESCO, 2021). This is particularly important considering the evidence suggesting that female teachers tend to enhance female students' likelihood of staying in school, heighten their aspirations, and lower their likelihood of being subject to violence (Evans & Nestour, 2019).

Around 40 percent of secondary education teachers lack proper training.

103. For other levels of education, however, the availability of inputs is a bit better. For primary education, some 70 percent of teachers received the minimum package of training (pre-service or in-service) required for teaching, slightly above the region's average of 67 percent. The value is slightly higher for female teachers (74 percent), who constitute less than one-fifth of the total primary education teaching workforce (UNESCO, 2021). In pre-primary education, 54 percent of teachers benefitted from pre-service training.

104. Effective teacher management and deployment remain key challenges. The share of the national budget allocated to education has increased steadily since 2012/13, and approximately 80 percent of the education budget finances teacher salaries (World Bank, 2016a). However, despite recent improvements, the education payroll includes numerous 'ghost teachers,' who receive salaries but do not teach. In addition, more than 5,000 teachers serving in public primary schools do not hold the minimum teaching qualification, and many teachers do not possess the basic literacy skills necessary to teach.

105. Another critical input for the education system that shows precarious levels in Liberia is the availability of textbooks. According to the 2016 Household Expenditure and Income Survey, students borrow books from their school most of the time, except in urban areas or if they are part of the highest income quintile. Only about 10 percent of students from rural areas and from the poorest quintile own books. Even in the highest quintile, only a little more than half of the households own all the required books (LISGIS, 2017). The ownership status of schoolbooks is important because it often determines how much time students can use the books before having to share them with classmates.

106. Textbooks are essential for the provision of a quality education. Liberian parents, teachers, and school principals also place a high value on textbooks, and interpret their presence as encouraging school attendance (World Bank, 2016a). However, the findings of the Education Sector Analysis (World Bank, 2016a) highlight the challenges related to the procurement, availability, and storage of core textbooks in primary and secondary education. MoE requests for funding to support the provision of textbooks are typically not included in MFDP budget allocations. As a result, the MoE generally relies on external funding to cover costs associated with the purchase of textbooks and other relevant learning materials. Furthermore, deficiencies in the storage of textbooks have been identified as a major issue.

107. For families of children with disabilities, particularly visual and hearing disabilities, access to textbooks and learning materials in appropriate formats often raises the need for additional out-of-pocket expenses. Moreover, children with disabilities may need assistive devices to engage with learning materials. Access to such devices and accessibility learning platforms is heavily dependent on supply chains, procurement procedures, and affordable costs.

Identification-Related Challenges

108. In general, without proof of identity, people face major challenges in accessing basic services (including education, health, social welfare, and financial). Identification is key to effective targeting, monitoring, and service delivery. As previously noted, it is particularly important for citizens to be able to benefit from social protection programs, including cash transfers and pensions that foster HC formation.

109. In Liberia, one of the main challenges in accessing social services is the existence of a large portion of the population that is unregistered—a total of 2.09 million people, of whom 51 percent are women. As previously noted, birth registration is also very low, at around 25 percent, without significant differences across genders, but with important differences across areas of residence: 20 percent in rural areas and 29 percent in urban areas. It is also higher for those in the highest income quintile (31 percent) compared to those in the poorest (16 percent) (World Bank, 2016a).

110. The main challenges to scaling up identification initiatives, especially digital identification, derive from the high level of fragmentation of programs. At least five digital identity programs are conducted by different government agencies, providing a civil registry for birth and death, a passport system, a human resource management system for the civil service, a pension system, and a driver's license system. Each program uses its own technologies and processes, with little or no provision for interoperability across them (World Bank, 2016a). A National Identification Registry has begun the issuance of National Identification Cards, which is a promising initiative. Finally, technology limitations may present challenges; for example, given the manifest inability to capture fingerprints or iris scan for some persons with disabilities.

111. Liberia's National Identification Registry is rolling out a National Biometric Identification System for all citizens and legal residents, but this system appears to be exacerbating exclusion. Priority is not being given to the country's rural and poor populations, and direct and indirect costs limit increased coverage. The current model of issuing identification card at the cost of $5 with a validity of only two years proved problematic because the cost of the card is prohibitive for most poor households. In contrast, comparable neighboring countries (Benin, Burkina Faso, Côte d'Ivoire, Guinea, Niger, Togo) aim to provide universal coverage of unique identification cards at zero cost to all persons (irrespective of nationality, age, or legal status).

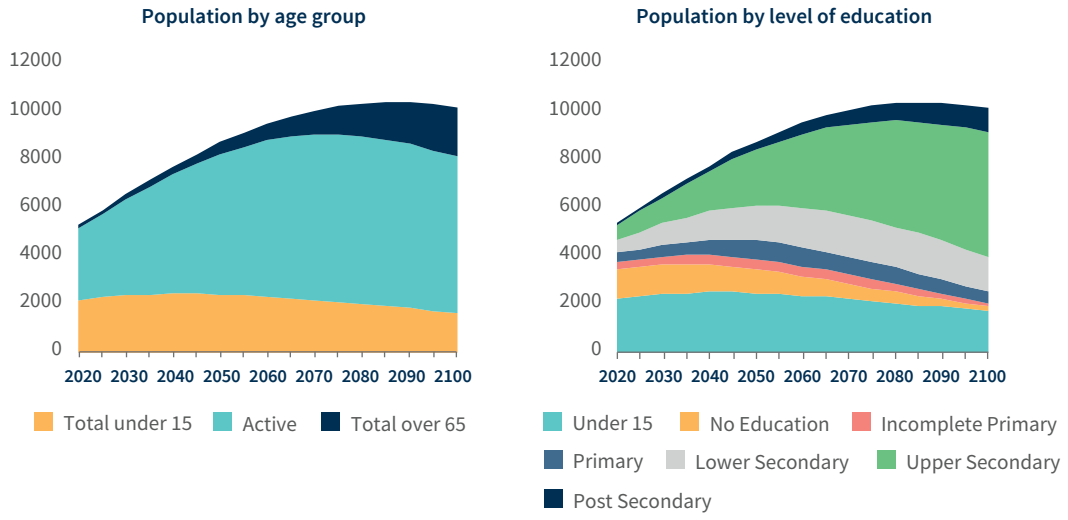
Demographic Pressures

112. Demographic trends add challenges to HC development in Liberia. The current situation represents a paradox; while the trends present an opportunity for Liberia to take advantage of a demographic dividend and grow its HC and economy, it also presents a considerable risk if this opportunity is not catalyzed with correct policies.

113. A demographic dividend is the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population is larger than that of the non-working-age, which is typically defined as those younger 15 and older than 65 (United Nations Population Fund, 2016). The greater the number of people who produce in relation to those who only consume, the greater the savings, which generates the potential for an increase in investment in HC accumulation. In such scenarios, there is also reduced pressure on spending on education and other programs targeted at families with children, such as conditional cash transfers and family allowances. This could stimulate productivity and lead to sustained economic growth. However, this is not an automatic process; it requires that those who are economically active are able to find productive jobs.

114. The data and projections prepared by the Wittgenstein Centre for Demography and Global Human Capital were used to analyze the demographic trends in Liberia. The main advantage of these projections with respect to the UN Population Division data is that they take into consideration the level of education of each age group and estimate mortality and fertility that reflect different educational levels; thus, they better reflect the effects of HC accumulation on health and population growth. The data show that Liberia has a rapidly growing population. Under the most likely demographic scenario (which assumes medium-range fertility, mortality, migration, and the Global Education Trend scenario), the country is expected to reach its population peak in 2085, with almost 10 million inhabitants. The population with at least upper secondary education, which currently represents only 13 percent of the country's potential, will increase to 34 percent by 2050. Liberia will experience an increase in its educated population, but it will still be very far from achieving universal basic education. The cohort with no education, however, will decline substantially from the current 38 percent of the populace (or 22 percent of those over 15) to 16 percent (11 percent) in 2050 (see Figure 13).

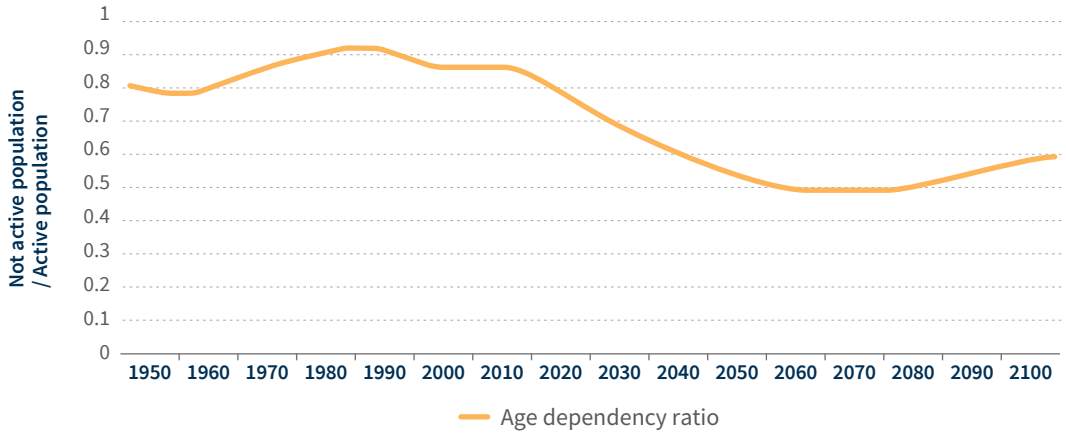
Figure 13. Liberia Population Projections



Source: Authors based on Wittgenstein Centre for Demography and Global Human Capital, 2021.

115. Liberia's age dependency ratio (essentially the inverse of the working-age population, comprising those below the age of 15 and above the age of 65) has started to decline and is projected to reach its nadir by 2065 (see Figure 14). This provides a window of opportunity for Liberia to benefit from a large share of the population that can contribute to productivity. However, the ratio is still very high, hindering Liberia from achieving higher HC accumulation in the short term.

Figure 14. Liberia's Projected Age-Dependency Ratio



Source: Authors based on Wittgenstein Centre for Demography and Global Human Capital, 2021.

116. Liberia's low investments in HC and low efficiency of HC-related expenditures risk a failure of harnessing the opportunities for a demographic dividend—or even worse, of initiating a process with counterproductive effects. Without a significant fertility decline, Liberia might face an ever-growing population base and ever-larger youth cohorts—and children will be further exposed to health risks, malnutrition, stunting, and lower public and private educational investments. This could result in higher youth dependency ratios, poverty, unemployment or underemployment, and risks of violence and instability (Canning et al., 2015). In other words, without a fertility decline, the intergenerational transmission of poverty and HC deprivation could intensify through effects on health, nutrition, and education.

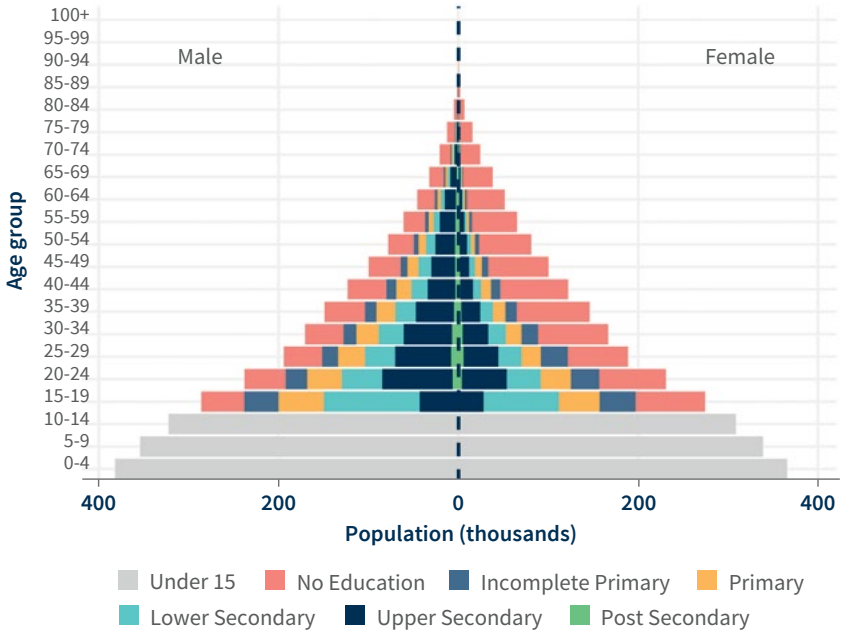
117. To accelerate the demographic dividend, child mortality and fertility rates should decline more rapidly than the current pace in Liberia. This will create a large number of workers per capita to boost the economy and labor opportunities and allow for better investments in education and health per child—both from families and the GoL. Currently, three important challenges might preclude Liberia from benefitting from a demographic dividend: (a) the low availability of high-quality jobs, (b) the low qualification of workers, and (c) the low levels of women empowerment.

The expected influx of new workers will exacerbate the currently observed job challenges in Liberia in the next years.

118. As previously noted, Liberia has been struggling to create high-quality jobs, largely because of limited HC development. This challenge will be exacerbated over the next decades, given the influx of new workers that will enter productive age. Between 2020 and 2030, the Liberian populace aged 15-64 is projected to increase by nearly 1 million or 43 percent, and the share of youth will fall only marginally from its current level of around one-third (see Figure 15). In principle, this could imply an opportunity to catalyze a demographic dividend, but it could also create serious problems if high-quality jobs are not available.

119. The issues of low qualification of workers would continue if the education system is not able to promote learning. The large influx of children will put substantial pressure on an already challenged system. The lack of appropriate workers' skills to access high-quality jobs is related to the low levels and quality of education in the country. The share of the populace living in urban areas has increased steadily since the end of the conflicts, reaching 50 percent in 2015. Urban areas, particularly Monrovia, have attracted both workers searching for employment and displaced persons seeking refuge from conflicts and instability. The urban unemployment rate is more than twice as high as the rural rate and more than three times as high for younger workers. Urban job seekers often lack the skills demanded by employers (World Bank, 2018a). Meanwhile, relatively low unemployment rates in rural areas largely reflect the role of smallholder farming as an employer of last resort. Youth unemployment is especially low in rural areas, because many young workers are engaged in unpaid household labor.

Figure 15. Projected Liberian Population Trends by Age and Education Level



Source: Authors based on Wittgenstein Centre for Demography and Global Human Capital, 2021.

120. Finally, in terms of women's health and empowerment, there is strong evidence that increasing education for adolescent girls can reduce fertility rates and improve health outcomes, which in turn might further foster the demographic dividend. Empowerment derives from social norms and legal systems that set a context for women to make choices, agency to make the choices, and resources to realize the choices. Thus, the demographic dividend could be fostered when women are empowered to make choices about their HC accumulation, HC utilization, and fertility decisions. Today, however, Liberia still shows a very high fertility rate (4.3 births per woman) that—although declining—is twice the global average. The adolescent fertility rate is 136 per 1,000 women ages 15-49, substantially above the average for Sub-Saharan Africa (101). This high fertility rate contributes to the fact that 41 percent of the population is under 15 years old.

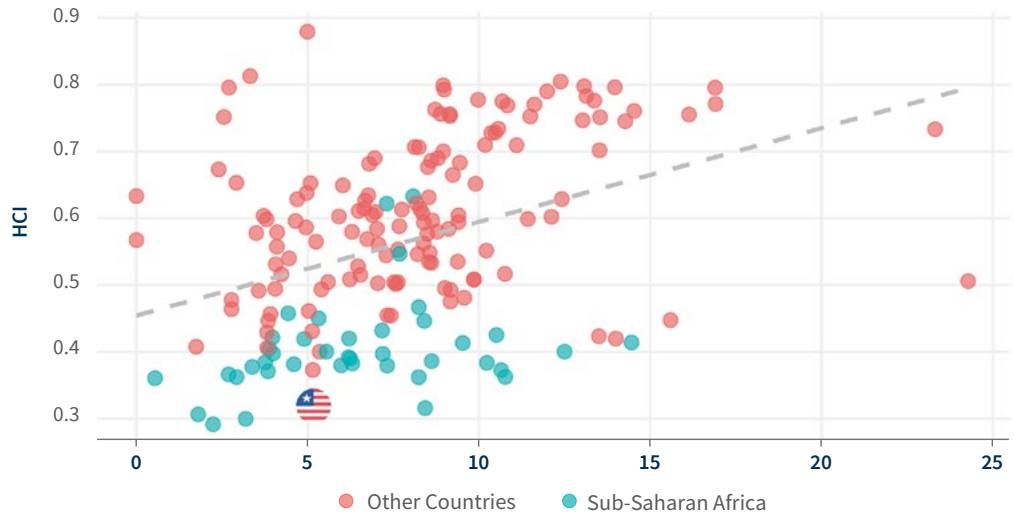
121. Even formal legal indicators show multiple constraints for women. The information provided by the Women, Business and the Law Index shows that Liberia has made progress during the last decades in terms of improving women's written rights that affect their economic inclusion. Currently, the country scores 83.8 of 100 on the index, a significant increase from 2000 (66.3). However, there are still several possibilities to catalyze greater gender equality. For example, the law does not prohibit discrimination in access to credit based on gender (World Bank, 2021d).

Low and Inefficient Spending

122. Liberia's poor HC outcomes reflect its low and inefficient spending on social sectors. Inadequate funding, the low prioritization of human development, and the paucity of substantial results obtained from these investments are major problems. An analysis based on a database of 101 countries conducted by the Africa Human Capital Plan (2019) shows that Liberia not only spends too little on social sectors, it also achieves HCI results that do not begin to match what could be expected for the extant expenditure levels (see Figure 16). An exacerbating factor is a recurring tendency to deviate from the allocated funds, with execution levels that tend to be lower than planned. In short, the country's spending on HC is challenged in terms of planning, resource availability, execution, and results for each dollar invested across the domains of education, health, social protection, and job creation.

Public spending on social sectors is low and investments in human development are not prioritized in Liberia.

Figure 16. Health and Education Expenditure as Percentage of GDP and HCI (2020 or Latest Available Year)



Source: Authors' elaboration based on Andrews et. al., 2019.

Spending on Education

123. In recent years, public spending in education has been between 2 and 4 percent of the country's GDP, and its sectoral share of total Government expenditure (see Table 6) has ranged between 12 and 15 percent between FY12/13 and FY18/19. Liberia's education sector spending as a share of total government spending is on par with the global average of 14.7 percent, but is still lower than the Sub-Saharan Africa average of 17 percent.

124. GoL spending on the education sector in nominal terms has seen some fluctuations between FY12/13 and FY18/19, notably a steady decline since FY14/15. Public spending in the education sector in FY18/19 was $69.6 million, 10 percent lower than in FY12/13 ($77.6 million) and 21 percent lower than in FY15/16 ($88.5 million). Annual education sector spending abruptly increased in FY14/15 in nominal terms, a year affected by the Ebola outbreak, resulting in an influx of off-budget loans and grant contributions from donors. Per capita public spending on education has also declined from about $18.8 in FY12/13 to $14.4 in FY18/19. The steady decline in public spending on education is concerning.

Table 6. Education Sector Public Spending, FY12/13-18/19

Indicator	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Public spending in education ($ million)	77.6	71.0	120.9	88.5	76.3	72.4	69.6
Education sector as share of GoL spending (%)	13%	13%	12%	13%	15%	15%	13%
Education sector as share of GDP (%)	2.9%	2.3%	3.8%	2.8%	2.3%	2.2%	2.1%
Per capita education sector Spending ($)	18.8	16.7	27.7	19.8	16.6	15.4	14.4
Total government spending ($, million)	593.5	530.7	979.1	685.2	525.8	492.0	518.0
GDP (current $ million)	2721	3067	3144	3177	3278	3285	3264
Total population (million)	4.1	4.2	4.4	4.5	4.6	4.7	4.8

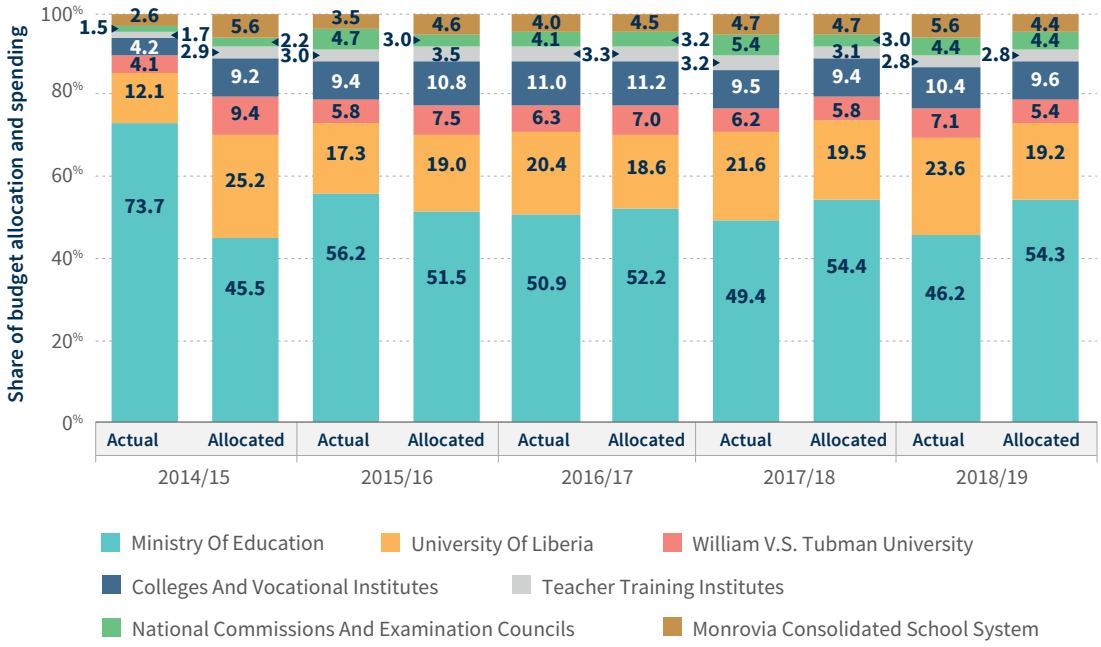
Source: BOOST Database and World Development Indicators (WDI), 2020.

125. Beyond low expenditure levels, other relevant challenges relate to the ways in which the national budget is allocated and the flow of funds. In the FY18/19 national budget, $69.6 million or approximately 13 percent of the GoL budget was allocated to education. This amount is channeled through a number of entities, including the MoE, government education institutions, and other line ministries that contribute to the sector. Other spending entities that were allocated FY18/19 budget include the University of Liberia, William V.S. Tubman University, community colleges and technical and vocational institutes, teacher training institutes, National Commission on Higher Education, West African Examination Council, and Monrovia Consolidated School System.

126. Notionally, MoE continues to be the largest spending entity of the education sector budget, with its share increasing from about 51.5 percent in FY15/16 to 54.3 percent in FY18/19. However, as will be subsequently explained, MoE's share of actual expenditure in the education sector steadily declined from 73.7 percent in FY14/15 (an unusual year because of the Ebola outbreak) and 56.2 percent in FY15/16 to 46.2 percent in FY18/19 (see Figure 17). Meanwhile, the share of the education budget allocated to the nation's two large public

universities remained steady, at around 25 percent between FY15/16 and FY18/19, with over 75 percent of this allocation attributed to the University of Liberia. In terms of actual spending, the share of total spending for the two public universities increased from 23.1 percent in FY15/16 to 30.7 percent in FY18/19. Other education sector entities with budgeted allocations were community colleges and vocational and technical institutes (between 9.4 percent and 11 percent), teacher training institutes (between 2.8 and 3.5 percent), Monrovia Consolidated School System (around 4.5 percent), and the National Commission on Higher Education and the West African Examination Council (between 3.0 percent and 4.4 percent).

Figure 17. Distribution of Education Sector Budget Allocation and Spending Disaggregated by Spending Entities



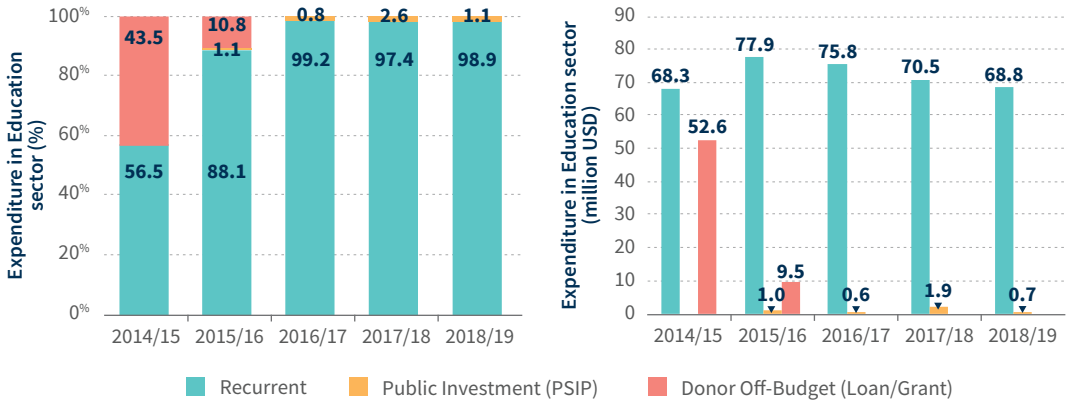
Source: BOOST Database, 2020.

127. Importantly, not all the allocated budget translates into actual expenditures. In FY18/19, the initial budget allocation to the education sector was $85.4 million, which was subsequently revised to $80.4 million, and the actual expenditure was only about $69.6 million—so only about 81.5 percent of the initial allocation and 86.6 percent of revised allocation materialized into actual expenditures. This appears to be a trend not an anomaly: of the initial budget allocated to the education sector, the actual expenditure amounted to about 88.6 percent in FY16/17 and 87.4 percent in FY17/18. Thus, the rate at which the allocated budget has translated into actual expenditures has been declining since FY16/17.

128. Recurrent expenditures account for a significant share of spending in Liberia's education sector. Barring expenditures funded through off-budget loans and grants from donors in FY14/15 and FY15/16, more than 97 percent of education sector expenditure is recurrent (see Figure 18). Expenditure on public capital investment has been less than $2 million in each year between FY14/15 and FY18/19, amounting to 1 percent or less of education expenditure

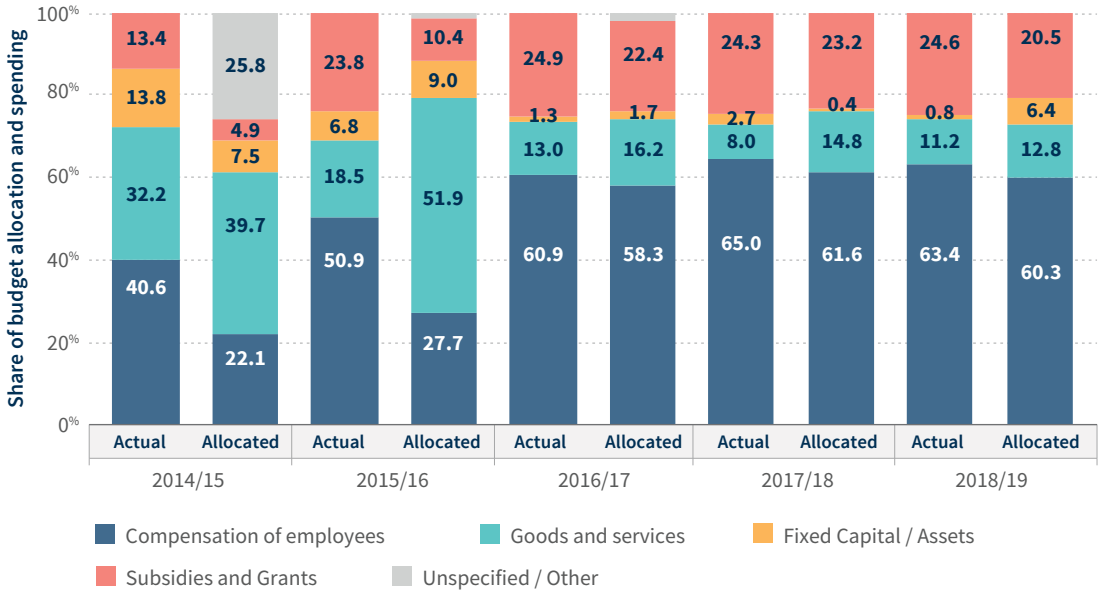
in all but one of these years. Most of the recurrent expenditure is wages. In FY18/19, compensation of employees accounted for 63.4 percent of the total expenditure in the education sector (see Figure 19). Provision of grants and subsidies accounted for 24.6 percent of the education expenditures, purchase of goods and services accounted for 11.2 percent of expenditure, and capital investment accounted for only 0.8 percent of education expenditure.

Figure 18. Recurrent vs Capital Investment Expenditure



Source: BOOST Database, 2020.

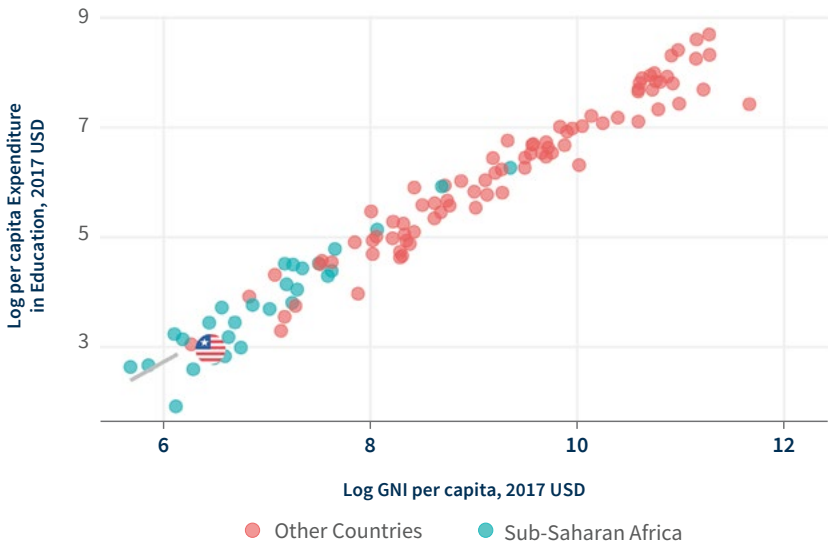
Figure 19. Distribution of Education Sector Budget Allocations and Spending Disaggregated by Type



Source: BOOST Database, 2020.

129. Figure 20 shows that Liberia's per capita education sector spending is one of the lowest globally, including with respect to its GDP and its Sub-Saharan Africa counterparts.

Figure 20. Liberian Per Capita Education Expenditure Compared to Sub-Saharan Africa



Source: Authors based on WDI, 2020.

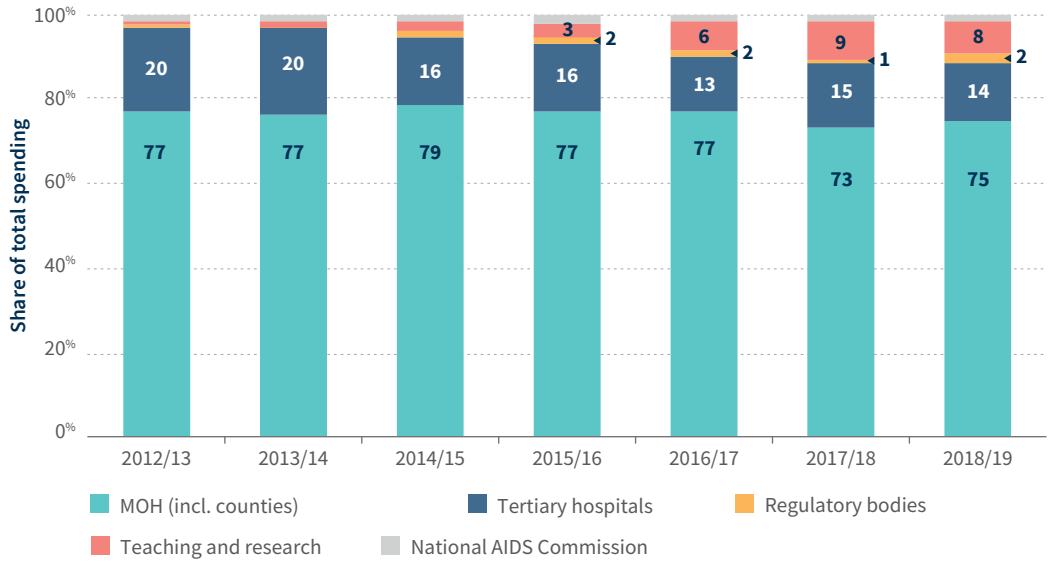
Spending on Health

130. Despite recent increases in domestic government health expenditure as a share of current health expenditure, the per capita spending of $9.7 remains far below the average $60 per capita recommended by the World Health Organization (WHO) for low-income countries (LICs) (WHO, 2019a). Although health is prioritized within Liberia's annual budget, the annual budget allocation has been severely limited.

131. In the most recent FY19/20 budget, 14.1 percent of the total government budget was allocated to the health sector. However, poor macro-fiscal conditions have resulted in a shrinking domestic resource envelope and consequently a limited government budget allocation. This situation is exacerbated because allotments (commonly known as disbursements) are often much lower than the approved health budget. Hence, despite a health budget that is close to the Abuja target of 15 percent of the annual government budget, actual domestic health spending in Liberia is insufficient to meet the country's health needs.

132. Except for FY14/15, during the Ebola outbreak, public spending on health in Liberia has remained relatively steady in nominal terms since FY12/13. Public expenditures in the heath sector have ranged between $54 million and $70 million for the last eight years. Public spending in the health sector in FY18/19 was $61.8 million, only slightly higher than spending in FY12/13 ($60.6 million), as seen in Table 7. The MoH continues to be the largest spending entity, followed by tertiary hospitals, and teaching and research agencies (see Figure 21). In Liberia, tertiary hospitals are not within the MoH remit and are treated as separate spending entities. Teaching and research agencies have received small increases in funding, but their overall budgets remain low relative to the MoH. As indicated in Figure 21, MoH spending has accounted for approximately three-quarters of the health sector budget in recent years, peaking in FY14/15 (79 percent) and falling to its lowest share (73 percent) in FY17/18.

Figure 21. Composition of Health Sector Spending Disaggregated by Spending Entities



Note: this data represents total health sector spending in Liberia, which includes expenditures by MoH, John F. Kennedy Medical Center, Phebe Hospital and School of Nursing, Jackson F. Doe Hospital, and teaching and research agencies. Hence these numbers are slightly higher than the data reported for domestic government health spending in WHO's Global Health Expenditure Database.
Source: BOOST Database, 2020.

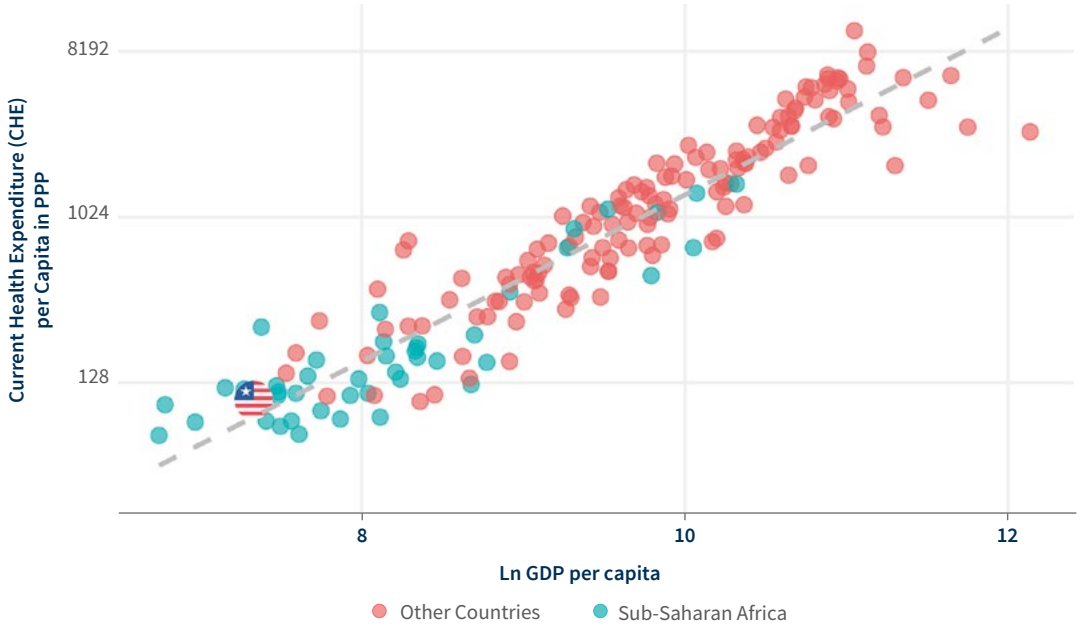
Table 7. Health Sector Public Spending (including On-budget External Financing, 2012/13-2018/19)

Indicator	2012/13	2013/14	2014/15	2015/16	2016/17	2917/18	2018/19
Public spending in health ($ million, nominal)	60.6	55.1	69.8	63.9	54.1	63.1	61.8
Health sector as share of GoL spending (%)	10.7	10.4	12	12	10.5	13.2	14.1
Health sector as share of GDP (%)	2.2	1.8	2.2	2.2	1.6	1.9	1.9
Per capital ($) health sector spending	15.6	13.9	17.2	17.2	12.7	14.54	13.9

Source: BOOST Database, 2020.

133. As shown in Figure 22, Liberia's low domestic health spending, while significantly lower than WHO recommendations, is approximately on par with other LICs globally and in Sub-Saharan Africa.

Figure 22. Per Capita Domestic Government Health Expenditure



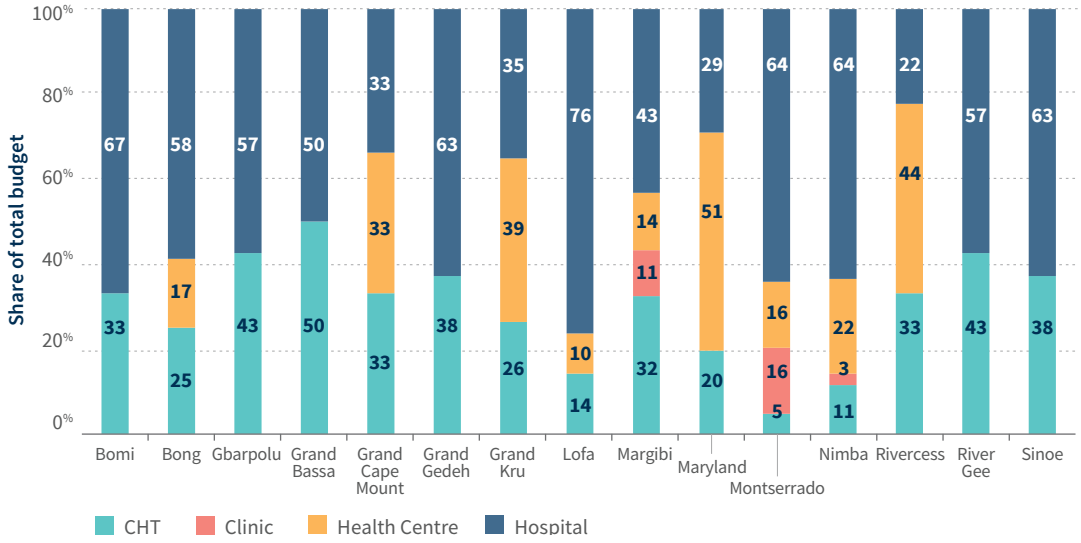
Source: WDI, 2017; WHO Global Health Expenditure Database, 2017.

134. The health sector budget is based on historical trends allocated by incremental line-item budgeting. The budget is then divided among 12 spending entities, including MoH (including JJ Dossen Hospital, which is not treated as a separate spending entity), referral hospitals (Phebe Hospital and Jackson Doe Hospital), one tertiary level national hospital (JFK Hospital), regulatory bodies, and teaching and research agencies. Funds are released from the MFDP to MoH for staff compensation (salaries and allowances), goods/services (which includes essential medicines and consumables), and capital expenditures. Staff compensation is centrally administered by MoH. Funds are released by MoH to County Health Teams (CHTs), health centers, and county hospitals for non-salary and non-essential medicines and health supplies expenditures. JFK Hospital, Phebe Hospital, and Jackson Doe Hospital all receive funds from MFDP directly (i.e., these hospitals are treated as individual spending entities in Liberia's health sector).

135. The proportion of the budget allocations to counties from both GoL and external financing has steadily declined, reaching a low of 14 percent in FY16/17, down from 22 percent in FY12/13. The county share of external funding declined even more dramatically, from 69 percent in FY12/13 to 20 percent in FY16/17—although some of this decline might be explained by the shift to central administration of salaries (MoH) from subnational levels.

136. Budget allocations to health facilities vary significantly among counties and by type of medical facility (see Figure 23), with hospitals receiving the majority of county grants. For example, hospital shares of county grants range from 22 percent in Rivercess to 76 percent in Lofa. At the same time, several counties have health centers that receive no specific grant funding, meaning that there is no line-item allocation for these centers.

Figure 23. County Budgets, Disaggregated by Type of Health Facility



Source: BOOST database, 2020.

137. Health facility grants for health centers and hospitals are allocated primarily to publicly owned facilities. However, the opposite is true for health facility grants for clinics, which are largely allocated to privately owned-for-profit facilities. GoL grants, which are intended primarily for non-salary, essential medicines and health supplies (EMHS), and recurrent costs, form a relatively small proportion of spending by CHTs. GoL funding accounts for 33 percent of funding received by CHTs (on average), while external funding accounts for 67 percent.

138. Staff compensation and steadily declining grants to counties constitute the bulk of MoH spending. Spending on compensation has risen substantially over the past few years, from 39 percent in FY14/15 to 76 percent in FY18/19, largely because of the efforts to incorporate staff into the MoH payroll. It should be noted that while spending on staff compensation by MoH has increased, total MoH spending has not. Instead grants to CHTs, health centers, and county hospitals have been substantially reduced (grants now exclude salaries). MoH spending on essential medicines and supplies is woefully inadequate at $858,754 in FY18/19 (6 percent of total spending within MoH). Moreover, spending on essential medicines has not risen above 6 percent of total MoH spending since FY15/16.

139. County-level domestic health spending has been steadily declining in comparison with central spending, from 41 percent in FY12/13 to 17 percent in FY16/17. This decline is cause for concern because decentralization will lead to increased resource needs as counties become more responsible for providing essential health services.

140. The largest proportion of non-salary, non-EMHS spending occurs at county-level facilities that provide secondary-level care. GoL spending on secondary-level care in FY17/18 accounted for 57 percent of total spending, a significant increase from 43 percent in FY14/15. However, it should be noted that secondary-level facilities in Liberia also provide a significant share of Primary Heath Care (PHC) services. This is especially true for health centers and county hospitals, given their focus on maternal and child health.

141. In addition to expenditure patterns, Liberia also presents huge challenges in terms of efficiency. Effective budget execution is critical for effective service delivery, particularly in the context of severe resource constraints. Challenges in disbursements and actual spending for non-salary expenditures within MoH means that while staff are available at the facilities, limited funding is available for service delivery. Significant variations in disbursements on an annual basis indicate that there is no guarantee that the approved budget for non-salary line items will materialize in the form of release. This finding aligns with well-documented shortages of essential medicines and supplies at facilities in Liberia.

142. County grants face challenges in terms of both disbursements as a share of approved budgets and actual spending as a share of disbursements of county grants. Based on limited data available for analysis, it appears that depending on the year, there are differences in allotments and actual spending, except for FY14/15 (this is likely a reflection of the Ebola outbreak, when released funds matched approved budgets and all released funding was spent).

143. In recent years, primary- and secondary-levels of care have seen improvements in budget execution, in terms of disbursements and actual spending. However, primary care performs poorly in comparison with secondary and tertiary facilities. In FY17/18, primary care received the lowest proportion (73 percent) of the approved budget, while secondary and tertiary level facilities received 91 percent and 127 percent, respectively. Furthermore, primary- and secondary-level facilities utilize nearly all the approved budget that is released to them; however, tertiary facilities have consistently been unable to spend released funds. This trend has worsened in recent years.

144. Secondary-level hospitals receive the bulk of county health grants (74 percent) and spend nearly all the released funds. This leaves only 26 percent of the available funding for the primary level and for administration of the county health system. PHC is the most efficient (and arguably the most equitable) type of service within the sector. Ensuring the means to provide basic health services—and particularly preventive and promotive health services—as close to the population as possible is widely recognized as both an efficient and equitable strategy for health-care provision, particularly in low-income settings.

145. As an additional challenge, MoH spending is hindered by delays in the release of funds by MFDP. Procurement processes are complicated, further delaying actual spending. Approval of the national budget can be delayed, sometimes by up to three months, resulting in procurement delays. A provision in the procurement law prohibits entering into a procurement contract until the budget has been approved (excepting expenditure on recurrent goods of 1/12th of their previous year's budget for every month that budget approval is delayed). Moreover, contracts above 250,000 Liberian dollars (LD) must be reviewed by both MFDP and MoH, a process that can take up to three months.

146. While funding to the health sector as a share of the GDP has increased in recent years, it remains insufficient to provide basic health services to the populace and achieve sustained progress on actual health outcomes. Explanatory factors for this situation include (a) limited per capita spending, (b) funding has been largely steady in nominal terms, (c) shifting pattern of expenditures (i.e., incorporation of wage compensation costs from subnational entities to MoH), and (d) administrative inefficiencies. Poor accountability and lack of transparency exacerbate these factors.

Spending on Social Protection

147. GoL social protection spending is limited and is dwarfed by that supplied by donors. Indeed, more than 80 percent of such spending is financed by development agencies (Beegle et al., 2018). This simultaneously expands and undermines coverage and sustainability, as project-based financing tends to induce stop-and-go program implementation and often fails to enhance (when it does not actually weaken) capacity development.

148. In addition, until recently, social expenditures have not been prioritized in the budget. While the Pro-Poor Agenda for Prosperity and Development (PAPD), covering 2018-2023, has a social protection national budget spending target of 0.4 percent of GDP, little progress has been made to date in achieving this target.

149. Liberia's social insurance system, which is limited to civil servants and formal sector workers, does not now face funding constraints as the level of contributions exceeds current costs given Liberia's youthful demographics. Of course, pension funds are designed to run initial surpluses, as the majority of workers in a new system will not yet have qualified for benefits. Typically, it takes up to 60 years for a pension fund to mature; Liberia's National Social Security and Welfare Corporation (NASSCORP), having begun in 1987, has not yet reached maturity. However, there are risks to fiscal sustainability of this fund, including risks related to arrears, the fund's investment portfolio, and administrative costs.

- GoL has not always regularly paid its contributions as employer, resulting in periodic accumulation of significant arrears. Although GoL contribution payment arrears were cleared prior to the last general election in 2017, new arrears are beginning to accumulate. As the pension fund reaches maturity, the shortfall in government contributions will begin to have fiscal implications.

- Although there is limited information available on the investments made by NASSCORP (itself a risk), a large portion of the reserves seems to be invested in real estate, which is both highly illiquid and volatile.

- Administrative costs in NASSCORP are quite high, with 27 percent of contribution revenue being spent on administrative costs in 2014, the latest year for which there are published numbers.

Socio-Cultural Norms

150. Socio-cultural norms can broadly be defined as rules or expectations of behavior and thoughts based on shared beliefs held by a particular cultural or social group. While often unspoken, norms offer social standards for appropriate and inappropriate behavior that govern what is (and is not) acceptable in interactions among people (WHO, 2009). Socio-cultural norms are highly influential over individual behavior in a broad variety of contexts, including discrimination against women and people with disabilities (National Academies of Sciences, Engineering, and Medicine, 2018).

151. In Liberia, socio-cultural norms have a direct influence on a wide spectrum of sectors and issues affecting women, children, and people with disabilities. For Liberian women, existing norms affect both access to and demand for education and health services. According to the 2010 Liberia Labor Force Survey, 60 percent of Liberian women ages 15-34 were literate in 2010, compared with 81 percent of men. One of the reasons for this is that female respondents faced more barriers to education than males, with early pregnancy and childcare or homecare being the primary additional burdens (USAID, 2019a). Girls are also pressured to find a partner (the median age at first marriage is 18.8 years), even at the added risk of leaving schooling (UNFPA, 2021). Female students report harassment and even extortion by teachers for admission into class or sex-for-grades. High teenage pregnancy rates are compounded by a low uptake in family planning, which is fueled by societal misconceptions about contraception. Discrimination against pregnant girls and young women by school officials is a barrier to educational attainment. For example, although female students are not required to leave school or attend night school while pregnant, school officials often direct or encourage pregnant students to do so until after they have given birth.

Liberian women face more barriers to education than men. Challenges relate to existing socio-cultural norms, including on early marriage.

152. Social norms also reinforce women's role as mothers and domestic caregivers, which crowds out productive employment. Women are expected to take care of most household tasks, including cooking, fetching wood and water, cleaning, childbearing and rearing, and taking care of sick or elderly family members. More than one-half of Liberian women cited these activities as explanation for not working (Abril, 2008). Traditional beliefs about women and men's roles limit women's involvement in productive activities (World Bank, 2013). This extends to workplace behaviors, where sexual harassment is a frequent occurrence. Qualitative assessments on job training programs in Liberia found that young women preferred self-employment or female-dominated industries to avoid threats of sexual harassment (Abril, 2008). Additionally, more than 12 percent of the populace believe that education is more important for boys than girls. This suggests that, all other things being equal, girls in families that include both boys and girls are unlikely to receive as much encouragement to enter into, and to continue farther in, schools than are boys (Emile et al., 2020).

153. Cultural reasons (Spotlight Initiative, 2020)—as well as financial factors in a context that commodifies young girls as future brides, if certain standards are met—also help explain the harmful practice of imposed female genital mutilation (FGM). In addition to its assault on human dignity, the practice often entails substantial adverse health consequences on individuals, ones that cascade over time through reduced productivity and thus economic growth of a country. Significantly, an estimated 32 percent of females in Liberia ages 15-49 have undergone FGM, and the value is much higher for those in rural areas (43 percent) and those women without education (50.7 percent). In some counties, such Gbarpolu, more than three-quarters of women have undergone FGM. Girls and women from the poorest households are twice as likely to have experienced FGM as those from the richest households. Of those who have gone through FGM, 34.6 percent went through the procedure before the age of 5, 16.7 percent between the ages of 5 and 9, 33 percent between the ages of 10 and 14, and 21.6 percent after the age of 15 (Spotlight Initiative, 2020).

154. For people with disabilities, stigma, stereotypes, and negative attitudes remain some of the most significant barriers to their access to services. These obstacles impact the provision and quality of services, both mainstream and disability-focused, across sectors including education, health-care and nutrition, social protection, water, sanitation, and hygiene (WASH), as well as access to jobs. Stigma and misconceptions around the capabilities and productivity of persons with disabilities can directly impact the type and quality of care they receive in health and rehabilitation settings. This is also a dominant feature of whether they can equally access opportunities to participate in education and the labor market. Certain groups among persons with disabilities, such as persons with psychosocial disabilities, face even higher levels of stigma and discrimination.

155. A recent study found that Liberian citizens with disabilities faced a higher chance of exclusion and lower levels of community participation. Carew et al. (2019) surveyed 485 households of persons with disabilities and 538 households with persons without disabilities in Liberia. The study found that participants with disabilities had poorer community relations and lower levels of community participation than persons without disabilities. They felt less included in decision-making in their communities and experienced lower levels of trust with neighbors.

156. Another effect of socio-cultural norms relates to open defecation. In Liberia, 40 percent of the population practices open defecation, and this rate is higher (at 60 percent) in rural areas

(WHO, 2019b). Even though the main reason is the lack of infrastructure, studies from other countries have shown that better infrastructure does not always translate into lower levels of open defecation, since at least a portion of this behavior is explained by social norms. More specifically, studies of other countries have found several pathways through which social norms inhibit the use of toilets, and at least one of them seems to be present in Liberia: the belief or expectation that others do not use toilets or latrines or do not find open defecation unacceptable (Gauri et al., 2018). Once again, experiences from similar environments show that low-cost information campaigns that target mental models can effectively improve pro-latrine beliefs and practices, as well as shift perceptions of why many people still find open defecation acceptable.

Other Demand-Side Constraints

157. Even when services are available, there are other constraints that prevent Liberians from accessing them and investing in HC accumulation. These are constraints on the demand of basic services that can increase HC, including the high levels of poverty that prevent HC investments, the lack of information, and the delayed entry to the education system.

158. First, the alarming levels of poverty are a clear bottleneck that prevents larger expenditures on HC from households. In particular, the high poverty rate and the many households that are only marginally above the poverty line hinder private investments in HC. According to the 2016 Household Expenditure and Income Survey, more than half of the population was living below the national poverty line in 2016, with higher poverty rates observed in rural areas. The national headcount poverty rate increased to an estimated 55.5 percent in 2019, reflecting negative per capita GDP growth rates and rising inflation (World Bank, 2020a). The highest levels of poverty are found in households in which the head has no formal education, 66 percent, compared to 58.7 percent for heads with at least some primary education, 43.8 percent for heads with at least some secondary education, and 15.9 percent for heads with post-secondary education.

159. Lack of sufficiently productive and higher-earning jobs with some stability in wages and employment is the major cause of poverty. Most poor Liberians live in large households and derive at least some of their income from smallholder farming. Poor households tend to have undiversified income sources, high dependency ratios, and older and less-educated heads of household. They also tend to be located relatively far from key infrastructure, markets, and public institutions. In urban areas, poverty rates are highest among those working in the informal sector, where low-productivity jobs dominate and earnings are inadequate and volatile.

160. These high poverty levels affect HC outcomes in many ways. First, there are evident effects on health and nutrition outcomes, including through the limited resources that families have to spend on the minimum necessary consumption of food, which in turn aggravates stunting rates. The 2016 HIES noted that the "food poverty" level in Liberia was 39.1 percent. This figure was higher in rural areas (50.9 percent) than in urban areas (28.1 percent). The level of food poverty in rural areas, however, was significantly lower than the absolute poverty headcount (71.6 percent vs. 50.9 percent), while the levels were nearly the same in urban areas (31.5

percent vs. 28.1 percent). This indicates that in rural areas some households can meet their food needs even though they had relatively little non-food consumption. This is likely the result of subsistence farmers in rural areas raising sufficient food to eat regularly but having little access to income-generating activities.

161. In other non-food related spending, health composed a limited share (1.9 percent) nationally, with 2.4 percent and 1.5 percent in rural and urban areas, respectively. The share was the highest for the lowest income quintile, 2.7 percent, and lowest for the highest quintile, 1.2 percent, though similar to education, the overall amount spent was the greatest for the highest quintile. It should be noted that this includes regular health spending only, such as preventative care and treatment for illnesses, but not extraordinary expenses, such as hospitalization.

162. In addition to the effects on health expenditures, the high poverty levels also affect the capacity of households to invest in education. Of non-food spending, nationally 12.5 percent of households' non-food budget was spent on education, though there was a sharp urban (16 percent)-rural (8.6 percent) disparity. Spending was highest in Montserrado county at 16.5 percent of non-food spending, and lowest in the North Western part of the country, at 9.1 percent.

163. Although primary education is free and compulsory on paper, the situation is different in practice. About 20 percent of children attending public primary schools report making out-of-pocket expenditures on education. On average, students attending public primary schools report annually spending $4.6 on education (see Table 8). About 20 percent children attending public junior secondary schools, 50 percent attending public senior secondary schools, and 70 percent attending a public university report making out-of-pocket education expenditures. Average annual out-of-pocket expenditure for those attending public school or university is $9.4 for junior secondary, $14.9 for senior secondary, and $81.4 for university students. These costs seem to be prohibitive for some students from poor households, as 11.3 percent of primary school-age children and 19.1 percent of junior secondary school-age children mention monetary constraints as a main reason for never attending school. Average out-of-pocket expenditures are larger for higher levels of education and much larger for private schools or universities.

Table 8. Annual Out-of-pocket Expenditure on Education by Levels of Education and Type of Institutions ($)

	Overall	Public	Church/ Missionary	Private Non-Religious	Other
Primary or below	14.8	4.6	23.9	29.9	12.5
Junior Secondary	19.7	9.4	31.5	28.6	23.1
Senior Secondary	35.8	14.9	53.2	39.3	33.2
University	188.3	81.4	316.5	260.4	88.6

Source: Authors based on HIES (2016).

164. Demand-side issues feature prominently when children are asked their reasons for not attending school. Asked among the primary school age (6 to 11 years old) children who have

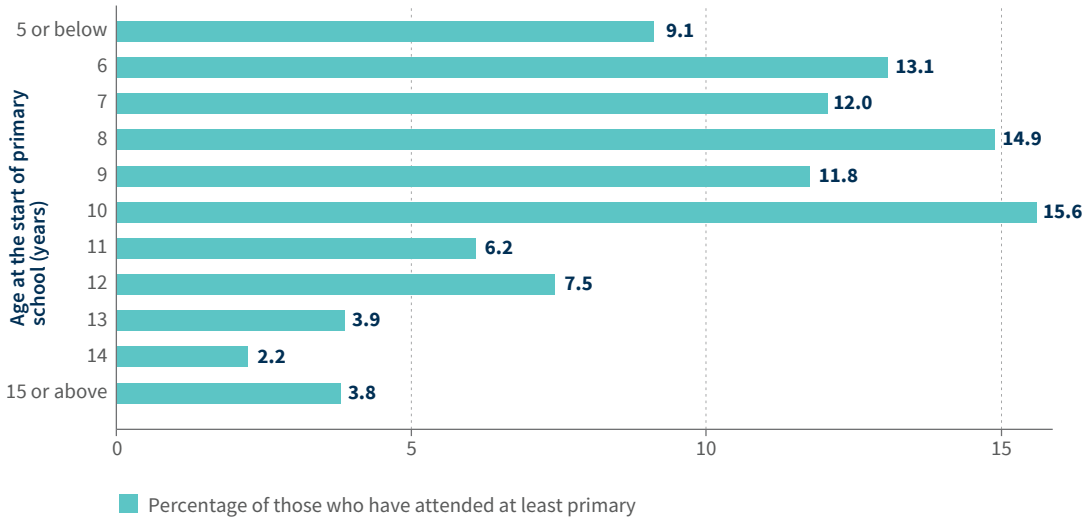
never attended primary or higher level of school, 11.3 percent cite financial constraints or having no money as one of the two main reasons for not attending school. Similarly, 19.1 percent of junior secondary school age (12 to 15 years old) children who have never attended primary or higher level of school mention having no money as one of the two main reasons for never attending school. Additionally, financial constraints were one of the main reasons why girls in Monrovia ages 12 to 15 had dropped out of school (World Bank, 2016a). This included 34 percent missing school at some point because of lack of money for school fees and 50 percent expecting financial hardship would be main reason they may leave school in the future.

Around 2 in each 10 children ages 12 to 15 report the high costs of education as a key reason for not attending schools.

165. Second, informational constraints also seem to be an important factor in lack of demand for schooling among some children. About 1.6 percent children of age group 6-to-11 years and 4.7 percent of age group 12-to-15 years stated that their parents did not allow them to attend school. Some 0.4 percent 6–11-year-olds and 1.9 percent of those 12-15 expressed a lack of interest, while 0.3 percent of 6-to-11-year-olds and 1.6 percent of those 12-to-15 spoke of a need to work or help at home as a main reason for never attending school. Although there could be several reasons for parents to prevent their children from attending school, lack of information on the benefits of education, as mentioned before, could play an important part. Studies have shown that the perceived return to education is low among parents and that the provision of information on the actual returns to education help induce higher demand for education. One of the reasons why perceived returns to education could be low is because children and parents in poorer parts of the country, where opportunities for people with higher educational attainment could be lower, are more likely to be exposed to educated people with relatively low earnings.

166. Finally, another important factor contributing to low levels of HC formation is delayed school entry. Only about 22 percent of children in Libera who have attended at least primary school report starting primary school at the age of 6 years or younger (see Figure 24). About 39 percent report starting primary school when they were between 7 and 9 years-old and another 39 percent report starting primary school when they were of age 10 years or older. Children that start primary school at a later age are more likely to drop-out of school before completing primary level or higher levels of school, leading to low overall educational attainment and low accumulation of HC. In fact, the effects of dropping-out go much beyond the education sector and tend to be associated, for instance, with early pregnancies and childbearing, thus contributing to the intergenerational transmission of HC challenges.

Figure 24. Age at Inception of Primary School



Source: Authors based on HIES (2016).

The Fragility Context

167. Liberia is a fragile state (World Bank, 2020b) that has not fully recovered from its two devastating civil wars and from multiple exogenous and domestic policy shocks since 2014. The series of civil wars were marked by extensive loss of life, suppressed economic activity, destruction of vital infrastructure, and the absence of functioning social services. Recent estimates have calculated the economic cost of violence in Liberia at around 7 percent of its GDP in 2019 (IEP, 2020). Fragility helps explain many of the country's challenges, including with respect to poor results in terms of HC accumulation and utilization.

> Two recent civil wars led to extensive loss of life, low economic activity, and damages to infrastructure.

168. The most direct effect was experienced through the loss/diminution of human resources. Liberia's civil wars killed 10 percent of the population, displaced a majority, and led to tens of thousands of people being forcibly recruited into combat. This last issue includes many thousands of children recruited as child soldiers (Carroll, 2003), whose experiences were devastatingly traumatic beyond the 'mere' disruption of their education, and whose consequences in terms of injury/psychological wounding and consequent disability will continue to haunt them across their lifetimes.

169. In addition to the immediate loss of human life, the civil wars had, and continue to have, enormous effects on the accumulation of HC and consequent economic growth. The analysis

of the adult survival rate shows that while many countries free of conflict experienced a sustained increase between 1900 and 2003, Liberia's trajectory is much more irregular and deformed.

170. The health sector was particularly affected as it lost an invaluable number of its skilled human resources and its institutional asset base. The capacity and organizational abilities of institutions essential for enabling an effective and efficient health system to function were severely depleted.

171. A significantly higher percentage of school age children exposed to the violent civil conflict in Liberia cite disability as one of the two main reasons for never attending primary or higher levels of education. It should be noted that the children of age group 12-to-15 years at the time of the survey in 2016 were exposed to the war in-utero or during the first few years of their lives, as they were born between 2001 and 2004, when the country was undergoing a violent civil conflict. Children of age group 6-to-11 years were, however, born after the civil conflict ended and thus were not directly exposed to the conflict. This suggests that the children that were exposed to war may be more likely to be physically disabled or more susceptible to illness, leading to lower accumulation of HC in terms of both health and educational attainment. This reinforces the findings in the literature that the intergenerational or long-term impacts of civil conflict are significant and can greatly diminish the ability of children exposed to conflict to accumulate HC.

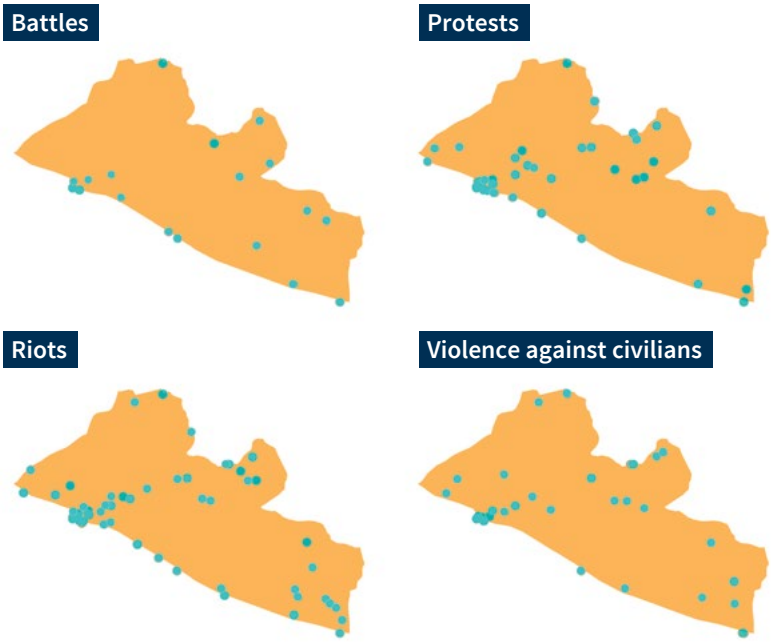
172. Evidence from other countries has shown the large effects of civil conflict on HC development. For instance, some studies have associated exposure to violence with significant declines in educational attainment, not just in the short term, but also in the long run (Chamarbagwala & Moran, 2011). Suggestive evidence shows that the effect on maternal health status and the subsequent effect on child health drives, intergenerationally, the long-term results on HC formation (Leon, 2012).

173. The consequences of the war are still felt, as many of the impacts have been transmitted across generations. Although Liberia is not in active conflict anymore, there are still many manifestations of fragility, conflict, and violence that affect HC accumulation and utilization. The paragraphs below focus on four of them: (a) attacks on health and education facilities; (b) extreme institutional fragility; (c) low interpersonal trust; and (d) widespread interpersonal violence in the country.

Attacks on Schools and Health Facilities

174. While active civil war is over in Liberia, other forms of violent clashes still exist and, to some extent, are growing. Two of the main sources of conflict are disputes among ethnic groups and clashes over land or resources, which often overlap. To understand the patterns of conflict, an analysis of the Armed Conflict Location and Event Data Project (ACLED) database was conducted (see Figure 25). ACLED is the most comprehensive source material for disaggregated conflict-event coding. The database shows that between 2010 and 2021 Liberia suffered at least 1,511 episodes of political violence. This includes 597 battles and 257 episodes of violence against civilians (ACLED, 2021).

Figure 25. Types of Political Violence in Liberia (2010-2021)



Source: Authors based on ACLED (2021).

175. Although these episodes have clear effects on HC outcomes, there is a more direct connection between violence and HC accumulation. This occurs when acts of political violence occur in facilities dedicated to the provision of public services that have a clear connection with the accumulation of HC. As an example, the ACLED data shows that in the last decade, schools and other educational buildings were the target of more than 100 acts of violence, although a large preponderance of these were protests and riots stimulated and intensified by the low quality of services offered to the citizenry.

176. Attacks on educational facilities have clear adverse impact on education outcomes. A recent study of Nigeria has shown that one additional conflict event in a 5-km radius from a child's village during the previous academic year reduces the child's probability of school enrollment the next year by two percentage points and the average school enrollment by four percentage points (Molini et al., 2019). Although the characteristics of the conflict in northern Nigeria are very different from the experiences in Liberia, it is prima facia a plausible hypothesis that these episodes of violence will have detrimental effects (even if less dramatic).

177. Similarly, hospitals and other health facilities were targeted at least 33 times. Even water treatment facilities (which are critical to distribute clean water and thus reduce water-borne diseases, minimize stunting levels, and foster favorable health outcomes) were targeted on at least 10 occasions. More generally, fragility has been documented as a key factor influencing the access to WASH-related services, since fragile countries tend to face challenges to manage their shared water resources in a sustainable, equitable, and collaborative manner (The Economist, 2020).

Institutional Fragility

178. One of the main legacies of the years of conflict in Liberia is severe institutional fragility. Despite the political will to strengthen the public sector, public institutions continue to suffer from persistent high centralization and concentration of power, high levels of corruption, and a lack of human and organizational capacity. Liberia's rating in the quality of public administration on the World Bank's Country Policy and Institutional Assessment Index has been consistently low, between 2 and 2.5 during the last decade (on a scale where 1 is low and 6 is high).

179. Although corruption is a multicausal phenomenon, institutional fragility is typically attributed as one of its main causes. In Liberia, the Global Corruption Barometer for 2019 documents that 53 percent of public service users paid a bribe during the last year (more than twice the average for Sub-Saharan Africa), and 47 percent of people thought that corruption had risen in the previous 12 months. Since corruption tends to penetrate across all sectors of government, institutions in charge of promoting HC development are most likely also affected, which means that access to certain social services is, in some cases, mediated by the payment of bribes, contributing to the already vast inequities of the system.

Trust

180. The fragility, conflict, and violence context also contributes to the low levels of trust in the Liberian government. According to the Social Cohesion and Reconciliation (SCORE) Index (2018), the average confidence in civic and government institutions is 5.9 in Liberia, on a scale from 0-to-10. This average value incorporates wide variances, with counties such as Grand Bassa with a score of only 3.6. More specifically, although the average confidence in the health sector is 5.6, it is only 3.0 in Grand Bassa.

181. These findings are not surprising given the documented correlation between HC and levels of interpersonal trust. In effect, the *World Development Report 2013* shows a clear relationship between the index of peaceful, collective decision-making (a quantitative indicator that aggregates data on political stability, the absence of violence, and voice and accountability) and measures of trust and civic engagement. Significantly, the relationship runs in both directions (i.e., lack of interpersonal trust can foster conflict and violence).

Interpersonal Violence

182. Civil conflict and violence severely restrict access to basic economic and social opportunities, with both immediate and long-term adverse consequences for the citizenry, especially young males. In many fragile states (Liberia being no exception), poor young men with limited economic opportunities drive high rates of crime and violence and are easily mobilized into destructive activities, such as rioting and rebellion. For weak governments, these young men often pose one of the greatest risks to stability and economic growth. According to the most recent estimates, 13 percent of Liberian youth are not in education, employment, or training (International Labor Organization, 2020). The combination of low school enrollment rates, limited access to job opportunities, and poverty and deprivation provides a fertile ground for violence.

An estimated 13 percent of Liberian youth are not in education, training, or employment, which can contribute to unrest and violence.

183. The homicide rate in Liberia is 10.4 per 100,000 inhabitants, just above the standard threshold (10) for a classification of "epidemic." As with the global norm, the rate is even higher for males (16.3), reaching its peak (19.6) for males between the ages of 15 and 29 (WHO, 2017a). The relationship between violence and the accumulation of HC is bi-directional. Limited investment/uptake in education tends to generate higher levels of violence, while violence reduces education outcomes and thus HC accumulation, as has been shown across multiple countries (Koppensteiner, & Menezes, 2019). Other studies have demonstrated the significant medical costs incurred in health systems because of violence (Brand & Price, 2000).

184. Although deaths and gross physical injuries are concentrated among (particularly younger) males, girls and women in Liberia are the main (but far from sole) victims of other forms of violence. Sexual and gender-based violence (SGBV) is widespread. Progress in peacebuilding and security over the last decades has not translated into actions to eliminate violence, particularly against women and girls. A recent report (Postmus et al., 2015) examining gender-based violence and abuse among Liberian students found that more than 96 percent of surveyed children reported that they had experienced 'peeping,' inappropriate touching, demands for transactional sex, or rape, with roughly equal rates across genders. Roughly one-quarter reported that they had been forced to have sex when they didn't want to (30 percent girls and 22 percent boys) (Postmus et al., 2015). The same report highlights the rampant issue of transactional sex for grades, an issue seen in many Liberian schools. The report shows that many people think sex between teachers and girl students is quite common. Much of this will be transactional (i.e., the teacher—typically male—will use his position of power to procure sex with a student in return for something, such as a higher test grade or reduced fees). These transactions may have the passive concurrence of parents who perceive them as a possible route to financial assistance for the household. Some liaisons are explicitly forced, with the student threatened with failure/dismissal or other punishment if they don't comply (Ward et al., 2005).

185. Gaps in the legal framework render women and girls vulnerable to SGBV in schools. While the Education Reform Act of 2011 specifies reprehensible sexual offences (sexual coercion, intimidation or blackmail, sexual assault, rape), it does not define and provide means to implement administrative punishments for sexual offenses by school administrators, school agents, or students, such as terminating perpetrators' employment or expelling student offenders. In many cases the obligation of school authorities ends after they have reported the case to the police. For instance, the National Teachers and Administrators Code of Conduct States that teachers should not have romantic relations with a student in the school system, nor exploit students in exchange for grades, money, labor, or personal benefits. However, like the Education Reform Act, it fails to provide any enforcement mechanisms.

186. Additionally, the SCORE Index reveals that about two out of 10 Liberians surveyed found domestic violence against women and children contextually acceptable behavior, and one of 10 did so with respect to sexual violence, including rape—with the value being higher in rural

areas. Some 35 percent of women report intimate partner physical and/or sexual violence in the last 12 months (United Nations Women, 2016). The high level of violence against women is among the main factors hindering women's empowerment in Liberia, and consequently limiting HC accumulation.

187. These challenges come with opportunities. First, empowering women constitutes an opportunity to reduce violence, not least because females are so often the victims of it. Second, the role of empowering communities is critical. For example, while the education system was severely affected by the civil wars, local communities were often able to keep schools operating by relying on their own resources in the absence of central government support (Williams et al., 2011). Notably, recent literature shows that conflict termination has significant positive impacts on the accumulation of HC, especially through improvements in education outcomes (Namen et al., 2020). Third, there are some promising interventions to reduce interpersonal violence in the country. For instance, there is strong empirical evidence that the use of cognitive-behavioral therapy reduces violence among males in the country. In one of the most cited studies, researchers recruited criminally engaged men from Liberia and randomized one-half to eight weeks of cognitive-behavioral therapy designed to foster self-regulation, patience, and a noncriminal identity and lifestyle. They also randomized $200 grants. Cash alone and therapy alone initially reduced crime and violence, but effects dissipated over time. When cash followed therapy, crime and violence declined dramatically for at least a year. The intervention seemed to shape behavior and self-perceptions, including with respect to patience and identity. It also showed the power of multisectoral interventions (in this case, exemplified by the multiplier effect of social protection measures) (Blattman et al., 2017).

Other Sectors and Their Influence on Human Capital Outcomes in Liberia

188. While human development sectors (e.g., education, health, and social protection) play an important role in the achievement of human development outcomes, multiple other sectors contribute to the accumulation of HC, and a coordinated "whole-of-government" approach is necessary to ensure sustainable gains in HC formation. The next paragraphs elaborate on challenges to HC accumulation that are posed by climate change-related factors, as well as constraints observed in sectors or areas such as WASH, transport, energy, digital development, and macroeconomics.

Climate Change

189. Given its limited level of industrialization, Liberia is not a significant contributor to the emission of global greenhouse gases, but it is not immune to global climate challenges, particularly the risks of hydrometeorological hazards and natural disasters (World Bank, 2021e)—which are more disconcerting given the lack of economic diversification and the weak institutional structures to address climate/weather shocks—as well as future risks associated with having an ocean as a one of its borders. Heavy rains, storm surges, rising seas, and increased erosion put urban and rural infrastructure at risk, particularly along the heavily populated parts of the coast. This will have direct and indirect effects on HC accumulation, including though outbreaks of diseases and the disruption of education and economic productivity.

190. One of the most important impacts of climate change on HC occurs through the effects on agriculture. Some of the most important agricultural exports in Liberia, such as rice, rubber, cacao, and coffee, are highly sensitive to changing weather conditions (USAID, 2017). This could have important effects on many indicators, including stunting and malnutrition. Recent research has estimated that severe stunting could increase by 31-55 percent in several regions of Sub-Saharan Africa because of the effects of climate change (Lloyd et al., 2011).

191. Climate change is also expected to increase risks and severity of natural disasters in Liberia, through increased temperatures, prolonged heat waves, and rainfall patterns. Vulnerability is exacerbated by the country's high level of poverty and high dependence on sectors sensitive to climate change, such as agriculture, fisheries, mining, and forestry. Moreover, climate change can increase involuntary migration from coastal erosion, flooding, and drought, which can in turn foster conflict over land and resources, thus increasing the fragility the country experiences.

192. Liberia can expect an increase in annual temperatures between 0.9 and 2.6 C by the 2060s, with the rate of warming most rapid in the northern inland regions, with a substantial increase in the frequency of hot days and nights (USAID, 2017). Heat waves have clear effects on HC accumulation and utilization. First, extreme high air temperatures contribute directly to deaths from cardiovascular and respiratory disease (WHO, 2018). Heat waves can contribute to reductions of learning, with recent research showing that that extreme heat can reduce learning by up to 15 percent (Goodman et al., 2018). Heat waves affect HC utilization through reduced hours of labor. For example, around 157 million vulnerable people were exposed to

heat waves globally in 2017, and 153 billion hours of labor were lost last year because of heat exposure. Liberia is not exempted: recent studies project that work hours lost because of heat may be as high as 12 percent in the worst affected regions of South Asia and West Africa by 2050 (Sustainable Energy for All, 2018).

193. Floods, a recurrent challenge in Liberia, are expected to become worse with climate change, especially along the coast. Exceptionally high rainfall in 2007 led to floods, which had large implications on human health. Sea level rise is projected to increase along Liberia's coast and cause more frequent flooding in cities, especially Monrovia. It has been estimated that a 1-meter rise in sea level would put 230,000 people at risk immediately, not least from epidemics of malaria, cholera, and diarrheal diseases, and increases in the incidences of Lassa fever, schistosomiasis, lymphatic filariasis, yellow fever, hepatitis A, and intestinal worms. It is worth noting that malaria poses the most significant threat to public health, as it has the highest mortality rate.

194. Climate change will also affect HC through its effects on water resources. For instance, runoff in the St. Paul River Basin is projected to decline up to 25 percent by the 2020s because of precipitation and temperature changes, impacting potential hydropower production at the Mount Coffee plant and the water supply for Monrovia, the capital (USAID, 2017).

195. Importantly, the effects of climate change are not gender neutral, as they tend to affect women more than men, because women constitute a larger portion of the poor and because, especially in rural communities, they are dependent on local natural resources for their livelihood and tend to be responsible for securing water, food, and fuel for cooking and heating (UNDP, 2018). The differential effects of climate change on women tend to increase the negative impacts on HC.

Macroeconomic-Related Constraints

196. The macroeconomic environment also poses challenges to investments in HC in Liberia, not least because the Liberian economy has limited diversification, relying heavily on primary commodities. Frequent commodity shocks hinder growth and render the underlying foundation for investments in HC volatile. In the wake of slow growth and limited fiscal space crowded out by a relatively high wage bill, investments in HC are muted.

197. With the COVID-19 pandemic, Liberia's economy contracted for the second year in a row in 2020. Real GDP contracted by an estimated 3 percent. Extreme poverty surged after two consecutive years of contraction, undermining household welfare, and leaving two out of three households reporting food insecurity and income losses and three out of four households reporting job losses (World Bank, 2020d). Fiscal consolidation and monetary tightening further weakened domestic demand in 2020, but saw inflation reduced to 17.4 percent from 29.6 percent in 2019. Signs of recovery are in sight in 2021 following the lifting of lockdowns and the availability of vaccines, but uncertainty and multiple challenges remain.

198. In addition to short-term impacts, the pandemic will very likely generate long-term effects on the capacity of Liberia to finance HC-related programs. Globally, the pandemic has reversed the fall in global poverty for the first time in a generation. Moreover, it is exacerbating trends

seen over the past decade that threaten to erode growth prospects in developing economies, including slowing investment, productivity, employment, and poverty reduction. It is also raising debt levels and accelerating destruction of natural capital (World Bank, 2021f).

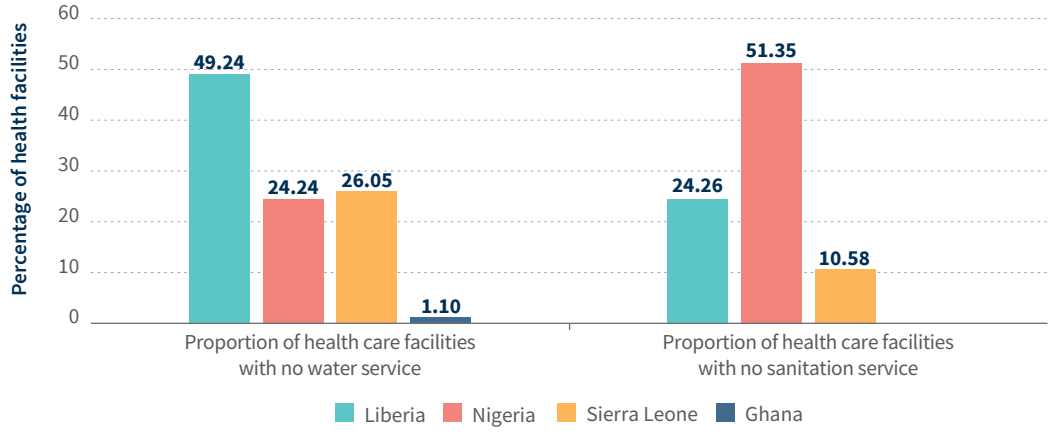
199. Among the multiple macroeconomic challenges that Liberia faces, perhaps the most constraining with respect to investing in HC development is the low level of domestic resource mobilization, which limits fiscal space. Despite recent improvements, domestic revenue mobilization levels in Liberia are very low. Data from 2020 shows a tax-to-GDP ratio of 12 percent, which is much lower than the averages for Sub-Saharan Africa and the Economic Community of West African States (ECOWAS). International trade taxes and income taxes remain the country's major domestic revenue sources, combining for 80 percent of the total tax revenue. Revenue from consumption taxes, including the general service tax and other excise taxes, is low, and the consumption tax base tends to be underutilized. There are significant opportunities that arise through strong revenue efforts, including the streamlining of tax and duty waivers and improved expenditure control characterized by allocative efficiency.

WASH

200. WASH interventions can be classified into hardware and software components. "Software" interventions aim to change behaviors, such as education programs designed to improve hygiene, whereas "hardware" interventions are related to physical infrastructure, such building an actual water treatment facility. Liberia's "hardware" of water, sanitation, and hygiene is weak, which contributes to exposure to fecal-oral pathways of disease transmission and consequently to poorer health outcomes. The effect of these infrastructure gaps is particularly notable with respect to health facilities themselves. According to UNICEF and WHO data, almost half of Liberia's health facilities do not have access to water services. This is twice the 'failure' rate of Nigeria and Sierra Leone, for example, and enormously worse than Ghana (see Figure 26). The lack of sanitation services is also prevalent in health facilities, one-quarter of which are without any sanitation infrastructure. This 'failure' rate is substantially worse (more than double) than that for neighboring Sierra Leone, a country that also experienced civil war at roughly the same time (1999-2002) as Liberia, although it is far better than that of Nigeria. Poor WASH infrastructure is also an issue in Liberia's education sector (see Figure 27), as demonstrated by the lack of drinking water and hygiene facilities in 50 percent and 15 percent of schools, respectively (UNICEF, 2018).

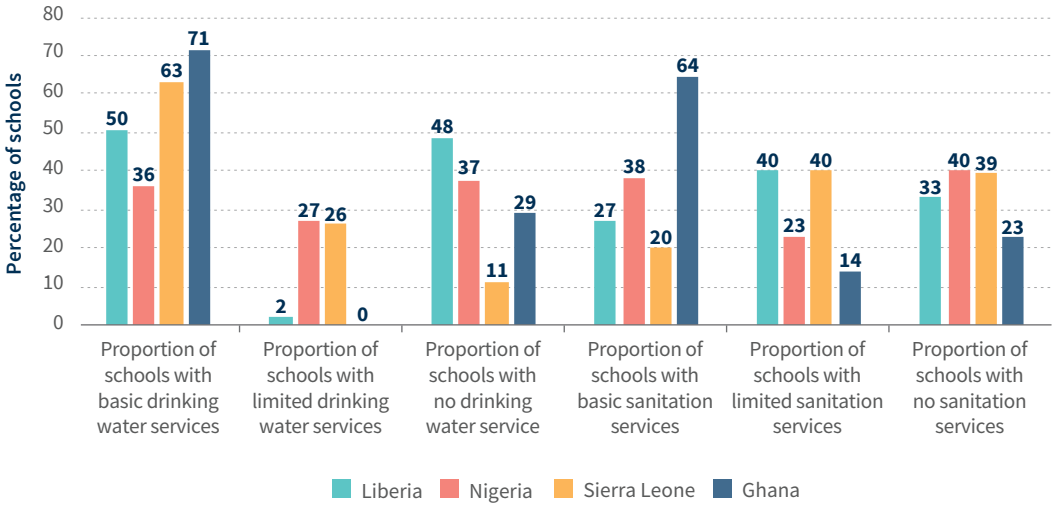
Half of Liberian schools lack access to drinking water. Moreover, one-quarter of health facilities lack sanitation infrastructure.

Figure 26. WASH Infrastructure in Health Facilities: Liberia and Select West African Countries (2016)



Source: UNICEF, 2019.

Figure 27. WASH Infrastructure in Schools: Liberia and Select West African Countries (2016)



Source: UNICEF, 2019.

201. The lack of gender-specific toilet facilities in schools reduces adolescent girls' attendance. In Liberia, only 37 percent of schools in 2016 had functional latrines incorporating menstrual hygiene components (e.g., disposal bins, water, soap in latrine stalls). Absence of WASH facilities may lead female students to travel home to use such facilities, resulting in lost educational time. A UNICEF study found that programs that provided toilet facilities for girls in Bangladesh produced an 11 percent increase in girls' attendance rates every year (Patchett, 2010). Finally, the lack of accessible toilet and hand-washing facilities in schools is a major factor for poor participation rates of children with disabilities. In addition, inaccessible community WASH facilities impact health outcomes, including through the development of "secondary (often not medical per se) disability" and risk of sexual violence for persons with disabilities.

The lack of gender-specific toilet facilities is a major issue in more than 60 percent of Liberian schools.

202. In addition to the WASH infrastructure challenge, the WASH "software" indicators, those related to the behavior of people, also show meager results. For instance, as of 2017, 40 percent of the populace practiced open defecation, the 12th-worst value in the world. This value is as high as 60 percent in rural areas, while it is 19 percent in urban areas, the 6th-worst value worldwide. Open defecation reproduces a vicious cycle of disease and poverty. In fact, open defecation tends to be associated with higher numbers of deaths of children aged under five as well as with higher levels of malnutrition, poverty, and, consequently, wealth disparities. Reducing open defecation has been associated with lower levels of diarrhea, intestinal worms, schistosomiasis, trachoma, and malnutrition. Beyond health outcomes, lower open defecation has also been associated with promoting dignity and boosting safety, particularly among women and girls, and promoting school attendance (WHO, 2019c).

Transport

203. The availability and quality of transport and transport-related services has clear effects on HC accumulation, both in direct and indirect ways. A common linkage relates to the lack of safe roads, which contributes to accidents and significantly reduces life expectancy. In Liberia, the mortality rate associated with road traffic accidents is 36 per 100,000 people, the highest such in the world.

204. Another important pathway through which road density and safety tend to contribute to HC outcomes is by providing access to health facilities and schools. With respect to the former, a recent study suggests that road infrastructure is critical to increasing health-care demand in rural Liberia (Iimi & Rao, 2018a). It is estimated that approximately 90 percent of the populace has access to a health facility within 10 kilometers, and approximately 40 percent have access within 2 kilometers. Access to more advanced services provided at hospitals and health centers is more limited; only 15 percent of the populace lives within 2 kilometers of a hospital. Approximately 40 percent of the populace lacks a hospital within 20 kilometers of their home, greatly limiting their access to medical attention. In a similar vein, the availability of doctors and of medical supplies are a challenge in rural Liberia (Iimi and Rao, 2018b).

205. It is also important to note the time taken by Liberians to reach their primary health-care providers. Rather than considering the distance to the primary health-care provider, the 2016 HIES uses the metric of time, because Liberia's poor road conditions and unreliable modes of transport make distance a misleading measure of mobility. In Liberia, 82 percent of people that visit a health-care provider reach it in less than 60 minutes (the urban/rural figures are approximately 94 percent and 70 percent, respectively, while the bottom/top income quintiles for more than 60 minutes are 29 percent and 10 percent, respectively). It is worth noting that recent transportation innovations have helped Liberia better address health challenges. For example, the use of motorcycles to deliver clinical samples from remote areas to diagnostic laboratories has improved the capacity of the country to rapidly respond to disease outbreaks. Before the launch of the program, known as "Riders for Health," only 25 percent of samples in Liberia reached a laboratory within 24 hours. In 2017, that number had increased to about 80 percent (CDC, 2020).

Low-cost innovations in service-delivery practices, such as the use of motorcycles to transport clinical samples in remote areas, expedite responses to disease outbreaks.

206. Access to education depends, in part, on the capacity of students (including those with physical disabilities) to reach school quickly and easily. When respondents in the 2016 HIES were asked about the length of their daily commute to school, about half stated between 10 and 29 minutes. Whether urban or rural, the additional costs of seeking accessible transport for children with disabilities may be unaffordable and contribute to non-attendance and drop-outs.

Energy

207. At only 25.9 percent, Liberia is among the countries with the lowest electricity access rates in the world. The rate is less than 8 percent for rural areas. Liberia's energy problems peaked in 2003, when the country's long civil conflict left its energy sector—including its power distribution system and the 60-megawatt Mt. Coffee hydropower plant—completely destroyed. The lack of electricity and continuity of basic services has profound implications for HC accumulation and utilization.

208. The clearest effects on HC accumulation are manifested in the education sector. Only about 33 percent of senior secondary and 20 percent of junior secondary schools have electricity, compared to 57 and 47 percent, respectively, for Africa as a whole (World Bank, forthcoming). Clearly, children without access to power (including at home) enjoy fewer productive hours per day, which significantly reduces their opportunities to learn, including through remote/virtual modalities, as experienced during the recent closure of schools caused by the COVID-19 pandemic.

209. Similarly, in the health sector, lack of electricity tends to be associated with poor service delivery at medical centers. For instance, virtually all diagnostic tests for active COVID-19 infection require electricity, and the distribution and storage of vaccines faces the lack of electricity as one of its main challenges (Fetter et al., 2020). A pertinent study of 33 hospitals in 10 countries found that the most common cause of medical equipment failure is the absence of a reliable power supply (Malkin, 2007). Health workers (among many others, of course) also prefer living in areas with good electricity supply, which increases their absenteeism in areas with low access to electricity, or directly discourages their deployment to these areas (Welland, 2017).

210. One of the limitations for a more detailed analysis of the electricity issue is the lack of data on health facilities and schools. Ironically, according to the 2011 school census report, the collection of data faced severe challenges, including issues during the data entry and cleaning, because of erratic electricity supply to the MoE in early 2011 (World Bank, 2016a). Thus, the lack of electricity not only affects HC outcomes, it also affects the capacity of government institutions to prepare and implement HC-related programs.

211. Finally, regarding HC utilization, the lack of electricity tends to limit productivity. According to the Enterprise Survey, a typical firm in Liberia suffers a monthly average of 4.5 power outages, a value that has been growing in the last decade (Enterprise Survey 2021). This also limits the availability of productive jobs.

Digital Development

212. The lack of connectivity hinders HC accumulation and utilization in many ways, especially in the global context of the growing number digital development initiatives. Weak connectivity levels impose serious challenges for service delivery, reduce opportunities to launch interventions that can maximize impact, and put many obstacles in the way of efficient management of inputs.

213. Access to the Internet in Liberia is still very limited, in spite of some recent growth. According to the Liberia Digital Economy Diagnostic (World Bank, 2020e), in 2019 only 11 percent of the populace had mobile access to the Internet. Despite the poor mobile network infrastructure (Liberia scores only 34 out of a maximum score of 100 on the Mobile Connectivity Index), most users in the country access the Internet and social media through mobile devices (GSMA, 2019). However, only about one-quarter of mobile connections are broadband (3G or 4G, the minimum requirement for accessing online content). Thus, the access of students and teachers to online teaching and learning resources is quite limited.

214. The lack of connectivity is also a major issue in schools: most schools in the country lack Internet access, and when they do have it, it tends to be sponsored by non-governmental organizations (NGOs), churches, or private companies, which renders sustainability challenging. For example, only two of 146 senior secondary schools (1.4 percent) surveyed as part of the Digital Economy Diagnostic had Internet access, and both of them were sponsored by non-government entities. Among five tertiary education institutions surveyed, only two had access, and only in their computer labs.

215. In a similar vein, computers and digital devices are very limited in public schools in Liberia. Generally, there is no district and school information and communications technology (ICT) budget, nor any government allocations specifically for the use of ICT in public schools. Investment in computer equipment for classrooms tends to be low or nonexistent, as more basic needs are prioritized. Some computer labs, if they exist, are used to teach computer science as a subject but without sufficient computers for demonstration and student practice. A recent survey of County Education Officers across the country's 15 counties, involving 146 public senior secondary schools and approximately 34,000 students, highlights the magnitude of the digital divide in Liberia:

- Four of 15 counties do not have a public school with a computer lab. Other counties have only one or two such schools. The most advanced county, Montserrado, has six.
- Just over 20 percent of such schools have computer labs. However, just 18 percent of these labs have functioning computers. Nine schools have computer labs without any computers at all.
- Based on an estimated total of 578 computers in these computer labs, the coverage ratio is about 58 students per computer.
- Half of the school principals have a functioning computer in their office. Less than 20 percent of teachers and 10 percent of students have access to computers or tablets at school.
- It is estimated that about 80 percent of teachers and less than 20 percent of students possess a smart phone or a tablet, but the cost for using these devices for teaching and learning is high for a country with such an average low-income level as Liberia.

216. For post-secondary education institutions, the availability of digital facilities is slightly better. The results for five surveyed institutions, including vocational and teacher training institutions, show that:

- All surveyed institutions have computer labs in operation and available for students to use. For example, of the roughly 19,000 students at the University of Liberia, about 11 percent have regular access to the computer lab.
- The 23 campus computer labs (with 440 computers) have varied standards for access, with some for general use while others are more specialized. The University of Liberia has one general and 10 specialized labs, while Starz College of Science and Technology has six general and three specialized labs.

217. The COVID-19 pandemic has exposed the difficulties that the lack of connectivity poses for effective delivery of education services. The possibilities of providing remote learning are seriously limited by the dearth of Internet access, so radio tends to be the preferred method for remote learning. In addition to the lack of clear requirement in curriculum and in learning outcome measurement, very few teachers have received proper training in ICT and its application in teaching and learning in both pre- and in-service training programs. Thus, teaching approaches do not incorporate the use of ICT and students' assessments, which are conducted through tests, are never computer-based or undertaken online. This even includes annual national and regional exams, such as the WASSCE and exams administered for students who want to access higher education. Furthermore, when the subject of how to use computers is taught in some schools, it is usually from a theoretical standpoint and as a separate subject, without clear connections with the rest of the curriculum. From six counties surveyed:

- About 10 percent of their public senior secondary schools offer some form of ICT and digital skills training (very basic in most cases).
- About 7 percent of their teachers have received computer training, but only half of these have applied what they learned from the training into their teaching practice.

218. Liberia's tertiary education institutions, including technical and vocational ones, are the main training places for digital skills at intermediate and advanced levels. Currently, among 33 public and private tertiary education institutions, four offer bachelor's degree programs in IT-related areas. There are no ICT-related training programs at the master's degree or above levels in Liberia. The leading university in the country—the University of Liberia—does not have a computer science program, although it has plans to launch one in the next academic year. Outside the IT field, across other disciplinary areas, it is uncommon to have digital skills training or digital technology introduction incorporated in curriculum or integrated in teaching and learning.

219. The two most active IT training institutions in Liberia are private—BlueCrest University College and Starz University. Both provide an array of training covering many IT-related topics and have established funding partnerships with globally known IT companies.

220. For the health sector, the lack of connectivity is manifested mainly in the difficulties in efficiently managing the system. For instance, a challenge resulting from the lack of digitization and connectivity is that MoH spending is hindered by delays in the release of funds by MFDP. Funds are released by MFDP in the form of vouchers, which are based on submitted invoices. However, if the integrated financial management system (IFMIS) is down, MoH officials have to submit invoices to MFDP manually to receive vouchers, a slow and bureaucratic process. Another issue related to IFMIS is the time-consuming and bureaucratic process of re-programming; when MFDP allocates funds in IFMIS, sometimes funds are not available for essential line items, which requires re-programming the funds. The inability to expand the use of mobile money also poses challenges for efficiency, transparency, and accountability of the health system.

221. The low level of connectivity is also one of the drivers of the low HC outcomes in social protection. In particular, the delivery mechanisms of cash transfers are limited by low connectivity

levels. Low connectivity and limited access to mobile money not only create challenges for ensuring that cash transfers reach the intended beneficiaries, but also hinder improvement in financial literacy.

222. Concerning HC utilization, poor connectivity poses challenges for job creation, productivity, and the fostering of skills to match growing demands in the labor market. As part of the Digital Economy Diagnostic, a brief survey with limited sample size was conducted with eight small and medium-size businesses across a range of industries, from hospitality (including food, hotel, and travel and tourism) to finance and technology. The main survey takeaways were that (a) all eight firms rank *basic* ICT/digital skills among the top three skills that their future workers must have, while six noted that more than half of their routine production tasks require such skills; and (b) three firms will be looking for *intermediate*-level ICT/digital skills, while one firm stated that it wants 15 percent of an estimated upcoming 20 new hires to have *advanced* ICT/digital skills.

223. Despite these challenges, there are some promising opportunities on the horizon. For example, MoE has recognized the importance of ICT application in education and has prioritized it in teaching and learning. In its reformed competency-based national curriculum framework unveiled in 2018, digital literacy was identified as the first of eight competencies and mandatory for all grades (Grades 1–12). The new curriculum framework includes specific learning outcomes required for each grade level and highlights basic digital skill areas, such as how to use electronic devices for research and how to use ICT to access, evaluate, organize, and communicate information. According to the plan, the new curriculum will be piloted in selected public and private schools in all of Liberia's 15 counties, with the support of the Improving Results in Secondary Education Project, approved in 2019 by the World Bank.

Conclusion

224. There is no simple explanation for the low HC outcomes that are observed in Liberia. Multiple factors that operate at various levels shape HC development and have impacts that can last for generations. This chapter identified some of the main bottlenecks that prevent HC accumulation and utilization in Liberia following the PDIA methodology, which was enriched by multiple consultations with stakeholders and a comprehensive review of the existing evidence.

225. This chapter focuses on challenges that are common for most HC outcomes and, as such, it should be complemented with more specific studies to understand the specific drivers for each outcome. Nevertheless, it shows that HC is shaped by constraints that cannot be addressed only from a sectoral perspective. Some structural factors such as the context of fragility, the presence of certain socio-cultural norms, and demographic changes interact with other constraints at the policy and institutional levels, such as low and inefficient spending and weak governance. Complex challenges require solutions supported by the available evidence and adequately adjusted to the specific context and the unique institutional setting that prevails in Liberia. The next chapter elaborates on the enabling environment through a political economy lens.

Chapter IV.

The Enabling Environment for Human Capital Accumulation

226. This chapter describes the institutional setting of HC development in Liberia, including formal and informal rules, as well as the main stakeholders and their incentives. It elaborates on the outcomes of a political economy and stakeholder analysis of the HC landscape in Liberia. The key premise for such analysis is that, in some cases, the challenge to HC formation is not simply the existence of structural limitations, but rather the combination of these barriers with the incentives and institutional constraints that affect the capacity of government entities and other stakeholders to pursue progress.

227. The approach used in this chapter is an adaptation of two political economy analysis methodologies, one developed by the World Bank (Fritz and Levy, 2014) and the other by the Overseas Development Agency (Harris, 2013). Both share the conclusion that on many occasions, even when technical solutions are available, political incentives and the interaction between multiple agencies can hinder progress or render cooperation difficult.

228. This chapter (a) describes the main stakeholders with a role in HC development in Liberia, (b) introduces the principal formal laws, frameworks, and regulations that affect incentives for investments in HC, (c) elaborates on some of the consequential informal rules that affect HC decisions, and (d) presents the outcomes of a rapid stakeholder analysis and mapping. The objective of this chapter is to provide an overview of the HC institutional landscape, or enabling environment, in Liberia. The analysis presented in this chapter should be complemented with more specific and granular studies to be conducted separately, which would target certain policy domains.

Main Stakeholders

229. The HC landscape in Liberia is characterized by the existence and operation of various government entities and other stakeholders. Table 9 groups some of the main actors across four categories: public sector, private sector, civil society organizations (CSOs), and development organizations. Given that the focus of this exercise is to identify opportunities to increase collective action and create alliances for HC development, the analysis does not include actors that oppose such actions and alliances.

Table 9. Liberia Human Capital Stakeholders Mapping

Type of Stakeholder	Name of Stakeholder
Public Sector	Ministry of Health
	Ministry of Finance and Development Planning
	The Ministry of Gender, Children and Social Protection
	Ministry of Internal Affairs
	Ministry of Justice
	Ministry of Youth and Sports
	National Commission on Disabilities (NCD)
	Ministry of Labor (MoL)
	Ministry of Education
	The Independent National Commission on Human Rights
	National Social Security and Welfare Corporation (NASSCORP)
	Liberia National Water and Sewer Cooperation
	National Water, Sanitation and Hygiene Commission
	Governance Commission
Private Sector	Liberian Educational Advancement Program
	Catholic school system
	Methodist school system
Civil Society	The National Union of the Disabled
	Liberian National Association of the Deaf
	Cultivators of Users' Hope
	Italian Raoul Follereau Association
	Humanity and Inclusion
	Sightsavers
	Christian Association of the Blind
	National Teachers Association of Liberia
	Civil Society Organization (CSO) Forum
Development Organizations	The World Bank Group
	African Development Bank
	Catholic Relief Services
	European Union
	Global Alliance for Vaccines and Immunization
	Global Fund to Fight HIV/AIDS, TB, and Malaria
	Japan International Cooperation Agency
	United States Agency for International Development (USAID)
	United Nations Children's Emergency Fund (UNICEF)
	Global Partnership for Education
	Save the Children
	United Nations Development Program
	United Nations Population Fund (UNFPA)
	World Health Organization (WHO)
	The Carter Center

230. Given their central role in the development of programs to foster HC, a description of some of the main government organizations is provided below. The landscape is very diverse, but the focus of this analysis is on organizations with direct responsibility in the design, implementation, or evaluation of HC-related programs in three key sectors: health, education, and social protection. In this exercise, the agencies that belong to the Legislative and Judiciary Branches have not been mapped, even though they also play a critical role in regulating or promoting HC in Liberia. These agencies should be taken into consideration in more specific analyses to be conducted separately.

Health

231. The public health system in Liberia comprises 12 spending entities that all receive budget allocations directly from the MFDP. In addition to eight teaching and research agencies, the MoH, JFK Medical Center, Phebe Hospital, and Jackson F Doe Hospital are categorized as separate spending entities within the wide health budget (see Table 10). The MFDP releases funds to MoH and the three referral hospitals separately for staff compensation, purchase of goods and services, and capital expenditures. MoH subsequently manages county grants to clinics, CHTs, health centers, and county hospitals for non-salary and non-essential medical and health supplies expenditures. Staff compensation and goods and services are centrally managed and procured by MoH.

Table 10. Health Sector Ministry and Agencies, with Main Functions

Agency	Main Function
Ministry of Health	Stewardship
JFK Medical Center	Tertiary care
Liberia Medicines and Health Products Regulatory Agency	Regulatory
Phebe Hospital	Secondary care
Jackson F Doe Hospital	Secondary care
National AIDS Commission	Other
Liberia Institute of Biomedical Research	Teaching and research
National Public Health Institute of Liberia	Teaching and research
Liberia Board for Nursing and Midwifery	Regulatory
Liberia Medical and Dental Council	Regulatory
Liberia Pharmacy Board	Regulatory
Liberia College of Physicians and Surgeons	Teaching and research

Source: Liberia Expenditure Analysis, 2020.

Education

232. MoE is responsible for policy-making and managing the entirety of the education system. Its main roles include the development and revisions of the national curricula, and setting standards and policy for all types of schools and educational programs. It is the largest government agency in Liberia, with management offices and personnel at the central, county, and district levels. More than 23,000 teachers and nonteaching staff work in public schools in Liberia (more than 55,000 teachers comprise the workforce if other types of school ownership are taken into account) (World Bank, 2016a). In addition to MoE, many other bodies support education in Liberia, as summarized in Table 11.

Table 11. Education Agencies and Functions

Agency	Main Function
Rural Teacher Training Institutes	Pre-service and in-service teacher training
Colleges and Universities	Tertiary education and technical and vocational education and training (TVET)
Civil Service Authority	Payroll for teachers
Ministry of Youth and Sport	Supports TVET
National Commission on Higher Education	Higher education

Social Protection

233. MGCSP has the mandate to coordinate social protection activities in Liberia. The ministry is responsible for policy formulation and coordination within its remit, as well as for the monitoring and evaluation of social protection programs within the context of the national development agenda. To improve efficiency in the sector, MGCSP is developing the Liberia Household Social Registry, which will host socio-economic data for households in the country and serve as key resource for targeting social protection interventions. MGCSP is supported in making policy and providing guidance on social protection interventions through the National Social Protection Steering Committee, which consists of ministers from MoH, MoE, MFDP, Internal Affairs, Agriculture, Youth and Sports, and the Directors of NASSCORP and of the Liberian Institute of Statistics and Geo-Information, as well as donor partners and CSOs, and is responsible for coordinating them within this sector. In theory, it enhances coordination through regular meetings and periodic progress reviews of sectoral programs, so as to strengthen their efficiency. However, there have been no regular National Social Protection Steering Committee meetings since 2018. There is also a range of national commissions whose mandates cover key social welfare and protection areas, including reintegration, refugees, and disabilities, as well as NASSCORP, which is responsible for the administration of social security and social insurance schemes for formal sector workers (Borgarello et al., 2011).

234. In addition, MGCSP is the lead agency on child protection. It acts as the lead advisory agency on policy formulation, coordination, and monitoring of child protection through its Children Protection and Development Division. The ministry monitors government efforts on compliance with the Universal Declaration of Human Rights, the UN Convention on the Elimination of All Forms of Discrimination against Women, the UN Convention on the Rights of the Child, and the African Union protocols on women and children.

Interactions among Government Bodies

235. In addition to these clear sectoral responsibilities, there are many domains for which multiple government bodies interact with different levels of coordination and collaboration. The most prominent example is the relationship between each sectoral ministry and the MFDP, which is in charge of coordinating the preparation of the national budget. The interaction among multiple agencies is fundamental to achieving results in different fields. For instance, there are at least six government organizations with important roles in regulating and implementing policies on disability and inclusion:

- **The Ministry of Gender, Children and Social Protection:** this ministry is responsible for promoting and monitoring disability rights. It receives quarterly budgetary allocations from GoL to support vulnerable children, including children with disabilities, through work in the Department of Children and Social Protection and the National Commission on Disabilities.

- **National Commission on Disabilities (NCD):** this commission was established under the Ministry of Foreign Affairs as a statutory body responsible for disability-related activities in the country in 2005. It is designated as the secretariat for interactions with the UN Committee on the Rights of Persons with Disabilities (CRPD) and is responsible for leading the treaty reporting implementation processes and ensuring the general welfare and education of persons with disabilities. NCD has ensured the partial implementation of disability policies and provided development funds to schools and rehabilitation centers.

- **MoL:** according to the 2009 Employment Policy, persons with disabilities are supposed to be provided with opportunities for meaningful employment. In accordance with this policy, MoL reviews labor and employment laws and regulations to help ensure appropriate compliance and preclude discrimination against persons with disabilities.

- **MoE:** the 2018 Inclusive Education Policy specifically includes provisions for persons with disabilities by ensuring syllabi and instructional materials take into account children and youth with disabilities. The policy provides guidance to enable school-based counsellors and school health advisers in special education to be trained properly to offer socio-emotional support (MoE, 2018).

- **MoH:** this Ministry, with the support of WHO, has trained health-care workers in the WHO Mental Health Gap Action Program, which aims to expand access to mental health services to include the management and treatment of mental disorders, such as psychosis, depression, epilepsy, and substance-abuse disorders.

- **The Independent National Commission on Human Rights:** this commission was established by a 2005 Act of the National Legislature as the National Human Rights Institution, responsible for the promotion and protection of human rights in Liberia, including persons with disabilities. Its active role in safeguarding the rights of persons with disabilities includes preparation of the Human Rights Action Plan 2013-18, which incorporated recommendations to develop a policy geared toward enhancing job opportunities for persons with disabilities and for other vulnerable groups (Deepak & Harris, 2018).

236. This well-populated environment underscores that the design and implementation of policies for HC development require solid collaboration among government agencies, which is not always facilitated by the existing incentives and institutional arrangements.

Main Formal Rules

237. The rules that shape stakeholders' incentives to invest in HC are both formal and informal. Both provide differential conditions for multiple actors to achieve their goals, incentivizing certain behaviors to the detriment of others. There is a wide set of rules and policies at different levels that regulate HC development and stakeholders' capacity to operate in this area (see Table 12).

Table 12. Summary of Main Laws and Regulations that Affect Human Capital Development in Liberia

Law/Regulation	Summarized Description
Education Sector	
Education Reform Act 2011	This act establishes free compulsory basic education. It also aims to assist the government in decentralizing the education sector, which is intended to improve the provision of education. The act also provides guidelines for various other components of education, such as curriculum, language of instruction, training of teachers, etc.
Liberian Education Administrative Regulations	This is a comprehensive administrative manual that specifies the current regulations for educational activities in the 15 counties and the Monrovia Consolidated School System.
Liberia National Gender Policy	Overseen by the Ministry of Gender, Children and Social Protection, this provides a strong framework for addressing gender inequality.
National Policy on Girls' Education	The policy articulates an agenda to mitigate the impact of economic and socio-cultural barriers to girls' education. The policy builds on the prescriptions of the Education Sector Plan (2010-2020) and the Education Reform Act 2011. It defines roles for the ministry and for county and district school boards, and schools and parent-teachers association in implementing policy measures. In some parts of the country, these institutions are weak or inactive. N.B. A new National Policy on Girls' Education is under development, with a projected (but now delayed) launch in early 2021.
Inclusive Education Policy	This policy defines the strategic path of the government for the education of all children with special educational needs. It will enhance the educational management and delivery services needed to respond to the diverse educational needs of all learners.
National Policy for TVET	This policy provides the roadmap for a coordinated and quality-assured TVET system in Liberia. It defines the policies and strategies required to standardize and harmonize the formal, informal, and nonformal development sub-sectors into a holistic and flexible national TVET system.

Health Sector	
National Health and Social Welfare Policy and Plan 2011-2021	To achieve Liberia's vision of becoming a middle-income country, the goal of this policy is to improve the health and social welfare status of the populace on an equitable basis. Sustained leadership, stakeholder commitment, resources, and effort are needed to achieve this. The underlying principles of this policy are that (a) health is a state of complete physical, mental, and social well-being, (b) access to quality health and social welfare services is a predicate for individual and societal development, and (c) health is a universal human right, embracing equity, quality, efficiency, sustainability, and accountability.
Public Health Law	The Public Health Law of Liberia was adopted on July 16, 1976. It is being revised to more effectively govern the decentralized health sector and accommodate the massive changes that have taken place since its enactment. MoH manages the revision by collecting relevant information, clarifying the legal implications of the measures it intends to introduce, and promoting an open debate among stakeholders about the future legislation needed to govern the health and social welfare sectors. To accomplish these tasks, the ministry needs to strengthen its legal and legislative expertise. The revised version of the Public Health Law will address new and emerging public health challenges, such as emergency treatment, discrimination, mental health, nutrition, regulation of marketing of products for infants and young children, zoonotic diseases, non-communicable diseases, antimicrobial resistance, clinical trials, and complementary and alternative medicines.
Human Resources Policy and Plan 2011-2021	The overarching goal of this policy and plan is to efficiently staff and effectively manage the network of facilities with the right mix of qualified workers in order to provide services to the needs of the populace in accordance with the highest professional and ethical standards. In accordance with the National Health and Social Welfare Policy and Plan (NHSWPP), the principles guiding this Human Resources Policy and Plan are equity, efficiency, quality, sustainability, decentralization, and partnership.
Financing Policy Plan MoH 2011-2021	The National Health and Social Welfare Financing Policy and Plan is intended to provide the detailed guidance necessary to finance implementation of the NHSWPP, 2011–2021 at an affordable cost. It has been developed to enable improvements to the health and social welfare status of the citizenry on an equitable basis. It focuses attention upon nationally established priorities on which all concerned partners are asked to concentrate their efforts in order to develop the efficient, accessible, and responsive system necessary to improve the health and social welfare of the populace. This policy applies to all institutions and organizations involved in financing health and social welfare, including the Ministry of Health, other government ministries, departments, and agencies, donors, UN agencies, and CSOs. It also applies to all workers within the sector, including those in public, private-for-profit, and private not-for-profit training institutions and facilities, among other stakeholders.
MoH Decentralization Policy (2012)	This policy elaborates on the decentralization cross-cutting sub-sector policy and strategy to ensure that the decentralization process is envisioned and implemented in ways that assist the Ministry of Health and Social Welfare in achieving its overall mandate and sector-specific functions and objectives.
National Monitoring and Evaluation (M&E) Policy and Strategic Plan (2012-2021)	This M&E policy is in alignment with and designed for the monitoring and evaluation of the National Health and Social Welfare Policy and Plan 2011-2021. The policy goal of the M&E system is to provide the platform for the development and implementation of a single functional national monitoring and evaluation system that will provide information for management decision-making in line with the National Health and Social Welfare Policy and Plan. The Monitoring and Evaluation Policy and Strategy for the health and welfare sectors seeks to achieve the following objectives: (a) provide the institutional framework for the management of M&E activities across the health and social welfare sectors; (b) establish uniform and coherent processes and procedures through which health and social welfare information can be collected, processed, and used for the management of these services; and (c) serve as a reference document for the development and implementation and assessment of a single M&E strategy and plan for the health and social welfare sectors.
Investment Plan for Building a Resilient Health System (2015-2021)	This Investment Plan aims to improve the health status of citizens through building a resilient health system that contributes to the achievement of equitable health outcomes described in the National Health Policy and Plan. Its specific objectives are to ensure for Liberia: (a) universal access to safe and quality services through improved capacity of the health network for provision of safe, quality Essential Packages of Health Services; (b) a robust Health Emergency Risk Management System through building public health capacity for prevention, preparedness, and alert and response for disease outbreaks and other health threats; (c) an enabling environment that restores trust in the health authorities' ability to provide services through community engagement in service delivery and utilization and improved leadership, governance, and accountability at all levels.

Social Protection	
The 2014 Act establishing the MGCSP	The Act amends chapter 38 of the 2001 Act creating the Ministry of Gender and Development in Liberia. The amendment expands the mandate of the ministry to promote the development, empowerment, and protection of women, girls, and children, as well as the welfare and integration of persons with disabilities, the vulnerable, extremely poor, excluded, and disadvantaged. Specifically, the ministry is charged with the responsibility to initiate, develop, and implement and/or coordinate policies and programs aimed at women, girls, and children, as well as those physically challenged, marginalized, disadvantaged, or excluded, to ensure that their rights are protected and that they are integrated and contribute to, and benefit from, the peace, stability, and socio-economic advancement of the country.
Decent Work Act, 2015	The Decent Work Act (DWA) is the most recent reform of the Labor Law and Labor Practices Law, covering nearly all forms of formal and informal work performed in Liberia. The Act seeks to ensure the respect, protection, and fulfillment of fundamental workplace rights in Liberia. Moreover, the DWA gives effect to obligations incurred by Liberia as a member state of the International Labor Organization and through other international commitments. Most of Liberia's labor-related provisions are guided by the International Labor Organization's concept of decent work and minimum conditions of work. The DWA also prescribes reporting mechanisms and penalties for workplace-related violations.
The Liberian Constitution	The Constitution specifically provides for the right of all Liberian citizens to work, to have a safe work environment, to have an equal opportunity to work, and to receive equal pay for equal work. It also prohibits discrimination in opportunities for work and calls for just and humane conditions in the workplace.
Children's Law, 2011	The objective of this Law is to facilitate the respect, protection, promotion, and provision of the realization of child rights in order to make maximum contribution to the survival, development, participation, and protection of every child in Liberia.
National Social Protection Policy and Strategy, 2013	The National Social Protection Strategy and Policy contains the background, justification, vision, overall policy objectives, and strategies for the social protection system in Liberia. It outlines the priority actions for the GoL to establish a coherent social protection system and expand coverage of integrated protections programs. It also provides a national framework to achieve the overall goal of tackling poverty, vulnerability to extreme poverty, and inequality in Liberia.
National Youth Policy 2019-2023	The overall goal of the National Youth Policy is to promote youth participation in the national decision-making process. It is also to provide an appropriate framework that will promote fundamental human rights and protect the health and the social, economic, and political well-being of all young men and women in order to enhance their participation in the overall development process and improve their quality of life.
Disability and Inclusion Area	
National Commission on Disabilities Act of 2005	The Act was passed to establish a National Commission on Disabilities (NCD) whose duties include ensuring that the rights and well-being of persons with disabilities are respected. Section 5 of the Act states that for every hundred employees without a disability, four percent must be qualified persons with disabilities who are gainfully employed, or funds must be provided for their employment elsewhere.
National Action Plan on Disabilities	The first (2018-22) National Action Plan (NAP) for the implementation of the UN CRPD was finalized in 2018 (Deepak & Harris, 2018). NAP is designed to provide a strategic framework to advance the rights of persons with disabilities and reflect the obligations under the UN CRPD. NAP proposes priority action in six areas: public accessibility, inclusive education, employment and livelihood, health-care, independent living and self-determination, and access to justice and social protection. The NAP abolishes all laws discriminating against persons with disabilities. It also encourages sign language to become a required course in all Liberian schools from elementary to college levels. The NAP also suggests that social security and welfare be provided through financial assistance to persons with disabilities.
The National Water Supply and Sanitation Commission Act	The Act, when made operational by the Government of Liberia, will serve as a regulatory agency for the water supply and sanitation sector, responsible for regulating tariffs, licenses, and service standards in Liberia. Improving water and sanitation services for all citizens is critical for rapid economic recovery, reconstruction, and development of Liberia. Today, there are no licenses for water and sanitation supply and no coordinated service standards for monitoring and regulating service delivery. The result is poor services and unpaid bills.
Liberia Inclusive Education Policy	This policy outlines the commitment to inclusive education made by the Ministry of Education in Liberia. The overarching goal of this Inclusive Education Policy is to expand and enable the education management and delivery services to respond to the diverse needs of learners in Liberia.

238. In addition to the aforementioned key laws and regulations, Liberia has developed many policy documents in matters pertaining to education, health, and social protection. These documents include Liberia's Poverty Reduction Strategy, which articulated the Government's overall vision and main strategies for moving toward rapid, inclusive, and sustainable growth and development during the period 2008-2011. In 2012, the Government of Liberia published its national strategic vision, *Agenda for Transformation, Liberia Rising 2030* (AfT) (Republic of Liberia, 2012). This document is a five-year development strategy to guide Liberia's long-term vision of socio-economic development. AfT affirmed the government's commitment to the achievement of development goals that will promote a more secure, just, and prosperous society (World Bank, 2016a).

239. More recently, the Government of Liberia prepared the PAPD, which was the second in the series of five-year National Development Plans anticipated under the Liberia Vision 2030 framework. It was informed by lessons learned from the implementation of the Interim Poverty Reduction Strategy 2007 and the Poverty Reduction Strategy (2008-2011). The PAPD outlines key national targets and indicators that are relevant to the analysis presented in this report, including the goal of ensuring that the United Nation's Human Development Index for Liberia rises from 0.427 to 0.523 by 2023, to reach the average for Sub-Saharan Africa. The PAPD aims to establish an accountable and effective public sector, combat corruption, promote an honest and transparent private sector, improve human development outcomes, close critical infrastructure gaps, protect the environment, and deliver rapid job creation.

Informal Rules

240. Informal rules are also relevant in determining rates of investment in HC and access to public services. There are many practices that are widely observed, often despite their nature, as ways to distribute public resources, including basic services.

241. First, the delivery of basic services sometimes is provided by entities that are not part of the formal system and, as such, are not regulated. For instance, traditional healers as primary or secondary health-care providers are common. While some of their practices and methods may be considered inappropriate by formal health practitioners, rural dwellers in particular (though not exclusively) consider this practice an appropriate means of addressing their need for care, especially with respect to commonly treatable illnesses, such as fever, measles, jaundice, pneumonia, and broken bones.

242. According to a study, traditional Liberian healers form a major part of the country's health-care system and will remain a vital part into the foreseeable future (Kruk et al., 2011). This study explored individual, village, and health system factors related to the utilization of health clinics versus informal traditional providers in Liberia. The study concluded that rural Liberians (especially) use both formal and informal health-care extensively, and as complements rather than substitutes (Kruk et al., 2011).

243. The Sande school is another instance of informal service provider. This traditional organization initiates girls into the female-only secret society—one which tends to inhibit school attendance. In response, Ministry of Internal Affairs policy stipulates that Sande schools

should not operate during the school term, but this edict is often ignored. Once initiated, girls are frequently considered ready for marriage, which often results in failure to complete schooling and brings additional domestic responsibilities to bear that limit them, to the detriment of potential HC formation (World Bank, 2016a).

244. Second, as previously noted, the Global Corruption Barometer documents that, in Liberia, 53 percent of public service users had paid a bribe during the year before the survey (a percentage that is more than twice the average for Sub-Saharan Africa), and 47 percent of people thought that corruption increased in the previous year. The high corruption levels confront even street-level bureaucrats that have the power to control access to services at the local level. For example, according to the Afrobarometer survey, only 21 percent of respondents in Liberia reported never paying a bribe for school services, only 31 percent reported never paying a bribe for treatment at a public clinic or hospital, and only 8 percent reported never paying a bribe for water or sanitation services. In the first two cases, only one Sub-Saharan African counterpart reported worse scores (Malawi and Sierra Leone, respectively), and in the last, only two countries reported worse scores.

245. Finally, patronage and clientelism—that is, the process by which delivery of public services to citizens is mediated by political brokers, who distribute access discretionarily in exchange for political support—are prevalent in Liberia; indeed, in sub-Saharan Africa, only one country (Sierra Leone) reports a higher rate of popular acceptance for the practices (Isaksson & Bigsten, 2017). The high levels of political clientelism/patronage imply that for many people

this is perceived as the only way to access certain public services and that the practices are, even if with a sense of disempowerment, broadly observed. In fact, some studies show that although Liberian democracy is relatively new, sophisticated patronage pyramidal networks of brokers have emerged and secured themselves (Bowles et al., 2020). Of course, this prevalence has substantial adverse implications, including the low levels of predictability in access to public services, large inequities associated with the discretionary distribution of resources, and low levels of trust in government, all of which foster a loss of confidence in governance and rational but perverse incentives that further undermine governance and social stability.

246. Corruption and clientelism are two of the intricate ways in which the delivery of public services that can increase HC are not always entirely governed by formal rules. These informal rules or practices exemplify how the interactions between the State and citizens take shape in Liberia other than through formal regulations. Thus, the actors' incentives are affected by a combination of de facto and de jure norms and regulations.

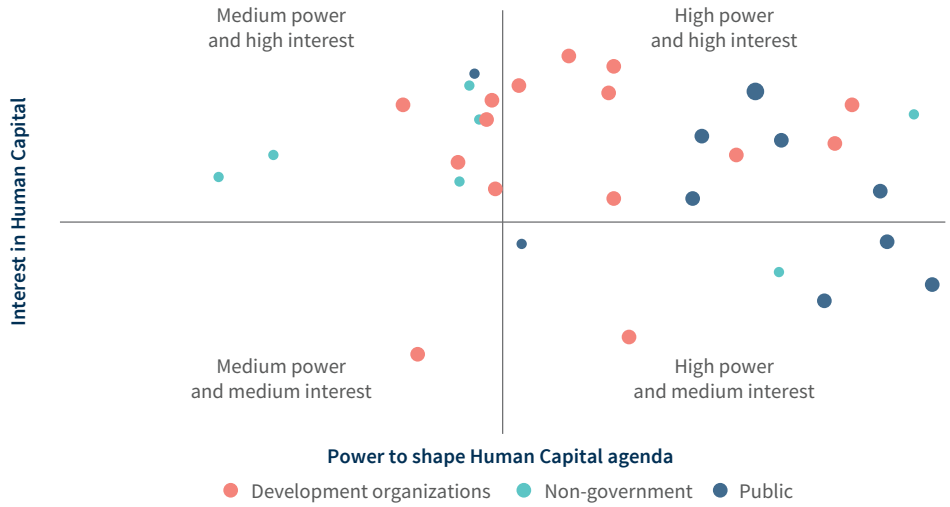
Stakeholder Analysis and Mapping

247. As previously noted, multiple actors play important roles in HC development in Liberia, and their actions are influenced by structural constraints and formal and informal institutional rules—both of which establish the universe of the feasible. But not all the actors have the same resources and characteristics, and neither is there is an even level of interest in developing HC-related programs (or the power to do so) in the country. Capacity to influence policies varies depending on the organizational, financial, and political resources of different actors. Similarly, their willingness to push the HC agenda depends on their interest in this area and related programs vis-à-vis other areas that are within their remit or that foster their influence.

248. To provide an approximation of this power/influence nexus, this section presents a stakeholder mapping along two dimensions: power to influence the HC agenda and interest in doing so. The main government agencies, non-governmental actors (including private sector and civil society), and development organizations were divided into three groups reflecting (a) high power, with resources in at least two of three dimensions (financial, organizational, or political resources), (b) medium power, when they have comparatively large resources in at least one of the three dimensions but low in other(s), and (c) low, when they have comparatively low resources in the three dimensions.

249. Similarly, these stakeholders were mapped according to their interest in the HC agenda (see Figure 28). Those organizations and agencies almost entirely dedicated to HC or one key HC sector were defined as having a high interest. Those organizations with diverse interests that include HC were defined as having a medium interest. The analysis does not include organizations with low interest or that oppose HC investments. As previously noted, this does not imply that veto actors do not exist. For example, many organizations would oppose a transfer of resources to HC sectors or the increase of certain taxes to strengthen HC. Typically, this is intensified by the fact that opposition tends to be concentrated, while the benefits tend to be diffused across the populace. Nevertheless, the focus here is on finding opportunities to enhance alliance opportunities to move the HC agenda forward.

Figure 28. Stakeholder Analysis



Note: the size of the circles represents the relative size of the organizations.
Source: Authors' elaboration.

250. At least five takeaways can be extracted from this simple analysis. First, government organizations—although heterogeneous—tend to have relatively high levels of power, largely determined by their political capital, but they vary in their interest in the HC agenda. Internal advocacy from organizations with high interest could help to have other voices heard—especially of those with power but medium interest—which could be an optimal strategy for government stakeholders interested in promoting HC accumulation and utilization. Relatedly, government efforts seem to be very fragmented, so that creating organizational structures to incentivize a more unified approach can be useful.

> Liberian government organizations have high power to influence the HC agenda, but their interest in HC is uneven.

251. Second, development organizations tend to have intermediate levels of power—largely driven by financial and organizational resources—and high levels of interest in the HC agenda. To move the HC agenda forward, the use of their resources to advocate for reforms with government agencies, and to finance initiatives, might be their best strategy. Development organizations usually operate with low levels of collaboration among themselves. Thus, it could also be useful to create arenas for more collaboration and address collective-action problems.

252. Third, non-government organizations tend to have lower power—in part because of their smaller size—but varied (often intense) levels of commitment to the HC agenda. Those stakeholders with high levels of commitment can work together with development organizations and government entities to maximize efficiency, impact, and public support. They can also

focus on their comparative advantages, such as the knowledge of local realities and, for those in the private sector, their capacity to create market opportunities.

253. Fourth, all stakeholders must be aware of their own and others' time horizons. The chart provides an illustration on where each stakeholder currently stands in terms of power and interest, but actually their positions are dynamic and can change quickly (for example, the World Bank's annual thematic World Development Report focuses the attention of its professional staff, and has an impact on its programmatic interventions, and to some extent on its provision of resources). Thus, political and institutional cycles and crises can lead to an increase in interest in delivering specific public services. There are also complex relationships among stakeholders that are not included in this analysis, but that imply that movements from certain organizations in one of the dimensions can encourage others to move as well. When designing a HC development strategy, these temporal and dynamic considerations are crucial to creating coalitions for change.

254. Finally, the dynamic nature of this mapping implies that a window of opportunity for HC reforms can open up unexpectedly. Under those circumstance, policy entrepreneurs and organizations must be ready to seize opportunity. In other words, regardless of the specific institutional constraints in a particular moment, having the technical solutions available when an opportunity arises maximizes the probability of successful reforms. The next chapter provides recommendations for institutional actors designing and implementing HC-related programs in Liberia.

Chapter V.

Opportunities

255. This chapter presents a range of recommendations to develop HC that could be implemented by the GoL notwithstanding the institutional/structural and political economy constraints identified in previous chapters. It does so by building on the incentives of multiple HC stakeholders. The recommendations are presented as opportunities for developing HC in Liberia in light of the previously discussed outcomes and their causes. The recommendations are framed from an inclusive and equity perspective, focusing on the most vulnerable. Policies that can promote Pareto reform—i.e., those reforms that can improve certain groups' wellbeing without jeopardizing others—could be prioritized by the GoL.

256. The recommendations were selected based on the analysis of the most important HC outcomes, the related bottlenecks, and the enabling environment previously described. They are all key elements of the ToC for HC development presented in Chapter III. While this chapter does not provide a detailed description of programs that should be implemented by the GoL, it is meant to guide policymakers in debates about HC development with a clear understanding of what the main priorities should be. The proposed recommendations should be later distilled into more specific programs and, as discussed below, reflected in a national strategy for HC development.

257. This chapter emphasizes the following recommendations for HC accumulation in Liberia: (a) adopting a whole-of-government approach; (b) advancing a green development agenda that can help people adapt to the outcomes of climate change; (c) empowering women; (d) addressing the sources of fragility; (e) tackling financial constraints; (f) expanding the use of technologies; and (g) tackling demand-side constraints. Finally, this chapter also proposes some key steps toward developing a national strategy for HC development, including targets for several indicators, based on the Africa Human Capital Plan.

A Whole-of-Government Approach

258. There are clear disconnects among government agencies responsible for HC development in Liberia, as noted in Chapter III. Government agencies often make choices and act in isolation. As a result, they offer programs and services that do not fully address the needs of beneficiaries. Liberian government organizations should collaborate and coordinate initiatives among themselves and with development partners to achieve better and more efficient results for HC, bearing in mind that increased investments beyond the traditional education, health, and social protection sectors can substantially complement/advance the HC agenda.

259. To ensure that greater coordination can be sustained across the medium term, the approach should be institutionalized, either in the form of a steering committee or a Cabinet-level task force, as observed in other Sub-Saharan African countries.

260. This body must be chaired by an organization or government representative possessing at least two characteristics. First, s/he must have the political legitimacy to be considered a valid voice. Second, s/he must be in a position to articulate initiatives across sectors. Following the experience of other countries, the Ministry of Finance and Development Planning could be in a good position to exercise this function. The mechanisms for the replacement or rotation of the chairperson must be clearly specified.

261. This body must count on the representation of multiple sectors, including most obviously from the ministries of Health, Youth and Sports, Education, Gender, Children and Social Protection, and Finance and Development Planning. The participation of representatives of from other influential organizations, such as the ministries of Transport and Agriculture, would also be critical to ensure a genuinely multisectoral perspective and underscore the whole-of-government approach.

262. Additionally, this body should include representatives from multiple levels of government and different regions. Non-permanent members could include representatives from development organizations, civil society, and community organizations.

263. This body would constitute the institutional scaffolding to foster synergies and help identify and promote policies and programs to build and maximize the utilization of HC. It would also expand the underdeveloped analytic and data/statistical base on HC development, so as to achieve higher returns to investments in this area.

264. Importantly, this body would help sustain efforts and focus across political cycles. To promote this, the body could comprise a mix of political and technical members. It is paramount to underscore that the available international evidence shows that significant achievements within one generation are feasible where governments have successfully managed to sustain efforts across political cycles, coordinate across agencies, and design policies and programs that use and expand the evidence base (World Bank, 2018b). Thus, for instance, Senegal is a good example of prioritizing nutrition interventions beyond a single administration. Even though these efforts have been present since the country's independence, their institutionalization through the Prime Minister's Nutrition Coordination Unit in 2001 was a significant step to coordinate large-scale, cross-sectoral interventions. Between 1992 and 2017, Senegal reduced the prevalence of child stunting from 34 percent to 17 percent, the lowest in continental Sub-Saharan Africa and in sharp contrast with several neighboring countries whose child nutrition indicators have either stagnated or actually deteriorated (World Bank, 2018b).

265. In short, an enduring body that promotes a multilayered, multisectoral, whole-of-government approach with horizontal and vertical coordination must be the first step toward greater synergies in, and returns to, Liberia's efforts to develop HC.

Green Recovery and Human Capital

266. A comprehensive HC strategy for Liberia must support both mitigation and adaptation efforts to address climate change, with a focus on the latter, to protect people. Several adaptation activities could be prioritized by the GoL: agricultural policies to ensure proper nutrition, energy measures to enhance resilience, strengthened health and water management practices and social safety nets to protect the most vulnerable, behavioral change to foster a greener future, and skills development for jobs in green sectors (World Bank, 2021e). It is important to bear in mind that such actions pay dividends even in the absence of immediate climate risks.

267. First, Liberia needs to ensure food production to guarantee adequate nutrition and reduce stunting levels. One possibility is the expansion of cassava production, which is the second-most important staple in the country, but one that is highly resilient to climate change, especially to higher temperatures. Furthermore, expanding areas of cultivation in the country's central and northern agricultural zones must be considered, as must an improved weather monitoring network to produce agriculture-specific weather forecasts.

268. Second, Liberia should scale-up clean energy generation, to ensure better health and education outcomes, including to address climate shocks. In particular, the country should explore the potential of its six main rivers for hydro-power generation, and plan for the rehabilitation of existing hydro-power plants.

269. Third, Liberia's health capabilities to respond to climate change-induced diseases and health problems must be strengthened. For instance, the delivery of low-cost training can improve the capacity of health-care personnel to mitigate the impact of diseases connected with climatic factors. Similarly, the development of health early warning systems could substantially reduce the impact of heatwaves and flooding on the health of Liberians.

270. Fourth, climate change impacts in Liberia should be mainstreamed in all water resources management plans and programs to secure environmental safety and a sustainable freshwater supply for the country in the immediate, near-, and long-term future. In the same vein, Liberia's investment must support structural adaptation changes in the country's water management infrastructure, plan for urban expansion, and address sanitation and quality drinking water requirements.

271. Fifth, it would be important to develop safety nets to build resilience to climate vulnerabilities in the next decade. The experience of other countries in the region (e.g., Chad) with the creation of social registries responsive to shocks could be a helpful starting point (World Bank, 2020f). There is growing evidence that social protection plays a critical role in reducing the immediate impact of climate change, and in the longer run strengthens the resilience and adaptive capacity of people to climate change impacts (Béné, 2011). Cash transfer programs can include measures to promote behavior change to help people deal with varying weather conditions. Social protection programs can be helpful for generating savings to absorb climate shocks and foster adaptation to climate change, as well as promoting skills training and coaching to support diversification of livelihoods (Bodewig & Hallegatte, 2020).

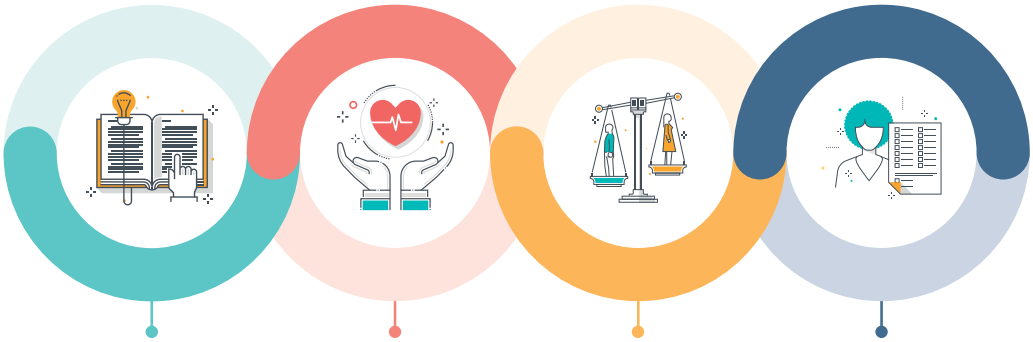
272. Finally, Liberia can increase its HC accumulation and utilization, especially for young people, by developing the skills of future workers for the green economy, as well as by promoting a behavioral change of youth toward a climate-friendly and resilient society. This would help a transition to phasing out polluting and unsustainable activities and generating new jobs, industries, services, and skillsets—all of which require new types of investment and accompanying policies (Monsalve & Watsa, 2020).

Empowering Women

273. Working toward gender equality should be one of the priorities to increase HC in Liberia. Thus, the GoL could implement the 4Es framework established in the Africa Human Capital Plan: empower, employ, and educate women, and enhance health services (see Figure 29).

274. The educate dimension of the framework should include programs to better ensure female enrollment in schools (especially at the secondary level) that are themselves of better quality. To achieve substantial results, Liberia must concurrently address multiple supply- and demand-side constraints to girls' education. On the supply side, it is important to provide equitable learning opportunities, safety in and around schools, and gender-sensitive infrastructure, including separate toilets for girls that are age-appropriate. On the demand side, the socio-cultural barriers to girls' education need to be addressed along with alternative pathways for the financial and social support to families and communities. Important but not sufficient measures to addressing these barriers are comprehensive community outreach campaigns and engagement with local community leaders and the elderly to reinforce the familial, social, and economic gains possible when girls benefit from quality education. In addition, incentives for the poorest households to send girls to schools must be reinforced, such as through conditional cash transfers.

Figure 29. The 4Es of the Africa Human Capital Plan



Educate
Keep girls in school and increase female education

Enhance Health Services
Improve access to sexual and reproductive healthcare, including for family planning programs

Empower
Address social norms on gender and make women agents of change

Employ
Promote gender equality and female employment

275. The employment dimension requires the promotion of gender equity and female employment. Thus, Liberia must create opportunities not only to build HC for women and girls, but also to use that HC to its full potential. More information shared on market demand for goods and services and returns to different economic sectors could help address the gender concentration in certain sectors, particularly the retail sector (in one of whose components—personal care or food provision—women entrepreneurs are disproportionately represented amid fierce competition and relatively low returns). Interventions that provide information that breaks these normative-based patterns, and encourages diversification into more productive goods and services, could prove cost-effective in encouraging young women to enter less saturated sectors.

276. The enhance dimension will require increasing coverage and quality of a continuum of care, including reproductive, maternal, newborn, and child health services and nutrition. In addition, diversified funding for quality contraceptive programs with improved supply, pro-poor strategies, and method choice is necessary for Liberia to benefit from its demographic dividend.

277. Finally, the empowerment dimension could benefit from efforts to address social norms that underpin constraints toward HC accumulation and utilization for women. In particular, norms related to fertility rates and the role of women could be addressed through comprehensive communication and behavioral change campaigns. While not sufficient to address existing norms, these campaigns are surely helpful. Moreover, changing regulations that limit women's agency could be a quick win. For example, prohibiting discrimination in access to credit based on gender could be a good first step.

278. More importantly, Liberia should strengthen efforts to address female genital mutilation, including supporting educational activities to increase the awareness about the health risks and harms of FGM. Moreover, providing alternative economic livelihoods that could bring new sources of income to traditional practitioners who operate bush schools and practice FGM has shown promising results (Spotlight Initiative, 2020). In many cases, traditional practitioners are willing to stop performing FGM but they do not have an alternative source of income. In addition, consideration should be given to putting in place a law that prohibits female genital mutilation, which would ensure that women and girls in the country are protected and that Liberia adheres to its regional and international human rights commitments. Currently, FGM can technically be prosecuted in Liberia as a form of "maliciously and unlawfully injur[ing] another by cutting off or otherwise depriving him of any of the members of his body." However, no perpetrators have ever been convicted of FGM under this legislation (Equality Now, 2019).

279. Following the 4Es approach to enhance women's agency will not only have the direct effect of increasing female HC and harnessing the potential of half of the Liberian populace. It will also have a multiplicative effect on the whole economy, because it will accelerate the transition to the demographic dividend and because it has been widely proven that investing in women has large, positive, socio-economic intergenerational effects.

Addressing Fragility and the Impacts of the COVID-19 Pandemic

280. Addressing the multiple sources of fragility and crises (health-related or natural disaster-related, for instance) is paramount to fostering HC development and enabling people to utilize their skills and capacities for productive growth. Tackling the sources of fragility and impacts of crises require well-planned and sustained efforts. The recommendation on this matter focuses on critical potential opportunities, including (a) strengthening institutions and building trust, (b) protecting hospitals, schools, and other facilities that are key in delivering essential services, and (c) reducing the levels of interpersonal violence.

281. First, institutional capacity and levels of transparency and accountability should be addressed across the board. While the experience of other countries can be helpful, this process must be driven by in-country forces, in which civil society can play a central role. However, the latest CSO sustainability index reveals many challenges, including on legal environment, problems of financial viability, and weak capacity. Recently, advocacy CSOs reported abnormally long wait times (often of nearly one year) to complete re-accreditation, which put them at risk of operating illegally and hampered their ability to apply for grants (USAID, 2019b). More generally, on the CSO overall index, Liberia scores 4.8 on a scale of 1 (enhanced) to 7 (impeded). Strengthening the capacity of MFDP's Non-Governmental Organization Coordination Unit to facilitate organizations in the exercise their rights could represent a significant opportunity to start a virtuous accountability and transparency cycle. This process would likely contribute to increased trust between citizens and the government, which is vital to addressing fragility challenges in place.

282. Second, it is important to enhance efforts to protect key infrastructure for the delivery of basic services. This includes education institutions (from pre-primary to higher education), hospitals, other health facilities, and water treatment plants. However, providing good services will not suffice if citizens do not feel safe using them. In the case of schools, measures can be taken to ensure physical protection measures, resilience to natural disasters, early warning systems, and comprehensive school-based safety and security plans. These plans require strong leadership from principals and school management or protection committees, with active participation from community members and parents' associations (Kapit-Spitalny & Burde, 2010). They also require coordination among government entities and between them and donors and relevant CSOs. Plans can incorporate an array of measures, including protection, mitigation, and response actions. Within schools, and given the history of conflict of Liberia, education should promote peace instead of triggering conflict, and it should provide physical and psychosocial protection for students, including by addressing gender-based stereotypes and barriers that can trigger or exacerbate attacks to schools, students, and school staff (GCPEA, 2018).

283. Third, efforts to reduce interpersonal violence are vital to increasing HC. Violence has seriously detrimental effects on human development outcomes. The available evidence shows that the focus must be on the prevention of violence rather than repression. The benefits of preventing violence are multiplied because they can lead to improved health, education, and savings. For instance, investments in prevention reduce the prevalence and severity of violence and related injury and disability, as well as associated conditions, such as chronic disease, mental health problems, and poor learning. This means reduced health-care expenditures related to violence and better education outcomes—in short, improved efficiency and increased HC.

284. Liberia has tried several programs that have successfully reduced violence and can be scaled up to maximize results. Recent experimental evidence for Liberia has shown that cognitive-behavioral therapy interventions can reduce violence significantly and thus contribute to HC formation. These programs have been found to be even more impactful when the behavioral interventions are followed by cash transfers, which exemplifies the potential of multisectoral interventions (Blattman et al., 2017).

285. The COVID-19 pandemic has exacerbated the sources of fragility that Liberia faces. Consequently, it is vital to design interventions that can mitigate the impact of the COVID-19 pandemic on the most vulnerable, avoiding an escalation of the fragility levels. Thus, for example, access to routine and essential health services during the pandemic needs to be ensured, including for the vulnerable. Community-based health services are an effective way to access hard-to-reach populations. To ensure continuous access to both COVID-19 and non-COVID-19 health services, a sustained number of community health workers volunteers, assistants, and supervisors need to be trained on outbreak preparedness, surveillance, and management. Clear and safe protocols need to be established to guarantee the safety of both patients and health-care providers, to allow for the continuation of health-care service delivery during and after the crisis.

286. Similarly, reliable evidence from previous and similar crises that led to prolonged closures of schools shows an increase in drop-out rates as an outcome of crises. Students who drop-out of school are disproportionally from disadvantaged backgrounds, which exacerbates fragility-related conditions in their communities (limited access to quality jobs, low future earnings, increased crime rate, high demand for social services). School drop-out was a major issue in Liberia before the start of the COVID-19 pandemic and will likely increase as a result of the closure of schools for most of the 2020-21 school year. Thus, policies to track and reduce drop-out rates will be crucial during the recovery phase.

Addressing Financial Constraints

287. In the absence of a significant increase in financial resources, the binding constraints on HC formation in Liberia will not be surmounted, although they can be mitigated to some degree. To achieve better outcomes in HC, Liberia needs to revise its budget allocation exercises by prioritizing such investments, augmenting efficiencies and economies of scale, and raising domestic resource mobilization levels.

288. Iterative Public Expenditure and Institutional Reviews, with a focus on HC, could be a particularly useful tool to better understand Liberia's revenue collection and expenditures on HC. Liberia must focus on creating a path toward sustainability and self-reliance through sound fiscal decisions, improved governance, and enhanced domestic resource mobilization. The greater knowledge generated through the proposed process could in turn lead to better planning and consequently to a reduced dependence on donors and more sustainable expenditures in the long term.

289. Second, considering the current fiscal constraints, it is fundamental to increase the efficiency of spending on HC-related programs. Increasing coordination across government agencies and eliminating overlapping functions is a way to achieve better results with the same resources. Similarly, improving governance, including public financial management, and increasing transparency and accountability, will reduce diversion of resources that jeopardize potential beneficiaries.

290. Finally, Liberia will not be able to achieve adequate levels of HC spending without strengthening its domestic resource mobilization. This should be done in a sustainable manner that does not affect the most vulnerable and with a progressive system that considers the effects of tax collection on the economy as a whole. Collecting more resources will only be possible after a careful analysis of the sources of revenue and with careful policies that do not reduce private investments in HC, but there are at least two strategies worth mentioning.

291. First, strengthening the capacity of tax administration agencies could raise tax collection levels. While this is a complex process, empirical evidence suggests that a critical step entails adopting key administrative practices such as compliance risk management and the use of third-party reporting (Chang et al., 2020). Comparative studies suggest that an overall improvement in the institutional capacity and in transparency and accountability could increase tax collection (Besley & Persson, 2013) and reduce "political budget cycles," whereby tax collection declines before elections (Prichard, 2016).

292. Second, some recent proposals to address the lack of resources for HC could be revisited. For example, during the 2018 Education Forum, the MoE proposed a tax on alcohol to bolster the national budget with a focus on education. Such a measure would have the double benefit of improving health outcomes while creating more resources for HC spending.

Using Technology and Innovations

293. Technological and other innovations have the potential to boost HC in Liberia. To harness the full potential of technological innovations, the GoL should expand Internet connectivity to reach a much larger percentage of the populace and prioritize education institutions for learning purposes. Similarly, the health system will greatly benefit from increased connectivity, and social protection services could be better targeted in a more connected environment.

294. The use of technology and innovations in Liberia can improve access to services, for example by addressing supply-side issues in remote areas and by reducing the cost of services. Technology can also contribute to the continuity of service delivery, such as through remote learning in times of school closures as observed with the COVID-19 pandemic in 2020. Furthermore, technologies can help target those who need services the most by improving registration and enabling geo-referencing to facilitate the identification of beneficiaries. Lastly, technology is key to improving management systems and increasing the efficiency of service delivery.

295. Innovations do not always imply the utilization of high-tech solutions. In multiple situations, large impacts can be achieved using low-tech, low-cost solutions. For example, radio instruction during times of school closures can be much more effective and reach many more students than more advanced 'solutions.' Even sending text messages and direct phone calls have proven effective in increasing learning in other low-income settings (Angrist et al., 2020). More broadly, information-sharing initiatives are innovative and extremely effective, yet low-cost and low-tech. Other innovations such as sports programs to promote HC accumulation are also promising.

296. When deploying technologies, Liberian authorities should be aware of the potential risks associated with them. One of the major risks is on existing inequalities, which could be exacerbated with the adoption of technology, as the most disadvantaged typically have circumscribed access to it—as was evidenced in COVID-19-related teaching practices based on the utilization of electronic devices after closing schools. In many of such cases, the most disadvantaged did not have the needed electronic devices and/or access to the Internet, so the inequality gap enlarged during the closure of schools. Thus, while technologies create enormous opportunities for HC development, the solutions should not be applied without risk considerations. The guiding principles presented in the Africa Human Capital Plan suggest the following approaches.

- **People at the center:** focus on providers and ways to improve their ability to deliver services through a recognition of the central role of people, families, and communities.
- **Plurality:** move from a top-down vision of the systems to adapting the role of the governments to recognize and harness the actions of diverse actors, including the private sector, CSOs, and others.
- **Context-specificity:** move from one-size-fits-all approach to frontline delivery to tailored and targeted HC programs, backed up by country leadership and ownership.

- **Start in the most challenging environments:** launch programs in less advantaged communities, and then roll them out to more privileged ones, where they will likely face less challenges.

- **Mitigate risks:** technologies present many risks, including increased inequality and data protection issues. It is important to generate mitigation mechanisms, including social protection for those who might be jeopardized.

- **Prioritize work-enhancing technologies:** prioritize technologies that support workers instead of technologies that replace workers.

297. Finally, technology and innovations for HC investments must be disability sensitive, including through the use of universal design and accessibility standards. This will guarantee that those with disabilities will not be left behind. When rolling out the use of technology and innovations, Liberia can build on successful and promising experiences from recent years, such as the initiatives to improve timely detection of diseases (see WHO, 2017b) and CSOs' programs to develop HC through sports.

Addressing Demand-Side Constraints

298. In many cases, providing better services and strengthening the supply of HC-related programs will not be enough to increase the uptake and encourage certain elements of the populace to use services made available to them. Consequently, it is important to design demand-side interventions to encourage people that otherwise would not access services to do so. At least three types of interventions could be considered: address beliefs and cultural norms, address the lack of household resources, and fill information gaps.

299. First, addressing social norms that hinder people from seeking social services can be accomplished by scaling up communication, advocacy, and awareness campaigns. These interventions can also be designed to change behaviors that are detrimental to health outcomes, such as vaccination-reluctance, SGBV (especially in schools), and open defecation. To better understand and counter such norms, community members and development partners with capacity to influence a large number of citizens should take part in these campaigns.

300. Second, households' financial constraints need to be addressed by expanding safety nets and increasing conditional cash transfers. The targeting mechanisms have to be evidence-based and transparent, and the most vulnerable must be the focus of these interventions. This is especially important for financial constraints affecting school attendance. Thus, it is important to scale up current efforts, such as the Youth Opportunities Project, which aims to set minimum standards of operations in the modalities of targeting, identifying, and delivering cash transfers (World Bank, 2020g).

301. Third, information gaps need to be bridged by providing communities, households, and individuals with more and more reliable and persuasive information on programs and service providers. As previously noted, providing information to parents and children on the income-earning benefits of education, when they are not known, on sources of funding

available, and on the quality of local schools tends to increase attendance and learning at low cost (World Bank, 2020c). Similar interventions can be designed to increase the uptake of many other social services.

Toward a National Strategy for Human Capital Development

302. Experience from other countries shows that preparing a strategy for HC development can incentivize multiple stakeholders to align their efforts to design and implement HC-related policies and programs. One of the first tasks of the aforementioned committee/Cabinet-level task force could be the preparation of a national HC development strategy, which (a) should be aligned with the Pro-Poor Agenda for Prosperity and Development and relevant sectoral plans, and (b) could build on the HC assessment presented this report.

303. Over the course of the HC assessment carried out in Liberia, multiple consultations were conducted with government stakeholders, development organizations, and civil society organizations. One of the main outcomes of these consultations was a strategic framework for HC development in Liberia, the main elements of which are summarized in Table 13. This strategic framework and the Theory of Change for HC development presented in Chapter III are intertwined. Moreover, the recommendations presented above are aligned with the strategic framework's pillars. However, it is worth mentioning that the proposed recommendations are broader than the strategic framework's measures. The latter should be detailed in a future action plan and eventually become national programs.

Table 13. Key Elements of Liberia's Strategic Framework for Human Capital Development

VISION		
Liberian citizens will benefit from holistic human capital development programs that support and promote personal growth, welfare, social integration, inclusion, equity, and ultimately an equitable and sustainable development model by 2030.		
MISSION		
To ensure equitable and inclusive access to quality education, health, nutrition, and social protection services, as well as complementary programs that maximize human capital accumulation for economic growth.		
MEASURES		
Strategic Pillar 1 Expanding collaboration	**Strategic Pillar 2** Enhancing institutional capacity	**Strategic Pillar 3** Increasing incentives
◊ Adopt a whole-of-government and inclusive approach to human capital development in alignment with the National Strategy for Human Capital Development ◊ Organize forums with relevant stakeholders and representatives of the private sector to address human capital issues on a regular basis ◊ Disseminate information on programs and policies that foster human capital development as widely and frequently as possible	◊ Ensure that institutions with a role in human capital development are properly staffed ◊ Identify and address the training needs of staff who play a core role in human capital development ◊ Eliminate overlapping functions among institutions involved in human capital development	◊ Increase the efficiency and annual budget allocations of programs aimed at developing human capital ◊ Improve the efficiency of the public spending on human capital development programs ◊ Establish and monitor performance targets for institutions with a role in human capital development ◊ Promote equitable and inclusive access to human capital development programs

Proposed Targets

304. Establishing targets has proved crucial to align incentives, monitor progress, and assess what works and what does not work well. Determining specific HC-related targets for Liberia must be a collective endeavor by all the government agencies involved in HC development. Table 14 suggests some indicative targets that align with the methodology used to calculate the regional targets of the Africa Human Capital Plan produced by the World Bank, but using data and trends applicable to Liberia. Most of the targets connect to a specific Sustainable Development Goal.

Table 14. Indicative Targets for a Possible Strategic Plan for Liberia's Human Capital Development

Indicator	Related SDG	Baseline	Year Base	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Final Targets (2030)
Expected Years of School	SDG 4.1	4.20	2019	4.23	4.24	4.25	4.26	4.28	4.29	4.30	4.31	4.32	4.33	4.34
Harmonized Test Scores		332.00	2017	361.52	371.93	382.64	393.66	405.00	416.66	428.66	441.01	453.71	466.78	480.22
Learning-adjusted Years of School		4.94	2017	2.45	2.53	2.60	2.69	2.77	2.86	2.95	3.04	3.14	3.23	3.34
Probability of Survival to Age 5	SDG 3.2	0.93	2018	0.94	0.94	0.95	0.95	0.96	0.96	0.97	0.97	0.97	0.98	0.98
Malnutrition, Height for Age	SDG 2.2	31.6% of children under 5 are stunted	2019	0.73	0.74	0.75	0.76	0.77	0.78	0.79	0.80	0.81	0.82	0.83
Adolescent Fertility Rate (births per 1,000 women ages 15-19)	SDG 3.7	135 births per 1,000 women ages 15-19	2019	135.05	134.21	133.38	132.54	131.71	130.87	130.04	129.20	128.36	127.52	126.68
Other Indicators														
Adult Survival Rate		0.78	2019	0.79	0.80	0.82	0.83	0.85	0.86	0.87	0.88	0.89	0.90	0.91
HCI		0.32	2020	0.32	0.34	0.34	0.35	0.36	0.36	0.37	0.37	0.38	0.39	0.39

Key Shorter-Term Measures

305. The recommendations discussed above should be considered as guidance to engage policymakers in debates toward the preparation of a national strategy for HC development. Based on these recommendations and the analysis presented in previous chapters, this report concludes by proposing the following set of measures to be considered by the GoL for HC accumulation and utilization in the short term (quick wins).

- **Improve the efficiency of decentralized services.** Enhancing county service centers' managerial and technical capacity will help to ensure more equitable access to essential HC-related services across the country.

- **Define standards and minimum qualifications for service delivery.** Basic standards for delivering HC-related services do not exist in Liberia, and their creation could be the first step to improve service delivery and, consequently, promote HC accumulation. For instance, defining minimum qualifications for school leadership roles can enhance management practices and reduce disparities originated in different managerial capacities.

- **Enhance cash flows and mechanisms to improve accountability in service delivery.** Service delivery is affected by inefficient cash flows. A first step could be improving financial management information systems in multiple agencies, including the MoH.

- **Promote a system of transparent meritocratic recruitment of public servants.** Although the implementation of this measure might be challenging given the current stock of public servants, the adoption of meritocratic human resources management procedures can improve the quality of services.

- **Increase the availability of female teachers in secondary education.** Female teachers can increase the likelihood of female students staying in school, including by increasing their safety and aspirations, as proven by reliable evidence.

- **Improve procurement processes, distribution, and storage of key inputs** such as textbooks for the education sector and medicines for the health sector to avoid inefficient use of resources. The experience from other countries suggests that involving civil society and training local citizen monitors can improve transparency (Struben, 2013).

- **Provide universal coverage of unique identification cards,** which could lead to a reduction of the current associated cost. Liberia could follow the examples from countries such as Benin, Burkina Faso, Côte d'Ivoire, Guinea, Niger, and Togo. Building on the efforts for the establishment of the National Identification Registry, the GoL could provide identification cards to all citizens as a crucial step toward a wide delivery of HC-related services.

- **Enact policies that can empower women.** Although social norms will not change suddenly after formal rules are modified, legal improvements are vital cornerstones to achieve greater gender equality, which will, in turn, increase the HC of the generations to come. An example could be nondiscriminatory access of women to credit.

- **Improve communication of service delivery, so as to increase uptake of social services.**

Liberia can extract lessons from the communications campaign launched during the Ebola outbreak. Some examples that can rapidly increase outcomes are (a) communication campaigns with information about schools and returns to education to increase enrollment rates; (b) campaigns to reduce open defecation; and (c) vaccination awareness-raising campaigns. These communication campaigns can use behavioral sciences, technologies (even low-tech solutions such as text messaging), and community leaders to maximize their impact. In many cases, these campaigns can target the most vulnerable, including people with disabilities, who often face more challenges to accessing HC-related services.

- **End violence against children, particularly in schools.** In addition to the previously discussed need to make schools safe spaces, violence against children should be eradicated. This could be fostered by changing the regulations that allow corporal punishment of children. Current regulations allow the use of force by parents, guardians, and teachers against children for "prevention and punishment of misconduct" (Global Initiative to End All Corporal Punishment of Children 2018).

- **Scale-up innovations across sectors that can increase access to basic HC-related services.** For instance, recent innovations such as the use of motorcycles to deliver clinical samples from remote areas to laboratories can be expanded. Other options could be considered by the GoL, such as the use of drones to deliver blood samples, following the example of Rwanda. These innovations should be preceded by careful cost-benefit analyses.

- **Expand digital skills.** One of the main challenges for Liberian youth to find high-quality jobs is the lack of skills in high demand in the job market. These include digital skills, whose development should be prioritized by the GoL. The implementation of this measure might be challenging because of the lack of connectivity in the country. However, actions to be taken in the very short term include the revision of the curriculum to incorporate or prioritize the development of digital skills. The UNESCO Global Framework of Reference on Digital Literacy Skills could be of help in this regard (UNESCO, 2018b).

References

Abril, M. E. R. (2008). Girls' vulnerability assessment. Government of Liberia, Nike Foundation, World Bank: Liberia.

Africa Human Capital Plan. (2019). *Liberia Human Capital Scorecard.* https://www.worldbank.org/en/region/afr/publication/africa-human-capital-plan

Alderman, H., Hoddinott J., & Kinsey B. (2006). "Long term consequences of early childhood malnutrition." *Oxford economic papers* 58.3: 450-474.

Andrews, K., Avitabile, C., & Gatti, R. (2019). Domestic Government Spending on Human Capital: A Cross-Country Analysis of Recent Trends. Policy Research Working Paper; No. 9033. World Bank, Washington, DC.

Angrist, N., Bergman, P., Brewster, C., & Matsheng, M. (2020). Stemming learning loss during the pandemic: A rapid randomized trial of a low-tech intervention in Botswana. Available at SSRN 3663098.

Arias, O., Evans, D. K., & Santos, I. (2019). The skills balancing act in Sub-Saharan Africa: Investing in skills for productivity, inclusivity, and adaptability. World Bank Publications.

Armed Conflict Location & Event Data Project (ACLED). (2021). www.acleddata.com.

Bandiera, O., N. Buehren, M. P. Goldstein, I. Rasul, and A. Smurra. (2019). The Economic Lives of Young Women in the Time of Ebola: Lessons from an Empowerment Program. Washington, DC: World Bank.

Beegle, K., Coudouel, A., & Monsalve, E. (Eds.). (2018). Realizing the full potential of social safety nets in Africa. World Bank Publications.

Besley T. & Persson T. (2013). "Taxation and Development." Handbook of Public Economics, Volume 5, Pages 1-474. vol. 5.

Béné, C. (2011). Social protection and climate change. IDS Bulletin, 42(6), 67-70.

Blattman, C., Jamison, J. C., & Sheridan, M. (2017). Reducing crime and violence: Experimental evidence from cognitive behavioral therapy in Liberia. American Economic Review, 107(4), 1165-1206.

Blunch, N., (2020). *Building Human Capital: Lessons from Country Experiences—Ghana.* World Bank, Washington, DC. World Bank. https://openknowledge.worldbank.org/handle/10986/34205 License: CC BY 3.0 IGO.

Bodewig, C., & Hallegatte, S. (2020). "Building back better after COVID-19: How social protection can help countries prepare for the impacts of climate change." World Bank Blogs. https://blogs.worldbank.org/climatechange/building-back-better-after-covid-19-how-social-protection-can-help-countries-prepare.

Borgarello, A., Figazzolo, L., & Weedon, E. (2011). Liberia: a diagnostic of social protection.

Bowles, J., Larreguy, H., & Liu, S. (2020). How Weakly Institutionalized Parties Monitor Brokers in Developing Democracies: Evidence from Post conflict Liberia. *American Journal of Political Science, 64*(4), 952-967.

Brand, S., & Price, R. (2000). The economic and social costs of crime.

Canning, D., Raja, S., & Yazbeck, A. S. (Eds.). (2015). *Africa's demographic transition: dividend or disaster?* The World Bank.

Carew, M. T., Colbourn, T., Cole, E., Ngafuan, R., Groce, N., & Kett, M. (2019). Inter-and intra-household

perceived relative inequality among disabled and non-disabled people in Liberia. *PloS one, 14*(7), e0217873.

Carroll, R., (2003). The Children of Jungle Fire go into battle - on a diet of drugs. The Guardian. https://www.theguardian.com/world/2003/aug/04/westafrica.rorycarroll.

Case, A., and C. Paxson. (2006). "Stature and Status: Height, Ability, and Labor Market Outcomes." *NBER Working Paper* 12466, National Bureau of Economic Research, Cambridge, MA.

Center for International Development. (2021). Building State Capability; PDIA toolkit. https://bsc.cid.harvard.edu/PDIAtoolkit.

Centers for Disease Control and Prevention (CDC). (2020). Global Health Protection and Security; Motorcycles help speed diagnostics in Liberia. https://www.cdc.gov/globalhealth/healthprotection/fieldupdates/winter-2017/liberia-motorcycle.html.

Currie, J., & Thomas, D. (1999). "Does Head Start Help Hispanic Children?" *Journal of Public Economics* 74 (2): 235–62.

Chamarbagwala, R., & Morán, H. E. (2011). The human capital consequences of civil war: Evidence from Guatemala. *Journal of Development Economics, 94*(1), 41-61.

Chang, E. S., Gavin, E., Gueorguiev, N., Honda, J., & Baer, K. (2020). Raising Tax Revenue: How to Get More from Tax Administrations? *IMF Working Papers, 2020*(142).

Deepak, S., & Harris, N. (2018). Diagnostic Study on Disabled People's Organizations and National Union of Organizations of the Disabled in Liberia. https://asksource.info/resources/diagnostic-study-disabled-peoples-organisations-and-national-union-organisations-disabled.

Devine, J., & Neal, D. (2016). New tactics to nudge habit change for open defecation behavior. https://blogs.worldbank.org/water/new-tactics-nudge-habit-change-open-defecation-behavior.

Emile, A., Hustings I., & Torori C. (2020). Keeping Liberian women safe from violence. https://blogs.worldbank.org/africacan/keeping-liberian-women-safe-violence#:~:text=Liberia%20ranks%20177th%20out%20of,endorses%20sexual%20violence%2C%20including%20rape.

Enterprise Surveys. (2021). Power outages in firms in a typical month (Liberia). World Bank. https://data.worldbank.org/indicator/IC.ELC.OUTG?end=2017&locations=LR&start=2009&view=chart.

Equality Now (2019). Liberia: Enact a comprehensive anti-FGM law. https://www.equalitynow.org/liberia_enact_a_comprehensive_anti_fgm_law.

Evans, D., & Nestour, A., (2019). Center for global Development. *Are female teachers better for girls' education.* https://www.cgdev.org/blog/are-female-teachers-better-girls-education#:~:text=One%20study%20in%20the%20US,as%20useful%20for%20the%20future.

Fetter, R., Fuller, A., & Sinai, C. (2020). You can't fight pandemics without power-electric power. Brookings. https://www.brookings.edu/blog/future-development/2020/06/05/you-cant-fight-pandemics-without-power-electric-power/.

Fritz, V., & Levy, B. (2014). Problem-driven political economy in action: overview and synthesis of the case studies.

Gauri, V., Rahman, T., & SEN, I. K. (2018). Shifting social norms to reduce open defecation in rural India. *Behavioural Public Policy*, 1-25.

Global Coalition to Protect Education from Attack (GCPEA). (2018). What can be done to better protect women and girls from attacks on education and military use of educational institutions.

https://protectingeducation.org/wp-content/uploads/documents/documents_what_can_be_done_to_better_protect_women_and_girls.pdf.

Global Initiative to End All Corporal Punishment of Children. (2018). *Corporal punishment of children in Liberia.* http://www.endcorporalpunishment.org/wp-content/uploads/country-reports/Liberia.pdf.

Goodman, J., Hurwitz, M., Park, J., & Smith, J., (2018). "Heat and learning," *NBER Working Paper No. w24639.*

Grönlund, M. (2019). Women with Disabilities, Peace and Security in Liberia: Liberian disabled women's experiences of peace and security processes through the lens of the United Nations Security Council Resolution 1325.

GSMA. (2019). GSMA Mobile Connectivity Index. https://www.mobileconnectivityindex.com/#year=2019.

Harris, D. (2013). Applied political economy analysis. *A problem-driven framework.* London: Overseas Development Institute.

Hoddinott, J., Maluccio J., Behrman J., Flores R., & Martorell, R. (2008). "Effect of a Nutrition Intervention during Early Childhood on Economic Productivity in Guatemalan Adults." *The Lancet 371* (9610): 411–16.

Hsieh, C. T., & Klenow, P. J. (2010). Development accounting. *American Economic Journal: Macroeconomics, 2*(1), 207-23.

Iimi, A., & Rao, K. S. (2018a). Transport connectivity and health care access: evidence from Liberia. *World Bank Policy Research Working Paper*, (8413).

Iimi, A., & Rao, K. (2018b). *Spatial Analysis of Liberia's Transport Connectivity and Potential Growth*. World Bank Publications.

International Labor Organization (2020). ILOSTAT database, data retrieved on September 20, 2020. https://ilostat.ilo.org/data/.

Institute for Economics and Peace (IEP). (2020). Peace Index 2020; Measuring Peace in a Complex World. https://www.visionofhumanity.org/wp-content/uploads/2020/10/GPI_2020_web.pdf.

Isaksson, A. S., & Bigsten, A. (2017). Clientelism and ethnic divisions in African countries. African Affairs, 116(465), 621-647.

Johansson de Silva, S., Del Bono, M., & Strokova, V., (2021). *Transforming Jobs in Liberia. Findings from Liberia Jobs and Skills Study*, World Bank. Forthcoming.

Kapit-Spitalny, A., & Burde, D. (2010). Prioritizing the Agenda for Research for the Global Coalition to Protect Education from Attack: Why Evidence is Important, What We Know, and How to Learn More.

Koppensteiner, M. F., & Menezes, L. (2019). Violence and human capital investments.

Kruk, M. E., Rockers, P. C., Tornorlah Varpilah, S., & Macauley, R. (2011). Population preferences for health care in Liberia: insights for rebuilding a health system. *Health services research, 46*(6pt2), 2057-2078.

Leon, G. (2012). Civil conflict and human capital accumulation the long-term effects of political violence in Peru. *Journal of Human Resources, 47*(4), 991-1022.

Liberia Institute of Statistics and Geo-Information Services (LISGIS) and International Labour Organization (ILO). (2010). Report on the Liberia Labour Force Survey 2010.

Liberia Institute of Statistics and Geo-Information Services (LISGIS). (2017). Household Income and Expenditure Survey. https://www.researchgate.net/publication/325428608_HIES_2016_StatisticalAbstract_Final_final.

Lloyd, S.J., R.S. Kovats, & Chalabi, Z. (2011). "Climate change, crop yields, and malnutrition: development of a model to quantify the impact of climate scenarios on child malnutrition," *Environmental Health Perspectives*, 119(12), 1817-1823.

Malkin, R. A. (2007). Design of health care technologies for the developing world. *Annu. Rev. Biomed. Eng., 9,* 567-587.

Ministry of Education, Liberia. (2018). Inclusive Education Policy. http://MoE-liberia.org/wp-content/uploads/2019/07/Liberia-Inclusive-Education-Policy.pdf.

Molini, V., Azad, MD., & Maio, M. (2019). How much Boko Haram forbid education in Nigeria. World Bank. https://blogs.worldbank.org/africacan/how-much-did-boko-haram-forbid-education-nigeria.

Monitor, W. G. (2018). How does the world feel about science and health? London, UK: Wellcome Trust. URL: https://wellcome. ac. uk/reports/wellcome-global-monitor.

Monsalve, C., & Watsa, K. (2020). Human Capital and Climate Action: outcomes that deliver for people and planet. https://blogs.worldbank.org/climatechange/human-capital-and-climate-action-outcomes-deliver-people-and-planet.

Montenegro, C. E., & Patrinos, H. A. (2014). *Comparable estimates of returns to schooling around the world*. The World Bank.

Namen, O., Prem, M., & Vargas, J. F. (2020). The human capital peace dividend. *Available at SSRN 3424863.*

National Academies of Sciences, Engineering, and Medicine. (2018). Addressing the Social and Cultural Norms That Underlie the Acceptance of Violence: Proceedings of a Workshop—in Brief.

Omedo, M., Ogutu, M., Awiti, A., Musuva, R., Muchiri, G., Montgomery, S. P., & Mwinzi, P. (2014). The effect of a health communication campaign on compliance with mass drug administration for schistosomiasis control in western Kenya—the SCORE project. *The American journal of tropical medicine and hygiene, 91*(5), 982-988.

Patchett, E. (2010). The Curse: the impact of sanitation on schoolgirls in the developing world. The Guardian. https://www.theguardian.com/journalismcompetition/sanitation-schoolgirls-in-the-developing-world.

Postmus, J. L., Hoge, G. L., Davis, R., Johnson, L., Koechlein, E., & Winter, S. (2015). Examining gender-based violence and abuse among Liberian school students in four counties: An exploratory study. *Child abuse & neglect,* 44, 76-86.

Prichard, W. (2016). "Reassessing Tax and Development Research: A New Dataset, New Findings, and Lessons for Research." *World Development*, 80, 48-60.

Republic of Liberia. (2012). Agenda for Transformation, Steps toward Liberia RISING 2030.

Spotlight Initiative. (2020). Practitioners of Female Genital Mutilation become part of the solution in Liberia. https://www.spotlightinitiative.org/news/practitioners-female-genital-mutilation-become-part-solution-liberia.

Struben, W. (2013). Helping Department of Education Improve Procurement and Distribution of Textbooks, Partnership for Transparency. https://www.ptfund.org/publication_page/helping-department-of-education-improve-procurement-and-distribution-of-textbooks/.

Sustainable Energy for All, March. (2018). *Cooling for All, Current and Projected Cooling Demand, Background Documents.* https://www.seforall.org/sites/ default/files/2019-05/CurrentandProjectedCoolingDemand.pdf.

The Economist Intelligence Unit. (2020). The Blue Peace Index 2020. https://bluepeaceindex.eiu.com/#/.

The Social Cohesion and Reconciliation Index (SCORE). (2018). Liberia. https://scoreforpeace.org/en/liberia/2018-General%20population-0.

United Nations Development Programme (UNDP). (2018). Building effective climate governance in Liberia; https://www.adaptation-undp.org/building-effective-climate-governance-liberia.

United Nations Department of Economic and Social Affairs (UNDESA). (2018). Disability and Development Report. Realizing the sustainable development goals by, for and with persons with disabilities. https://social.un.org/publications/UN-Flagship-Report-Disability-Final.pdf

United Nations Educational Scientific and Cultural Organization (UNESCO). (2018a). Education and Disability: Analysis of Data from 49 countries. http://uis.unesco.org/sites/default/files/documents/ip49-education-disability-2018-en.pdf

United Nations Educational Scientific and Cultural Organization (UNESCO). (2018b). *A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2.* UNESCO Information Paper No. 51.

United Nations Educational Scientific and Cultural Organization (UNESCO) Institute of Statistics. (2021). Liberia; Education and Literacy. http://uis.unesco.org/en/country/lr.

United Nations Children's Emergency Fund (UNICEF). (2018). Drinking water, sanitation and hygiene in schools: global baseline report 2018.

United Nations Children's Emergency Fund (UNICEF). (2019). *WASH in health care facilities interactive dashboard.* https://data.unicef.org/resources/wash-in-health-care-facilities-data-viz/.

United Nations Children's Emergency Fund (UNICEF). (2021). State of the world's children, childinfo, and demographic and health surveys. *Births attended by skilled health staff (% of total).* http://data. World bank. org/indicator/SH.STA.BRTC.ZS.

United Nations Population Fund (UNFPA). (2016). *Demographic Dividend.* https://www.unfpa.org/demographic-dividend.

United Nations Population Fund (UNFPA). (2021). Adolescent and Youth Dashboard, Liberia. https://www.unfpa.org/data/adolescent-youth/LR.

United Nations Women. (2016). Global Database on Violence against women, Liberia. https://evaw-global-database.unwomen.org/fr/countries/africa/liberia#1.

United States Agency International Development (USAID). (2017). Climate change risk profile Liberia - Fact Sheet; https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID%20ATLAS_Climate%20Risk%20Profile_Liberia.pdf.

United States Agency International Development (USAID). (2019a). Country Development Cooperation Strategy. https://www.usaid.gov/sites/default/files/documents/1860/CDCS_Liberia_June_2024.pdf.

United States Agency International Development (USAID). (2019b). 2019 Civil Society Organization

Sustainability Index. https://www.fhi360.org/sites/default/files/media/documents/csosi-africa-2019-report.pdf.

Wantchekon, L., Klašnja, M., & Novta, N. (2015). Education and human capital externalities: evidence from colonial Benin. *The Quarterly Journal of Economics, 130*(2), 703-757.

Ward, J., Ernst, L., & Kirk, J. (2005). *Broken bodies, broken dreams: violence against women exposed*. United Nations Publications.

Welland, A. (2017). Electrification of health clinics in rural areas: Challenges and opportunities. http://test.e4sv.org/wp-content/uploads/2017/05/TR12-Electrification-of-health-clinics-in-rural-areas-Challenges-and-opportunities_web.pdf

Williams, J., Bentrovato, D., & UNESCO International Institute for Educational Planning (IIEP). (2011). Education and fragility in Liberia.

Women, Business and the Law (2021). 2021 Data. https://wbl.worldbank.org/en/wbl-data.

World Bank. (2013). Gender at work; A companion to the World Development Report on jobs. https://www.worldbank.org/content/dam/Worldbank/Event/Gender/GenderAtWork_web2.pdf.

World Bank. (2016a). Liberia Education Sector Analysis. http://documents1.worldbank.org/curated/en/481011575583469840/pdf/Liberia-Education-Sector-Analysis.pdf.

World Bank. (2016b) *Moving up the ladder: poverty reduction and social mobility in Nepal (Vol. 2): Full report* (English). Poverty and Equality Global Practice Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/938301474378140220/Full-report.

World Bank Group. (2018a). *Republic of Liberia from Growth to Development: Priorities for Sustainably Reducing Poverty and Achieving Middle-Income Status by 2030*. Systematic Country Diagnostic. World Bank, Washington, DC. World Bank. https://openknowledge.worldbank.org/handle/10986/29880 License: CC BY 3.0 IGO.

World Bank. (2018b). The Human Capital Project. http://documents1.worldbank.org/curated/en/270541555605484950/pdf/Human-Capital-Project-How-Countries-Nurture-Human-Capital-Implement-a-Whole-of-Government-Approach.pdf.

World Bank. (2020a). *Liberia Economic Update, June 2020: The COVID-19 Crisis in Liberia - Projected Impact and Policy Options for a Robust Recovery*. World Bank, Monrovia. World Bank. https://openknowledge.worldbank.org/handle/10986/34271 License: CC BY 3.0 IGO.

World Bank. (2020b). *FY21 List of Fragile and Conflict-affected Situations*, Access: pubdocs.worldbank.org/en/888211594267968803/FCSList-FY21.pdf.

World Bank. (2020c). Cost-effective approaches to improve global learning. What does recent evidence tell us are "Smart buys" for improving learning in low- and middle-income countries? *Recommendations of the Global Education Evidence Advisory Panel*, World Bank, FCDO, Building Evidence in Education.

World Bank. (2020d). Poverty and Equity Brief, Liberia. https://databank.worldbank.org/data/download/poverty/987B9C90-CB9F-4D93-AE8C-750588BF00QA/AM2020/Global_POVEQ_LBR.pdf.

World Bank. (2020e). Liberia Digital Economy Diagnostic. https://www.worldbank.org/en/topic/digitaldevelopment/brief/digital-economy-country-diagnostics-for-africa.

World Bank. (2020f). Chad Safety Net Projects. https://projects.worldbank.org/en/projects-operations/project-detail/P156479.

World Bank. (2020g). Youth Opportunities Project in Liberia Helps Young People Increase their Earning Potential. https://www.worldbank.org/en/results/2020/11/10/youth-opportunities-project-in-liberia-helps-young-people-increase-their-earning-potential.

World Bank. (2021a). World Bank Open Data. https://data.worldbank.org/indicator/SH.MED.PHYS.ZS?most_recent_value_desc=false.

World Bank. (2021b). World Bank Open Data. https://data.worldbank.org/indicator/SH.MED.NUMW.P3?most_recent_value_desc=false.

World Bank. (2021c). World Bank Open Data. https://data.worldbank.org/indicator/SH.MED.BEDS.ZS?locations=LR.

World Bank. (2021d). Women, Business and the Law 2021. Washington, DC: World Bank. doi:10.1596/978-1-4648-1652-9. License: Creative Commons Attribution CC BY 3.0 IGO.

World Bank. (2021e). Liberia Country Climate Change Knowledge Portal. Vulnerability https://climateknowledgeportal.worldbank.org/country/liberia/vulnerability.

World Bank. (2021f). *Investing in Human Capital for a Resilient Recovery: The Role of Public Finance*. Human Capital Project Ministerial Conclave, April 2021. https://thedocs.worldbank.org/en/doc/d2f5c4bb65fca8b1f4ad9183637fb8c6-0140012021/original/Financing-Human-Capital-HCP-Ministerial-Conclave-April-2021.pdf.

World Bank, forthcoming. *Liberia Digital Skills Report*.

World Health Organization (WHO). (2009). Changing cultural and social norms that support violence.

World Health Organization (WHO). (2017a). Violence Info, Liberia. https://apps.who.int/violence-info/country/LR/.

World Health Organization (WHO). (2017b). Liberia Adopts Innovative Technology To Improve Timely Detection And Reporting of Suspected Acute Flaccid Paralysis Cases; https://www.afro.who.int/news/liberia-adopts-innovative-technology-improve-timely-detection-and-reporting-suspected-acute.

World Health Organization (WHO). (2018). Climate Change and Health Fact Sheet; https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health.

World Health Organization (WHO). (2019a). Global Spending on Health: A world in transition. https://www.who.int/health_financing/documents/health-expenditure-report-2019.pdf?ua=1

World Health Organization (WHO). (2019b). Sanitation Key Facts. https://www.who.int/news-room/fact-sheets/detail/sanitation.

World Health Organization (WHO). (2019c). WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation.

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