Policy Note on the Liberia Health Equity Fund (LHEF)

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1. Acknowledgments

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2. List of Acronyms

CHT	County Health Team
CSH	Collaborative Support for Health Program
EPHS	Essential Package of Health Services
EVD	Ebola Virus Disease
GDP	Gross Domestic Product
GGE	General governmental expenditures
GGHE	General governmental health expenditures
HSPF	Health Sector Pool Fund
IHP+	International Health Partnership
IMR	Infant Mortality Rate
JFMA	Joint Financial Management Assessment
JPCU	Joint Program Coordination Unit
LHEF	Liberia Health Equity Fund
L-LMIC	Low and Lower Middle-Income Country
MMR	Maternal Mortality Ratio
MOH	Ministry of Health
NASCCORP	National Social Security & Welfare Corporation
NHA	National Health Accounts
NHEA	National Health Equity Authority
OFM	Office of Financial Management
OOP	Out-of-Pocket Payment
PER	Public Expenditure Review
PFM	Public Financial Management
R4d	Result For Development
RAF	Resource Allocation Formula
RBHS	Rebuilding Basic Health Services
RDF	Revolving Drug Fund
RMNCAH	Reproductive Maternal Neonatal Child Adolescent Health
TA	Technical Assistance
UHC	Universal Health Coverage
U5MR	Under Five Mortality Rate
WB	World Bank
USAID	United States Agency for International Development
V.A.T	Value-Added Tax

3. Executive Summary

Background

This document provides a short situation analysis status of each health financing function and outlines options and a road map for the proposed Liberia Health Equity Fund (LHEF).

While Liberia made progress in health service delivery prior to the Ebola epidemic, substantial health challenges remain to reach Universal Health Coverage (UHC), particularly since the Ebola epidemics. Maternal mortality, at 1072 deaths for every 100,00 pregnancies (DHS, 2013), is among the highest in the world. Under-five mortality rates (U5MR) and infant mortality rates (IMR) both declined between 1986 and 2013: U5MR from 220 to 94 deaths per 1000 live births and IMR from 144 to 54 deaths per 1000 live births. Between 2000 and 2013, health indicators improved: measles immunization coverage increased from 52% to 74% and prevalence of stunting among children under-five declined from 39% (2007) to 32% (2013)[1]. Still, Liberia has some of the worst rates in the world in these health outcomes.

Despite remarkable strides in mobilizing domestic resources, health resources remain insufficient to reach UHC due to barriers to health services access. General governmental health expenditures (GGHE) as a percentage of GGE increased from 6.8% in 2000 to 12.7% in 2014 (WHO, 2014) and to 14.6% in 2017/18 (MOH, 2017). However, given the relative small size of the total government budget, the needs in the health sector remain significant[2], with the poorest population bearing the brunt: 15% of poor households encountered catastrophic health expenditures compared to 8% among the rich[3]. Outpatient services and over-the-counter payment for drugs are the main drivers of out of pocket (OOP) spending.

There are several issues around efficiency of public and external expenditures. First, curative care consumes 76 percent of THE (2014 NHA) while the top five causes of deaths could be addressed by preventive measures. Second, the budget execution is particularly low for non-salary expenditures, e.g., medicines due to inefficient management of essential medicines and slow procurement process (JFMA, 2016). Third, both public and donor resources are fragmented: only 54 percent of external funding is on-budget and mostly managed through separate donor project units in the MOH. Domestic funding flowing to county level is also fragmented with various grants flowing to various decentralized levels.

Allocation of public funds to counties do not reflect health-county needs or population, further perpetuating geographic disparities in health outcomes. There is a very weak relationship between the budget received by County Health Teams (CHT) and the number of facilities, with consequences on health outcomes. At the same time, allocation of public funding to counties does not reflect size of the population either and funding per capita ranges widely across counties ($0.83-$8.00) concluding that there may not be a logical explanation underpinning the flow of resources to counties from the MoH.

The Ministry of Health (MOH) started planning for the Liberia Health Equity Fund (LHEF) as a mechanism to raise sustainable revenue for the health sector and address health system challenges. In 2011, the MOH developed the National Health and Social Welfare Financing Policy and Plan 2011-

[1] LDHS 1986,2007,2013; Liberia MDG report 2008 and 2010; and World Bank HNP statistics database

[2] Per capita health expenditure is only $72 (current US dollars) which is below the $86 threshold necessary to provide a basic package of health services (High Level Task Force on Innovative International Financing for Health 2009 estimates)

[3] Catastrophic health expenditures are defined as 10% of total household consumptions. Source: 2014 Household Survey.

2021, highlighting social insurance plans to increase sustainable resource generation (MOH, 2011). In 2013, the MOH began planning for the LHEF, a concept modeled after Ghana's National Health Insurance Scheme. This study proposed to set up a National Health Equity Authority (NHEA), a pooling and purchasing agency. After the end of the Ebola epidemics in 2015, the MOH returned to the idea of the LHEF and started drafting a concept note (CN) articulating the LHEF as a multi-pronged health financing approach in 2016. In August 2017, the MOH organized a National Health Financing Conference to identify a road map for the LHEF and finalize the LHEF CN. Over the last year, the World Bank (WB) together with CSH/USAID have supported these processes and the articulation of the LHEF CN.

Policy Recommendations

Resource Mobilization

While the health sector should remain a priority for the GoL and benefit from an improvement in economic growth after 2018, this cannot be guaranteed. Therefore, improving efficiency seems to be the most promising option to add value for the health sector in the short-term. This will consist of focusing on implementing the recommendations of the Joint Financial Management Assessment, conducting efficiency studies on flows of funds and utilization patterns at the facility level and the recommendations of the workforce optimization study to improve workforce productivity.

A study on earmarking for health could inform the feasibility of that revenue generation option for the health sector in the mid to long term. It is advised to conduct a feasibility study on the short-term to assess the political and financial feasibility of earmarked taxes to the health sector. Liberia aims to implement the value-added tax (V.A.T) in 2019/2020. Hence, there may be an opportunity to earmark a portion of the V.A.T for health in long-term. Economic growth will certainly play an important force behind the success of earmarked taxes, should results from the feasibility study advise for that option. Implementing such reforms now with a limited economic growth rate may not be advisable.

Mechanisms to leverage private companies and remittances for increased investment in health could be explored to raise additional revenues to the health sector in the mid to long term. Remittances account for one third of the GDP in Liberia, one of the highest ratios in the world. The Government may consider conducting a study examining how remittances are used by households and if there are ways that the Government can nudge households to spend these resources in the health sector.

Pooling

Finalizing the design of the Joint Coordination Unit may address fragmentation of external revenue pooling and foster financial management capacity of the MOH, an incremental reform for the NHEA. The MOH JPCU aims to improve donor alignment with domestic resources and to support the MOH's priorities. Specifically, the JPCU aims to improve donor coordination; minimize fragmentation that results from parallel arrangements for implementing donor-financed projects; and achieve consolidated financial reporting and performance monitoring. Development aid for health (DAH) efficiency may also be achieved through the Reproductive, Maternal, Neonatal, Child and Adolescent Health (RMNCAH) Investment Case (IC) which aligns donors and governments around cost-effective interventions.

Given the small size of the formal sector in Liberia, it is advisable that the NHEA be largely tax-based. In a country like Liberia, where more than half of the population is poor and 85% of the population works in the informal economy, it is difficult to have a formal social health insurance system. In the long-term, Liberia's vision may be that the NHEA captures funding from: 1) compulsory pre-paid contributions from public and private sectors' employers and employees (plus possible co-payments); 2) pre-payments from the informal organized sector; 3) earmarked taxes and external funding subsidizing

the poor and vulnerable. In the short-term, the NHEA may capture revenues from donors and government revenues.

In the short-term, **the MOH needs to carry out an actuarial study to inform the feasibility of the NHEA to finance the Essential Package of Health Services (EPHS).** This assessment may clarify the role of existing pooling mechanisms (NASSCORP, private insurance) with respect to the NHEA. Note that one conclusion of this assessment may be that it is unnecessary for Liberia to have a separate pooling / strategic purchasing entity like the NHEA. The feasibility study may also need to show the cost of operating the NHEA. These estimates may play a role in determining the financial feasibility of a separate pooling and purchasing agency versus utilizing existing organizational arrangements.

Purchasing

The MOH needs to begin applying a resource allocation formula (RAF) for CHT grants to yield a more equitable and impactful health system at decentralized level. The CHT RAF may guide external funding allocations for the CHT level in the mid-term and address both domestic and external funding fragmentation. In the long-term, the RAF may apply to a more significant proportion of CHTs' budgets, including salary. In the mid to long-term, the RAF is the basis for establishing prospective capitated payment.

Following best practices, health facilities may be funded on a capitation basis to contain costs and push for utilization of preventive services, which could improve efficiency and health outcomes if implemented well. The NHEA would pay health facilities via a capitated payment through CHTs and possibly on an output basis for certain prioritized services through RBF. The MOH would need to conduct an assessment to examine methodologies to estimate PHC facilities' catchment population and distribution of CHT budgets (through the RBF envelop) across health facilities, based on their catchment populations and adjustment criteria (geography, morbidity). This assessment would be instrumental for developing the NHEA, as health insurance holders will be linked to their catchment population's health facilities for a fixed time period.

While the MOH is to implement various PBF contracting in- and out approaches in the short-term, In the mid- to long-term, the MoH may be in a position to construct a strategic purchasing strategy that will (a) be built on performance/output based provider payment mechanisms; (b) incorporates lessons learned from current PBF initiatives (c) contracts-out services to private/ faith based health facilities; (d) includes cost-containment measures; (e) is planned in the MOH budget to ensure sustainability.

PBF may help foster allocative efficiency and prepare the health system for a national health insurance system. The CHT PBF envelop to is based on population and geographical considerations, aligned with the resource allocation formula applied to CHTs. While contracting-in is only one part of the purchasing strategy, this will be a vehicle to expand resource to the Primary Health Care level since most services incentivized by PBF focus on preventive care, which will also be the core EPHS services funded by the NHEA. Additionally, PBF strengthens health systems by creating autonomy and better governance at the health facility level, improving health facilities' financial management systems and CHTs' information systems, all necessary functions to run a health insurance fund.

To ensure the poor and the vulnerable are subsidized, in the short-term, reviewing the effectiveness of the Free Health Care Policy is crucial. The objective of the LHEF is to ensure that the vulnerable (above the poverty rate) and poor households (below the poverty rate) have access to a quality essential package of health services (EPHS). In the short term this requires evaluating the current Free Health Care Policy and proposing options exempting the poor and vulnerable population groups from payment.

Service Delivery

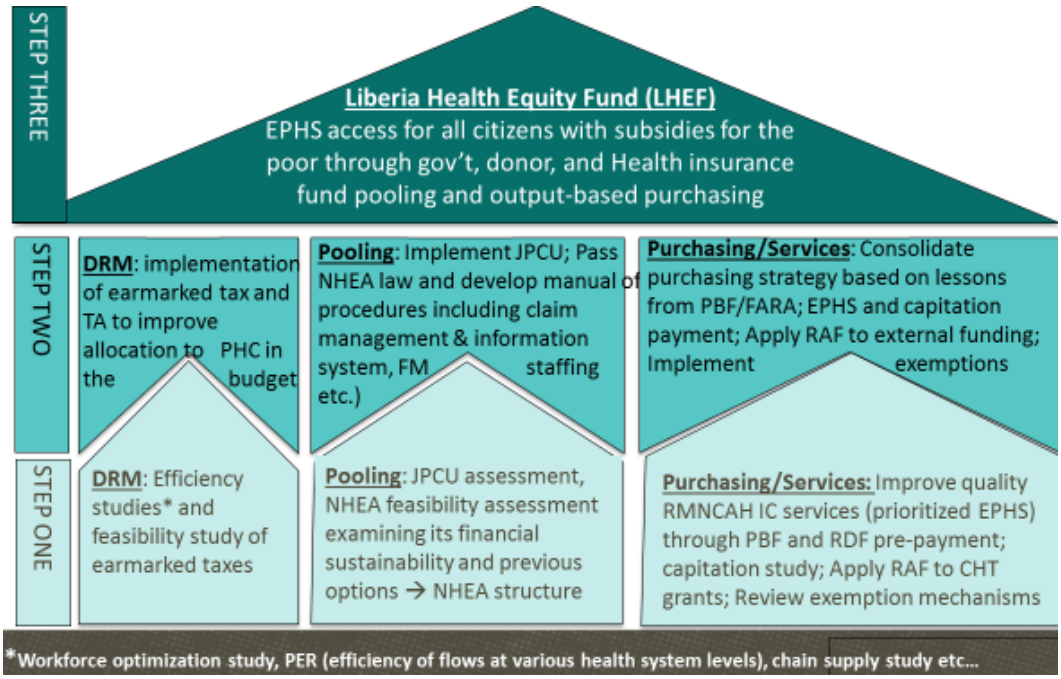
Setting up a national health insurance system requires the MOH to improve health service quality, including improving human resource, drug availability and re-prioritizing the EPHS. While a health insurance scheme may help alleviate demand side barriers to accessing health services, it is important to address supply side barriers as well. Consumer preference market research demonstrates that any willingness of users to make pre-paid contributions is contingent on the availability of services: hence it will be important that the MOH adopt an effective strategy to manage the health workforce and improve drug availability and quality through ongoing supply chain reforms. The MOH may also need to re-prioritize the EPHS using the prioritized list of services included in the RMCAH investment case as well as developing tiered service packages per contributing group, to inform services provided by the NHEA.

Given mixed evidence of the impact of the revolving drug fund (RDF) on drug access, re-introducing this point-of-services payment mechanism to improve drug availability may be unequitable. There is limited evidence on the impact of RDFs on drug availability. Furthermore, piloting the RDF with a point-of-service payment approach may foster unequal access to health services and is not advised. The pre-war RDF in Liberia was implemented from 1985 to 1989, during which the Bamako Initiative promoted user fees to finance health services and improve quality of care. In recent years, several African nations have eliminated fees because research has showed that user fees impose a barrier to health services, particularly for the poor. Finally, the Free Health Care Policy precludes the utilization of user fees, making the implementation of the point-of-service version of the RDF not feasible.

However, the prepayment version of the RDF may help prepare the health system for the NHEA. The "pre-payment" phase of the RDF could create a voluntary risk pool for essential medicines, which may be an opportunity to inform the NHEA design in terms of contributory and pooling mechanisms at the community level as well as PFM capacities at the facility level. It is also preferable to pilot the RDF pre-payment system as patients showed more support for that option (CSH, 2017).

Figure 1. reflects the incremental reforms needed in the short to long-term to reach the multi-pronged LHEF Health Financing Strategy. The feasibility of the NHEA is one piece of the LHEF and, as discussed earlier, may not require a separate entity but instead could be incorporated within the MOH.

Figure 1. LHEF step-wise approach


STEP THREE
Liberia Health Equity Fund (LHEF)
EPHS access for all citizens with subsidies for the poor through gov't, donor, and Health insurance fund pooling and output-based purchasing
STEP TWO
DRM: implementation of earmarked tax and TA to improve allocation to PHC in the budget
Pooling: Implement JPCU; Pass NHEA law and develop manual of procedures including claim management & information system, FM staffing etc.)
Purchasing/Services: Consolidate purchasing strategy based on lessons from PBF/FARA; EPHS and capitation payment; Apply RAF to external funding; Implement exemptions
STEP ONE
DRM: Efficiency studies* and feasibility study of earmarked taxes
Pooling: JPCU assessment, NHEA feasibility assessment examining its financial sustainability and previous options → NHEA structure
Purchasing/Services: Improve quality RMNCAH IC services (prioritized EPHS) through PBF and RDF pre-payment; capitation study; Apply RAF to CHT grants; Review exemption mechanisms
*Workforce optimization study, PER (efficiency of flows at various health system levels), chain supply study etc…

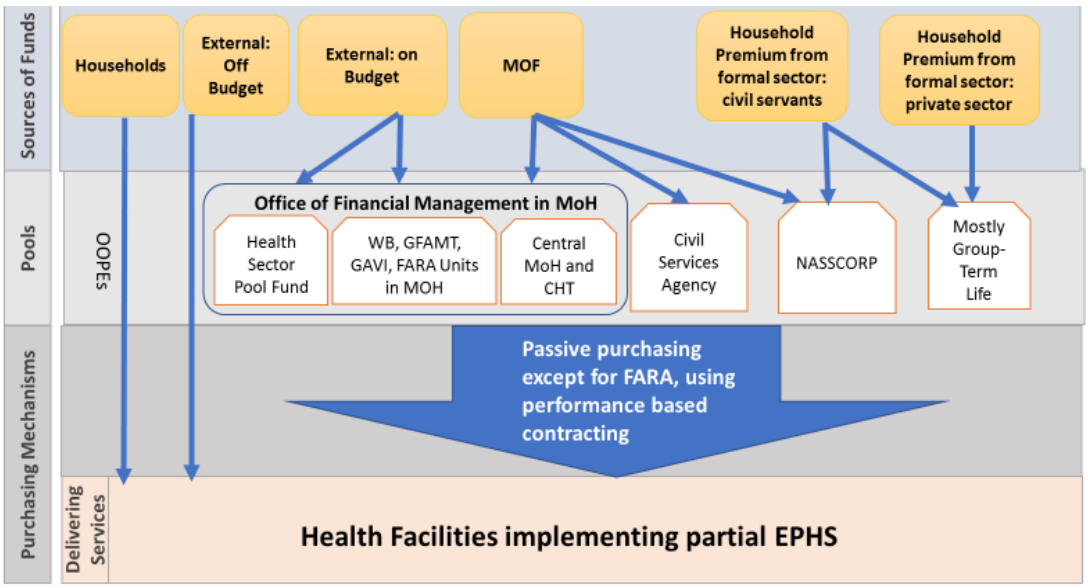
4. Introduction

Liberia made progress in health service delivery prior to the Ebola epidemic, but substantial health challenges remain to reach Universal Health Coverage (UHC). Maternal mortality, at 1072 deaths for every 100,000 pregnancies (DHS, 2013), is among the highest in the world. Under-five mortality rates (U5MR) and infant mortality rates (IMR) both declined between 1986 and 2013: U5MR from 220 to 94 deaths per 1000 live births and IMR from 144 to 54 deaths per 1000 live births. Between 2000 and 2013, health and service delivery indicators improved: measles immunization coverage increased from 52% to 74.2% and prevalence of stunting among children under-five declined from 39% (2007) to 32% (2013). Still, Liberia has some of the worst rates in the world in these health outcomes.

The 2014 Ebola Virus Disease (EVD) outbreak reversed some of the previous gains in health service delivery and further constrained the health system's functionality. Liberia's EVD crisis from 2014 to 2016 threatened some of the earlier service delivery improvements, altogether reversing them in some cases: deliveries by skilled birth attendants fell by 7 percent, measles coverage declined by 21 percent, and health-facility utilization rates plummeted by 40 percent. Liberia lost 10 percent of doctors and 8 percent of nurses and midwives to Ebola, just over 8 percent of the nation's healthcare workforce.

In Liberia, health financing is a nascent health system function. While sources of funds are multiple, pooling is fragmented and purchasing of health services remain mostly passive (Figure 2). The health financing system is characterized by several sources of funding coming from external funding (39%), households (42%), firms (2%) and government (16%) (NHA, 2014). 46% of external funding is channeled off-budget. Liberia's health financing pooling appears fragmented: off-budget funding directly flows to health facilities, on-budget and domestic funding flows to both county and health facilities but does not necessarily cover salaries, taken care of by the Civil Services Agency. Health services are purchased passively: the MOH allocates a budget envelope to county health teams (CHT) through input-based line item budget regardless of the quality of health services. However, the MOH has been piloting a strategic purchasing approach, i.e., performance based contracting (PBC) since 2011, in which the MoH contracts out delivery of primary health services to Non-Governmental Organizations (NGO) or CHT.

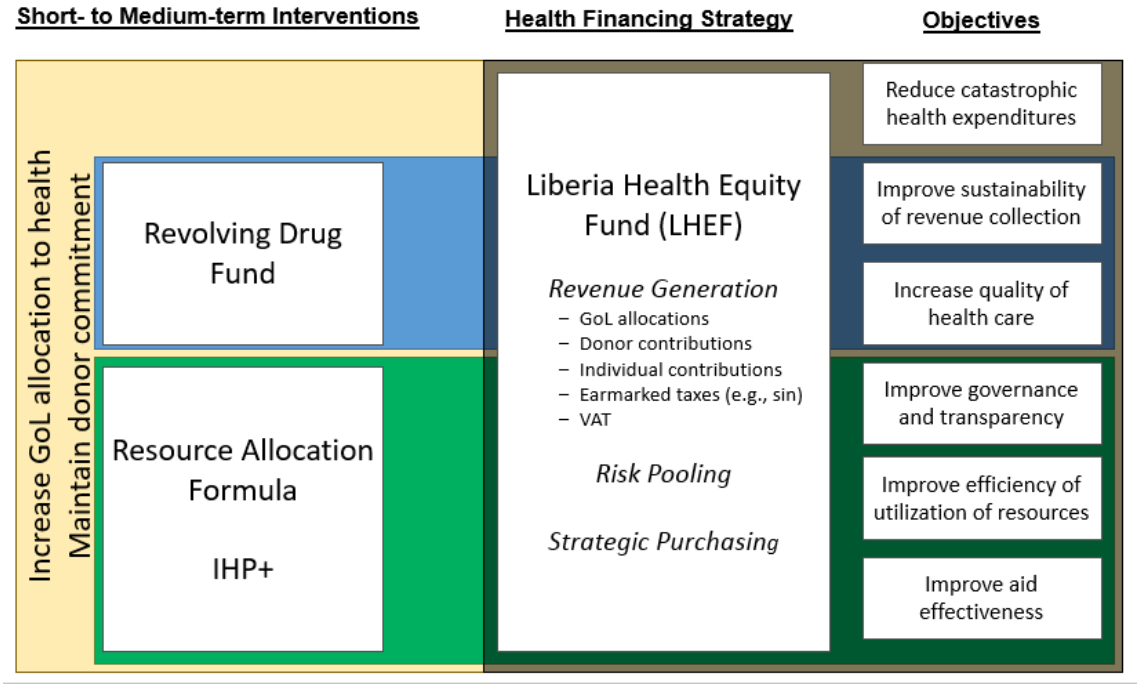
Figure 2. Overview of Health Financing Functions in Liberia



In 2011, the MOH started planning for a national health insurance system - which is envisaged to become the Liberia Health Equity Fund (LHEF)- a mechanism to raise sustainable revenue for the health sector and address health system challenges. In 2011, the MOH developed the National Health and Social Welfare Financing Policy and Plan 2011-2021, highlighting pilots of social insurance plans (p.12) to increase sustainable resource generation (MOH, 2011, p.11). However, the idea of a national health insurance system became sidelined after a 2011 assessment underlining structural challenges for such a system in Liberia (OPM, 2011). The MOH reopened the discussion in 2013 and began planning for the creation of the LHEF, a concept modeled closely after Ghana's National Health Insurance Scheme**.** This study proposed to set up a National Health Equity Authority (NHEA), a pooling and purchasing agency. By end of 2013, because of concerns about the governance and the financial management of the LHEF, the government decided to improve the LHEF's planning and design while developing a more evidence-based and equitable resource allocation formula (USAID/RBHS, October 2014).

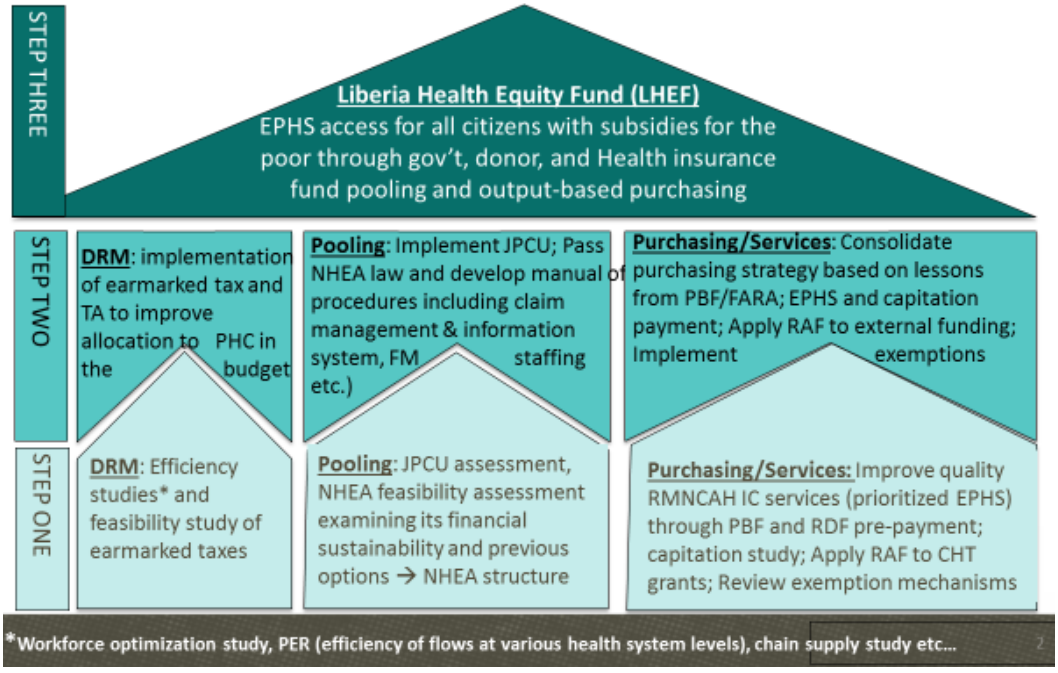
After Ebola, the LHEF was endorsed as a multi-pronged health financing approach and a vehicle toward UHC (Figure 3). The LHEF design and resource allocation formula were suspended when the EVD outbreak emerged in 2014. As EVD waned in 2015, the MOH returned to the idea of the LHEF. In 2016, the Ministry of Health started drafting a concept note articulating the LHEF as a multi-pronged health financing approach to UHC (Figure 1). This draft and unfinished document emphasized three major LHEF reforms in the short to mid-term as a path towards UHC: 1) Developing a resource allocation formula; 2) Improving donor coordination through International Health Partnership (IHP+) and; 3) Developing a revolving drug fund (RDF) (Figure 1). In 2016, the presidentially-convened Cabinet Committee on Health Financing endorsed this multi-pronged health financing approach. In August 2017, the MOH organized a National Health Financing Conference to identify a road map to establish the LHEF and finalize the concept note started in 2016. Over the last year, the World Bank (WB) together with CSH/USAID have supported these processes and the articulation of the LHEF Policy Note.

Figure 3. 2016 Overview of LHEF reforms as proposed by MOH



The LHEF implementation would require a series of "stepping stones" reforms (Figure 4). Most countries' pathways to UHC feature small and large incremental steps— "stepping stones" that enable subsequent reform steps toward fulfillment of long-term goals. International experience has shown that these reforms must coincide with ongoing system strengthening (Blanchet, Nathan, Amanda Folsom, and Benjamin Picillo, , 2017). To progress to the LHEF, the government needs to implement incremental reforms which will require some critical policy changes. Figure 2 summarizes the sequencing of stepping-stone reforms in health financing and service delivery described with greater detail in Section 2 of this policy note.

Figure 4. 2017 LHEF step-wise approach[4]



[4] Note: JPCU: Joint Project Coordination Unit; PBF: Performance Based Financing; FARA: Fixed Amount Reimbursed Agreement; TA: Technical Assistance; RMNCAH: Reproductive Maternal Neonatal Child and Adolescent Health; EPHS: Essential Package of Health Services; FM: Financial Management; NHEA: National Health Equity Agency, the tentatively pooling and purchasing agency depending on the NHEA feasibility assessment done on the short-term.

5. Liberia Health Equity Fund

5.1. Resource Mobilization

Health financing, a key health system function, focuses on mobilizing and pooling resources for the citizens' health and purchasing quality health services for all citizens. Hence, health financing indirectly influences the three goals associated with UHC (utilization relative to needs, quality and financial protection). For instance, governments can allocate a greater share of public revenues to health to increase the size of the prepaid funding pool, thereby enabling greater attainment of financial protection and utilization goals (Kutzin, 2013). In the 2010 World Health Report, three broad health financing strategies were summarized. "More money for health" or raising more funds was one goal. There are five ways to generate resources for the health sector (Heller, 2015): 1) Generate revenue through the macro-economic context; 2) Prioritize the health sector; 3) Earmarking for health; 4) Efficiency gains; 5) External funding. The following section focuses on these five instruments as well as on the role of the private sector to expand the fiscal space for health in the short to long term.

5.1.1. Situational Analysis

Due to the EVD outbreak, revenue growth may only resume after 2018, with a potential positive effect on the health sector's fiscal space. Prior to the EVD crisis, Liberia's economy grew at a higher rate in comparison to average growth across sub-Saharan African countries. The economy grew at an annual average rate of up to 7.8 percent between 2006 and 2013 before it plunged to a rate of 0.7 percent and 0.9 percent in 2014 and 2015, respectively, following the EVD crisis. The economy started rebounding in 2016 and is expected to grow at an annual rate of nearly 7 percent through 2020, which is favorable for increased revenue. The macro-economic context may enhance the fiscal space available in health when Government of Liberia's revenues pick up after 2018 (IMF, 2017).

Liberia raises the same level of public revenues as Low and Lower Middle Income Countries (L-LMICs), thus any additional increase would not result in substantive gains for the health sector. In 2014, the country's general governmental expenditure ratio (GGE/GDP) was 26.6%, very close to the L-LMICs median of 28.5%. By raising the GGE/GDP ratio to the median 'overnight', gains would be very small[5]) for all sectors, including for the health sector.

Despite remarkable strides in mobilizing domestic resources, health resources remain insufficient to reach UHC. General governmental health expenditures (GGHE) as a percentage of GGE increased from 6.8% in 2000 to 12.7% in 2014 (WHO, 2014) and to 14.6% in 2017/18 (MOH, 2017). Despite the increased prioritization of health, per capita health expenditure is only at $72 (current US dollars) which is below the $86 threshold necessary to provide a basic package of health services[6]. One of the reasons behind limited revenues for health, despite a reasonable GGE/GDP ratio and fair prioritization, is the country's low GDP. Liberia's GDP is one of the lowest in the world, at $US455 per capita (in current prices), hence the size of the overall pie and, consequently the health sector's fiscal space, remain low in absolute terms.

[5] + $0.8 per capita using 2014 as a reference year, in current prices

6 High Level Task Force on Innovative International Financing for Health 2009 estimates

Public resources are imbalanced in terms of curative and preventive measures. Curative care consumes 76% of THE (2014 NHA) while the top five causes of deaths could be addressed by preventive measures. Expenditures on prevention and public health programs have been reduced over time: shifting from 21.7% of THE in FY 2007/08 to 10.22% in FY2013/14 while curative care shifted from 54.3% in 2007/08 to 76.2% in 2013/14. Further analysis need to be conducted to understand the reasons behind that dramatic shift toward curative care.

Productivity remains low at health facility level impeding efficiency. Productivity remains low in some tertiary hospitals while it captures a considerable share of the health budget. Some tertiary hospitals (outside of Greater Monrovia) have a very low bed occupancy rate with only 10% of the total number of beds being occupied. Fewer information on productivity is available at PHC and secondary care level.

Issues with Public Financial Management (PFM) inhibit efficiency of public expenditure. At macro-level, the Ministry of Finance, Development and Planning (MoFDP) does not make the majority of the budget available until the last quarter, affecting the MOH's budget execution. Budget execution of the overall health sector was 89% for FY2015-16 and 71% for FY2016-2017, a decrease attributable to the low budget execution of the non-salary-budget line which was 38% in FY2016/17 compared to 78% in FY2015/16. Inefficient coordination of essential medicines and supplies at MOH[7] have resulted in the expiration and subsequent destruction of US$9 million worth of essential drugs (JFMA, 2016), shedding the light on low budget execution of non-salary budget. Conversely, Human Resources has a low budget envelop (40-50% of total health budget) and a high budget execution (101% in 2015/2016 and 108% in 2016-2017). The MOH has set a target of employing 15,000 personnel by 2021. In 2016, MOH had employed 10,406.

Public Financial Management weaknesses hinder budget execution at county level. The counties' needs for the next fiscal year are not well-represented in the MOH's procurement plan impacting adversely on service delivery. The time-consuming procurement process for the already very scarce human resources results in delays in planned activities[8]. Regarding fiscal decentralization, some hospitals and facilities are directly funded by MFDP without going through MOH. Hence, full knowledge of the health budget per county is not known by CHT which may contribute to low budget-execution.

External funding as share of THE has been higher than that of L-LMIC over the last decade (GHED, 2014), but its future contribution is uncertain. The share of external funds (Development Assistance for Health, DAH) in THE experienced an important increase between 2000 and 2014. In 2014, Liberia received on average $22.7 per capita in DAH, which represented 49% of THE (WHO, 2014). This is unusually large for the group of L-LMICs which on average, received $4.3 per capita (in current prices). In real terms, the DAH per capita has increased thirty times between 2000 and 2014, from the very low $0.6 to $17.9 (constant in USD 2010). The health sector captured higher amount of external funding because of the Ebola epidemic: external resource accounted for $ 124.9 million in 2015/16 and $ 261.0 million in 2016/17 but is expected to decrease to $ 148.0 and $ 96.6 million (MOH estimates, 2017). However, these estimates may not be accurate since they do not necessarily capture all off-budget flows and several donors have short-cycle budget, limiting the availability of information on their financial contributions beyond one or two years.

[7] Liberia's supply chain management activities are carried out by three departments at MOH: Pharmacy Division, National Drug Service and the Supply Chain Management Unit (SCMU). See page 24 of the JFMA for more details.
[8] For example, if a county wants to procure items above US$10,000, someone from the CHT has to physically come to Monrovia for approval by the Procurement Committee (JFMA, 2016).

5.1.2. Policy Options

While the health sector may benefit from an improvement in the economic growth after 2018, this cannot be guaranteed. Therefore, improving efficiency seems to be the most promising option to free revenues for the health sector in the short-term. The efficiency agenda may be implemented through the following options:

1) An efficiency study, consisting of a public expenditure review (PER) assessing the use of available resources at county level and analyze how efficiently and effectively they are utilized at county and health facility level to provide PHC services to the population.

2) A productivity analysis at PHC and secondary care level assessing the utilization patterns of health facilities (e.g., number of full vaccinated children per 10,000 inhabitants) and examining the drivers of low and high performing health facilities. This will also build on the workforce optimization study currently conducted by CHAI.

3) Implement recommendations from the Joint Financial Management Assessment (JFMA) Report to improve budget allocation and health budget execution at both central and decentralized level[9]. Improving planning and budgeting is instrumental as this is the starting point for the resource mobilization agenda. More domestic resources cannot be mobilized if credible planning and budgeting process are non-existent. The JFMA also proposes recommendations to improve procurement of goods and services, supply chain management of drugs.

A study on earmarking for health could inform the feasibility of this revenue generation option for the health sector in the mid to long term. The success of earmarking for health is very country-specific. In some cases, earmarking is a tool to advance and sustain a national health priority. However, in other countries earmarking has not generated sufficient revenue for the health sector[10]. Liberia has received technical assistance to improve the overall tax administration system[11], with the aim of implementing the value-added tax (V.A.T) in 2019/2020. Hence, there may be an opportunity to earmark a portion of the V.A.T for health in the mid to long-term, once the V.A.T is in place. Another option is to earmark a portion of the revenues from tobacco and alcohol taxes to address negative externalities. A recent household survey highlighting that households were willing to see more linkages between their taxes and the basic services they receive may back up earmarking for health. Nevertheless, a feasibility study needs to be conducted to model the incremental revenue generated for the health sector. Economic growth will certainly be an important force behind the success of earmarked taxes. Hence, implementing such reforms now with a limited economic growth rate may not be advisable. The feasibility study will need to examine management options based on best practices[12]. The feasibility

[9] Recommendations to improve budget execution include the following: Re-program unutilized funds in allocation to a different line item by coordinating with MFDP before they allocate funds to particular line items every quarter. Encourage MoH departments to use GoL funds for purchase of goods and services instead of donor funding. Donor funding is crowding out GoL funds.

[10] World Health Organization; Result For Development. Health Financing Working Paper No.5. Earmarking for Health. Cheryl Cashin, Susan Sparkes, Danielle Bloom.

[11] USAID is supporting a tax administration reform project supporting the MFDP in improving tax collection through audit reforms, improved computer systems and simplification of excise taxes

[12] Indeed, it is important to avoid implementing an earmarking scheme without using the funds, as in the cases of the Philippines and Botswana "*Even in the Philippines, where incremental revenues from tobacco and alcohol tax revenues are earmarked to finance UHC, the funds are not automatically released to the Department of Health. In Botswana, earmarked*

study also needs to examine earmarking's political feasibility among a variety of stakeholders as well as the policy and legal changes necessary for implementation.

Mechanisms to leverage private companies and remittances for increased investment in health could be explored to raise additional revenues to the health sector in the mid to long term. Remittances[13] account for one third of the GDP (31.25 percent) in Liberia, one of the highest ratios in the world. Only two more countries in Africa have a high remittance/GDP ratio which are Zimbabwe and Ghana with 14 and 13 percent respectively. [14] The Government may consider conducting a study examining how remittances are currently used by households and if there are ways that the Government can nudge households to spend these resources in a more productive way. Could remittances that are currently consumed be directed to pre-payment mechanisms for health? Or would Liberians abroad be interested in diaspora bonds to fund investments in the health sector? As a follow up to the National Health Financing Forum in August 2017[15] it would also be important to explore if private companies, through e.g. Corporate Social Responsibility program or sponsoring programs, could be leveraged to increase resources to the health sector. There may be e.g. private companies that are interested to providing health care to their employees and thereby free up resources in the public sector to unemployed Liberians who do not have access to health care through their work.

Table 1. Step-wise approach for resource mobilization

	Short-Term Activities	Mid-Term Activities	Long-Term Activities
Resource Mobilization	1. **DRM:** continue ensuring health remains a priority in the GoL budget 2. **Efficiency:** 1) Public expenditure review; 2) Drivers of health service utilization (efficiency study); 3) implement recommendations of the workforce optimization study to improve workforce productivity; 4) Implement JFMA recommendations; 3. **Earmarked taxes:** Political and financial feasibility study of earmarked taxes 4. **Private sector:** explore resources that the private	1. **DRM**: Update fiscal space analysis and assess most promising resource mobilization paths 2. **Efficiency**: Financial management TA to improve the allocation to PHC in the budget, potentially by institutionalizing PBF onto the MOH budget 3. **Earmarked Taxes**: Implement earmarked taxes for health, should feasibility study be favorable 4. **Private sector**: Implement recommendation from the	1. **DRM**: monitor GoL allocation to health overtime 2. **Efficiency:** Continue efficiency analysis to free additional resources **3. Earmarked taxes**: Monitor implementation of earmarked taxes, should this option be implemented

tobacco funds do not always reach the health sector because of PFM issues; there have been instances where funds have been left in an account for more than a year because no mechanism was available to channel them to the Ministry of Health". World Health Organization; Result For Development. Health Financing Working Paper No.5. Earmarking for Health. Cheryl Cashin, Susan Sparkes, Danielle Bloom, p.17.

[13] Remittances are classified as current private transfers from migrant workers' resident in the host country for more than a year, irrespective of their immigration status, to recipients in their country of origin. Migrants' transfers are defined as the net worth of migrants who are expected to remain in the host country for more than one year that is transferred from one country to another at the time of migration. Compensation of employees is the income of migrants who have lived in the host country for less than a year.

[14] World Bank, Remittance Inflows to GDP for Liberia [DDOI11LRA156NWDB], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/DDOI11LRA156NWDB, November 25, 2017.

[15] Some participants at the 2017 National Health Financing conference suggested to examine the potential of the private sector in financing the health delivery system.

	could leverage to finance UHC (e.g., remittances and corporate sector)	private sector assessment.	

Note: efficiency studies may be expanded. There is very little information on supply chain and it may be worth examining the efficiency of the supply chain to assess whether saving could be made in that area. For instance, in Uganda, an efficiency analysis in the drug area underlines that a $40 m saving could be made by using more appropriate procurement pricing of ARVs (Ngwaru, 2017). The GFMTA is planning to conduct an efficiency study of HIV, Malaria and TB programs and may be looking at such issues.

5.2. Resource Pooling

The Pooling function is the second key health financing strategy to foster UHC. Pooling consists of increasing the level of compulsory prepaid revenues for health and reducing fragmentation in pooling to expand the redistributive capacity of prepaid funds (WHO, 2010). The following section provides a situational analysis of the pooling mechanisms in Liberia and proposes policy options to address some of the challenges encountered in this area in the short, medium and long terms.

5.2.1. Situational Analysis

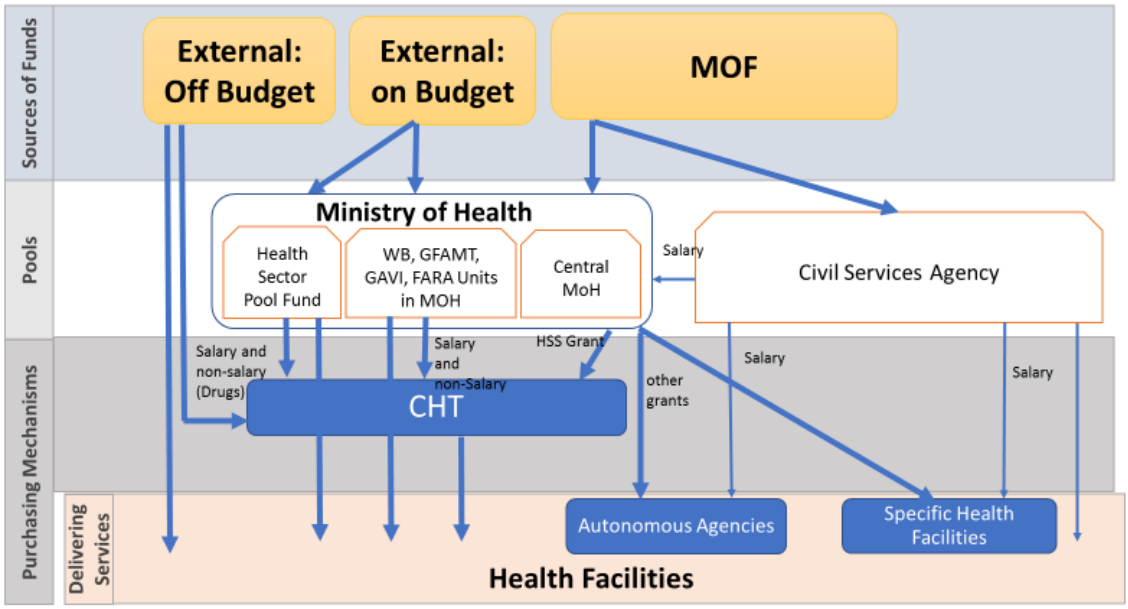
External and governmental funding are very fragmented (Figures 5).

- **While the level of on-budget external funding has improved over time, 46% of external funding remains off-budget and outside the control of the Ministry of Finance**. In some cases, this funding is on-plan but in other cases, off-budget funding may be allocated to areas outside the investment plan and channeled directly to health facilities with limited knowledge and control of the MOH. The mismatch between donor funding and key MOH investment areas illustrates the limited alignment of donors with Liberia's key investment: there is a disproportionately high level of funding for health system strengthening components (Quality of care, HMIS) and disproportionately low level of funding in HR and infrastructure (Resource Mapping, 2016). On-budget funding covers both non-salary and salary expenditures. Off-budget resources also flow to CHT teams and health facilities, but are not necessarily documented.
- **Currently the MOH manages two types of external on-budget funding mechanisms: on-budget funding not including in the Health Sector Pool Fund (HSPF) and the HSPF**. The size of the HSPF has decreased over time: In 2016/17, the HSPF accounted for 0.3 percent of total external funding in the health sector and 0.5 percent of on-budget funding in the health sector vs 3.4 and 5.7 percent in 2015/16 respectively. Most on-budget funding remains managed by separate project units within the MOH, contributing to increase transaction costs.
- **Domestic funding is also fragmented**. The MOFDP allocates three types of funding to the MOH, flowing to decentralized level: 1) Direct grants going to specific health facilities/hospitals; 2) Health system grants for CHTs including non-salary expenditures[16]; 3) Specific grants for autonomous agencies situated in different counties. These three types of grants exclude salary

[16] The main types of non-salary expenditure categories are (i) supplies and consumables (goods and services); (ii) transfers and subsidies; and (iii) capital items.

payments. The MOFDP allocates salary budgets to the Civil Service Agency, remunerating civil servants at all levels of the health system (See Figure 3).

Figure 5. Domestic and External Resource Allocation Flows



The health insurance system is nascent but very fragmented. There are three main contributory schemes: 1) Civil servants are insured through the National Social Security and Welfare Corporation (NASSCORP)[17] and the Group-Term Life, Accident and Medical Scheme, which is operated by private insurance companies in Liberia. Police, Army and Entry Port staff are also insured by Group-Term Life (with the Medicare Insurance of Liberia-MIL); 2) The second largest formal employer is the concessionaire sector, covering rubber, palm oil, mining and forestry and accounts for approximately 30,000 employees (OPM, 2013). Concessionaire employees (excluding forestry in most cases) receive healthcare for themselves and a defined set of beneficiaries as mandated under the Concessionaire's agreement with the GoL, which is primarily delivered in facilities owned and managed by concessionaires; 3) Other key formal employment sectors include banking, telecom and construction. The Ministry of Labor estimates there are 22,000 people employed by private sector organizations employing at least 10 workers each. A number of larger private companies in these sectors provide health insurance for their employees to cover benefits beyond the EPHS. Overall most insurance holders purchase inpatient services and none purchase preventive care (OPM, 2011).

A 2011 health insurance assessment concluded by Oxford Policy Management (OPM) that Liberia was not ready to move towards a health insurance system. A Liberia health insurance feasibility assessment highlighted technical gaps, e.g., lack of a quality provider network, low insurance administrative capacity

[17] The National Social Security and Welfare Corporation (NASSCORP) is the administrator and collector of social security funds covering 68,000 people (40,000 public sector and 28,000 private sector). It administers three schemes, the last of which is currently inactive: 1) the Employment Injury Scheme (EIS); 2) the National Pension Scheme (NPS); and, 3) the Welfare Scheme (WS).

and no organization present to manage a potential social health insurance (SHI) fund. The report also conducted a stakeholder analysis pointing out political gaps with varied support for reform among key stakeholders. The study also underlined financial gaps such as low levels of formal employment and limited financing capacity for SHI. Social gaps were another challenge the study uncovered: there were low levels of insurance reform understanding, leading to low consensus on reforms. Finally, the report suggested the need to conduct actuarial modelling to understand future demographic, economic and health consumption trends and to come up with a reasonable benefit package.

A 2013 LHEF feasibility study recommended a phased approach for LHEF implementation, focusing on establishing the National Health Equity Authority (NHEA) as the LHEF purchasing agent (PA). This report suggested two stages to establish the PA: 1) *an Incubation Stage:* The NHEA would be a semi-autonomous entity attached to the MoH for a period of two years and would work with both MoH and MoFDP to establish the central pool fund to implement the LHEF. During this stage, nine counties would be piloted (3 in first and 6 in second year); 2) *the Maturity Stage*: After two years, the NHEA would become a functional autonomous entity with a governing board appointed by the President of the Republic of Liberia. The report proposed the following recommendations: 1) the enactment of the LHEF act, including the legal framework of the NHEA; 2) a benefit package, initially focusing on primary care services; 3) capitation as the LHEF's likely provider payment mechanisms as well as PBF as a purchasing strategy.

Some health service users seem to be somewhat receptive to the notion of contributing funds to health insurance schemes, albeit the sample size of the study was small. Consumer preference market research, conducted in 5 counties, found that most respondents (82%) favored some form of insurance and pre-payment schemes, given that the latter would allow for improvements from the status quo in receiving health services[18]**.** However, the sample size of this study was limited. Additionally, there are no examples of high voluntary health insurance uptake in sub-Saharan African, hence the conclusions of this study, which is not nationally representative, should be interpreted with caution.

5.2.2. Policy Options

The Ministry of Health needs to finalize the design of the Joint Project Coordination Unit (JPCU) to improve the governance and pooling of government and donor funding. The MOH JPCU aims to improve alignment of donor support with the MOH's priorities and domestic resources; improving donor coordination; minimizing fragmentation that results from parallel arrangements for implementing donor-financed projects; and achieving consolidated financial reporting and performance monitoring. Its implementation will improve alignment of donor funding with the investment plan and the Global Financing Facility Reproductive and Maternal, Neonatal, Child and Adolescent Health (RMNCAH) Investment Case[19], diminish various duplications and free additional resources for the health sector.

- **In the mid-term to long-term**, the objective of the JPCU, following the IHP+ Compact is to strengthen alignment and coordination between the GoL and donors by pooling resources

[18] Health Financing in Liberia: Consumer Preference Market Research, USAID Collaborative Support for Health Program, 2017
[19] The RMNCAH investment case (IC), endorsed in 2016 by the MOH, is a prioritized version of the Investment Plan for Building a Resilient Health System (2015-2021) focusing on counties with the worse socio-economic and health indicators. The government as well as donors committed to fund and implement the priorities stated in the RMNCAH IC.

through the HSPF, or committing more on-budget resources or channeling project funds through MoH (IHP+ Compact, 2016). Ideally the MOH could pool virtually all on-budget funding and track more off-budget funding through implementation of a yearly resource mapping exercise.

- **To get there, in the short-term to mid-term**, IHP+ will help the MOH develop the JPCU's functions and organizational structure. The Office for Financial Management (OFM) may continue to manage an increasing share of on-budget funding which would contribute to strengthen financial management capacity of the Ministry of Health. The RMNCAH Investment Case, endorsed in 2016, may also contribute to aligning more donor funding to key MOH priorities. In the long-term, external funding managed by OFM may be transferred to the National Health Equity Authority (NHEA), the pooling and purchasing entity of the multi-pronged LHEF strategy named in the 2013 LHEF assessment. Some of OFM's best practices in financial management (JFMA, 2016) could be applied to NHEA fund management. Depending on the NHEA feasibility study, donor funding managed by OFM may not be transferred to a separate pooling and purchasing agency (NHEA) if the outcome of the NHEA feasibility study is that the MOH can carry out these functions and a separate entity is not needed.

Building on the 2013 LHEF feasibility study, the national health insurance system may be a combination of a tax-based and contributory system. The long-term vision of the MOH is that the NHEA pools funds from GoL, donors, and health insurances to provide an essential package of health services (EPHS) to all Liberian, including the poor and vulnerable. In a country like Liberia in which more than half of the population is poor and 85% of the population works in the informal economy, it is difficult to have a formal social health insurance system. Most countries have mixed systems with a combination of tax-based revenue and social health insurance contributions from the formal sector or organized informal sector. For instance, in Ghana, the National Health Insurance Scheme (NHIS) is financed primarily by tax revenue. The NHI levy provides 74 percent of NHIS revenue, Social Security and National Insurance Trust (SSNIT) deductions comprise another 20 percent, and premium payments provide just 3 percent (WB, 2017). In the long-term, Liberia's vision may be that the NHEA captures funding from: 1) compulsory pre-paid contributions from public and private sectors' employers and employees (plus possible co-payments); 2) pre-payments from the informal organized sector; 3) earmarked taxes and external funding subsidizing the poor and vulnerable.

In the short-term, **the MOH needs to carry out an actuarial study to inform the type of EPHS services that can be covered by the NHEA and a costing study of running a separate pooling and purchasing agency like the NHEA**. An actuarial study would examine the cost of the NHEA program which may depend on the size and composition of the covered population, the benefit package (EPHS), cost sharing arrangements, the supply of health care providers, and the provider payment mechanisms**.** This study will forecast multi-year revenues and outgoing healthcare claim costs expected to be paid by the NHEA. This actuarial study may include a costing exercise of the EPHS to set up various NHEA coverage options[20]**.** This assessment may clarify the role of existing pooling mechanisms (NASSCORP, private insurance) with respect to the NHEA too and it is likely that this actuarial study would examine the cost of the package offered by NASSCORP. In addition to this actuarial study, a costing study of operating the NHEA at various points in the entity's evolution may be necessary. This costing would need to make

[20] Given the fiscal space for the health sector is limited and that there is already a gap of $201 Million over five years to address the RMNCAH funding gap, the costing and actuarial study of the NHEA program may build on the RMNCAH IC which has already started prioritizing the EPHS by focusing on RMNCAH interventions which have the highest impact to address the top causes of maternal and child health mortality. This package may be the starting point for the costing and actuarial study.

appropriate assumptions about the NHEA's operations such as the number of staff and the number of people on the NHEA payroll, given that it may be a parastatal entity. These estimates may play a role in determining the financial feasibility of having a separate pooling and purchasing agency or utilizing existing organizational arrangement. One conclusion of this assessment may also be that it is unnecessary for Liberia to have a separate pooling / strategic purchasing entity like the NHEA.

In the mid-term, **the development of a law establishing the NHEA (should the result of the NHEA feasibility assessment lead to this conclusion), its functions, as well as an operational manual, may be useful to formalize the NHEA.** It is important to emphasize that the NHEA will not start from scratch but will build on lessons learned by the MOH OFM in fund management and the Performance Based Financing (PBF) unit in strategic purchasing. These can be transferred to the NHEA in the long term, should the option of having a separate pooling and purchasing agency be chosen. However, it is true that the NHEA may require a new set of skills in financial management as the NHEA necessitates an understanding of investing pooled funds.

In the long-term, depending on the result of NHEA feasibility assessment, the NHEA may be set up in Monrovia and operate with entities at county level or through alternative structural arrangements. As any insurance agency, the NHEA agency will need to process claims from health facilities and set up a strategic purchasing strategy and health facility payment mechanisms. CHTs, involved in the PBF model in the short-term, would execute the LHEF's strategic purchasing strategy and pay providers on a capitation basis (see purchasing section) under the NHEA's direction. Also, claim management is likely to require developing a solid health management information and accounting system at the health facility and NHEA levels which will require preliminary assessments. It is assumed that NASCCORP and other important public and private insurance systems may be pooled into the NHEA. This would be ideal for pooling and making NHEA more efficient and improve cross-subsidization, but it will depend on the feasibility assessment to be conducted in the short-term. Figures 5 and 6 show the mid to long-term LHEF vision from a pooling, mobilization and purchasing angles. Note again that the LHEF is a vision, a vehicle to implement the Health Financing Strategy and UHC while the NHEA is proposed as a pooling and purchasing entity to change provider behaviors and improve service quality.

Note: Figure 5 points an earlier point about whether the NHEA is necessary in the long-term. It is important to highlight that this separate entity is likely to have additional administrative costs to manage a system (pooling+capitation+ PBF) which the OFM and PBF Unit, working in unison, may be able to manage using existing organizational arrangements or by merging into one unit. This will need to be assessed during the NHEA feasibility study to be conducted in the short-term.

Figure 6. Short to Mid-Term Vision of the LHEF

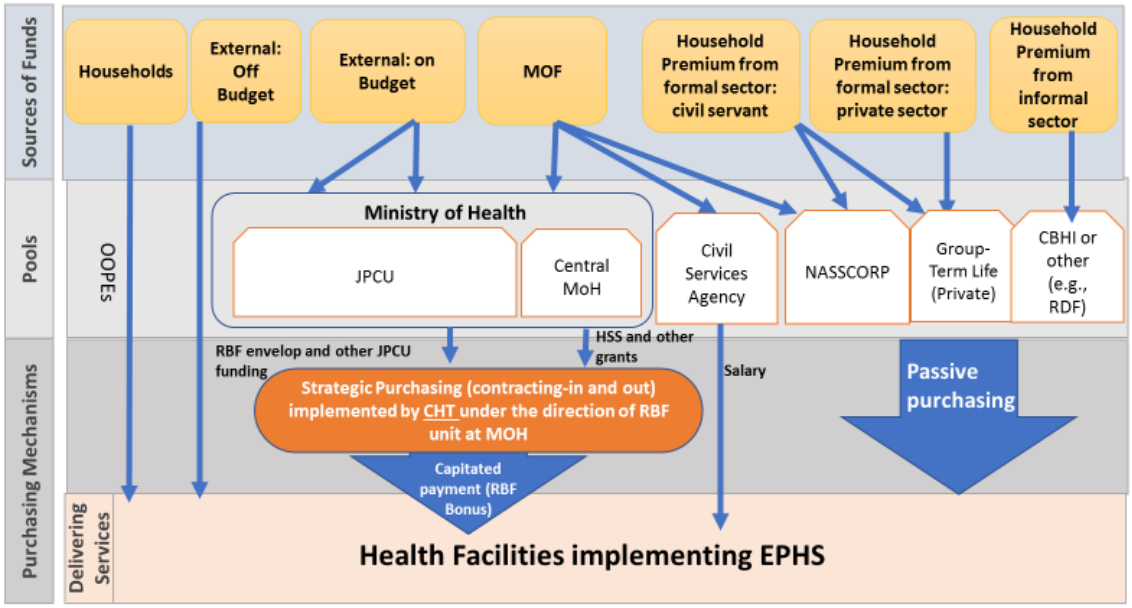
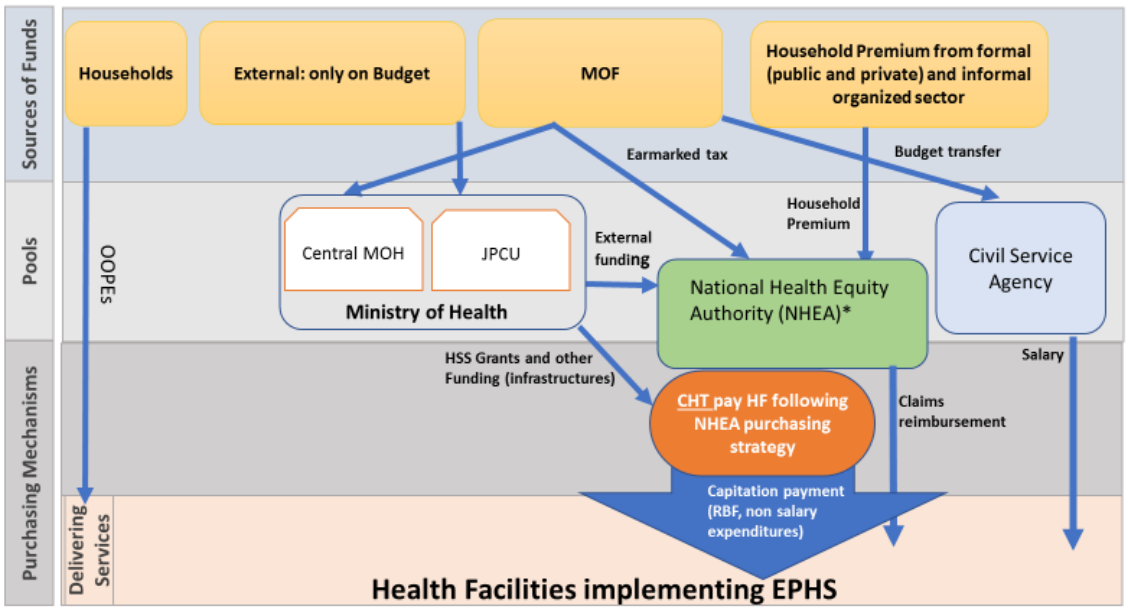


Figure 7. Mid to Long-Term Vision of the LHEF



*Note: NHEA is managing RBF, setting the purchasing strategy, collecting/pooling gov revenue and household premium

Table 2. Step-wise approach for pooling

	Short-Term Activities	Mid-Term Activities	Long-Term Activities
Pooling	1. **External revenue and domestic pooling:** JPCU assessment 2. **Social health contributory pooling:** feasibility	1. **External and government pooling:** Implement JPCU and OFM to manage increasing on-budget funding	1. **Social health contributory pooling:** Depending on results of NHEA feasibility assessment, set up of

	assessment including actuarial analysis, costing of running the NHEA and and propose recommendation on its organization, structure and financial management. Also, assess whether it needs to be a separate entity from MOH.	2. **Social health contributory pooling:** Draft and Pass NHEA law and develop manual of procedures including information on claim management, information system, staffing etc.) 3. Needs assessment on information and accounting system at health facility level – key components to process claims	the NHEA, pooling external funding (from JPCU/OFM), earmarked taxes (from the MOFDP) and household premium (from various (insurances); 2. Implement recommendations of information and accounting system need assessment at health facility level

5.3. Purchasing

The purchasing function is the third health financing strategy supporting UHC. Purchasing aims to get more health for the money and improve efficiency and equity in fund use. Purchasing also consists of establishing performance related provider payments to create incentives for improved quality and efficient service delivery (Kutzin, 2013). The following section revisits existing purchasing mechanisms in Liberia and provides policy options to guide Liberia toward strategic purchasing.

5.3.1. Situational Analysis

The implementation of FARA (Fixed Amount Reimbursement Agreement) has strengthened financial management and health system governance, necessary steps to implement a national health insurance system. The MoH implements a Performance Based Financing (PBF) model, derived from a performance based contracting (PBC) approach, in which the MoH contracts out delivery of essential primary health services to NGOs or has a 'hybrid' contract through which the CHT and NGO share responsibilities: i.e. some health facilities are managed by CHT and some by the NGO. This approach has been piloted in three counties since 2011 through the USAID/FARA Project. The MOH, with support from the WB/GFF, is designing a contracting-in approach where the MoH will directly contract counties (Sinoe, Rivercess and Gbarpolu, ranked among the lowest in basic health and service indicators) to support health facilities in providing a package of essential health services. Counties and health facilities will receive performance-based funds based on the quantity and quality of RMNCAH services. The county will also be paid based on their performance against specific indicators linked to CHT management performance, including health facility supervision. Additionally, the MOH, with WB support, will implement PBF in 6 secondary and tertiary hospitals to improve the quality of care.

The contracting out-approach has not contributed to improve resource allocation at county level: Allocation of public funds to counties do not reflect health-county needs, perpetuating geographic disparities in health outcomes. There is a very weak relationship between the budget received by County Health Teams (CHT) and the number of facilities, with consequences on health outcomes. For instance, Bomi county receives US$505,000[21] with a total of 24 health facilities and secure high health

[21] FY2015/2016 data were used in this analysis.

and maternal service coverage with 64% of women delivering at facility level and a 71% of Penta vaccine coverage. In contrast, Bong county receives 1.5 time less than Bomi county, but has 1.7 times more health facilities (41) and higher health needs: in Bong, only 35% of pregnant women deliver in a health facility and there is a 36% Penta vaccine coverage only. At the same time, allocation of public funding to counties does not reflect size of the population either. There seems to be is a negative correlation between a county's population, and the per capita funding they receive from the MoH, with funding per capita ranging widely across counties ($0.83-$8.00) concluding that there may not be a logical explanation underpinning the flow of resources to counties from the MoH.

Out-of-pocket spending for health is also a barrier to health service access. Liberia spends a high share of its budget on health (14.6% in FY 2017/2018). However, given the relatively small government budget, the health sector remains underfunded, with the poorest population bearing the brunt of needs: 15% of poor households encountered catastrophic health expenditures compared to 8% among the rich[22] (2014 household survey). Forty five percent of THE are born by households, which is much higher than the WHO 15%-20% threshold above which OOP for health are highly regressive (WHO, 2010). Outpatient services[23] and over-the-counter drugs payments are the main drivers of OOP (2014 household survey).

5.3.2. Policy Options

Resource Allocation Formula (RAF)

The MOH needs to apply a RAF for CHT grants in the short-term, which may guide external funding allocations for the CHT level in the mid-term. The 2013 resource allocation formula (RAF) assessment proposed the following RAF criteria: demography (Population distribution, under 5), geography (Percentage of population living beyond 5KM from nearest facility by County), morbidity (Share of the population that reported illness by county), poverty status and supply of clinical staff. In 2016, the Ministry reviewed the RAF by refining some specific parameters, e.g., the morbidity indicator was replaced by a combination of outcome indicators, as well as epidemiological indicators (disease prevalence). Next steps consist of consolidating the updated list of RAF criteria and discussing its feasibility with the MoFDP and CHTs. More specifically it is proposed to apply the RAF to MOH allotments for non-salary recurrent expenditures, starting with the health system CHT grant in the short-term and orient external resources to CHTs based on RAF parameters in the mid-term. There is even a potential to apply this RAF to existing on-budget funding in the short-term: For instance, the PBF envelope to CHTs is very much aligned to the RAF parameters: PBF will be piloted in the poorest counties with the worst health outcomes and coverage indicators. Likewise, the GFF Investment Case prioritization of counties with the worst health coverage indicators is a vehicle to orient off-budget funding to CHTs using RAF criteria, given that many donors have aligned to Liberia's Investment Case.

In the long-term, the RAF may apply to a more significant proportion of CHTs' budgets, including salary expenditures. It is to be noted that CHTs capture a limited portion of the total MOH budget compared to autonomous agencies and specific facilities. In the long-term, should PBF become institutionalized within the MOH budget, CHT budgets may expand. Hence, it is helpful to start applying the RAF on a narrow portion of CHT budgets and learn from implementation. In the long-term, it may

[22] Catastrophic health expenditures are defined as 10% of total household consumptions.
[23] Payment of outpatient services mostly apply to public facilities per the 2014 household survey. 72% of households went to a public health provider while 18% visited a private for profit provider.

be worth decentralizing the recruitment of civil servants (which is centralized in the Civil Service Agency) to ensure a better HR distribution in remote areas and have the RAF or some RAF parameters applied to HR budget flowing to CHTs.

Prospective Capitated Payment

In the mid to long-term, it is advised to have a prospective capitated payment. The NHEA would pay health facilities via a capitated payment through CHTs, and possibly on an output basis for prioritized services through PBF. Following best practices, health facilities could be funded on a capitation basis to contain costs and push for utilization of preventive services, which would improve allocative efficiency and health outcomes. A capitated payment is a fixed payment made to a provider in advance to deliver services in a pre-defined package for each enrolled individual for a fixed period of time. Providers are paid to care for a group of people—not just for sick patients and the advanced payment incentivizes providers to make autonomous decisions about how to use funds.

The MOH would need to conduct an assessment of capitation mechanisms in the short-term to foresee its implementation in the mid-term. This assessment would examine methodologies to estimate PHC facilities' catchment population and distribution of CHT budgets (through PBF envelop) across health facilities based on their catchment populations and adjustment criteria (geography, morbidity). This assessment would be instrumental for developing the NHEA as health insurance holders will be linked to their catchment population's health facilities for a fixed time period. It could also be that in the long-term capitation payments include a salary component, as health providers may be more accountable if staff recruitment is done locally.

In the mid-term, the Resource Allocation Formula for CHTs and capitation payments would be combined. Once grants to CHTs are based on a revised RAF, and if the payments are not subject to line item requirements, e.g. that the funds must be spent on certain expenditure categories, then the budget allocation from CHT to health facilities will effectively be CHT-level capitation.

Output-based financing

The MOH needs to implement and learn from several output-based approaches piloted in the short to mid-term. The Ministry of health is currently preparing PBF contracting-in pilot in 3 counties. The MOH department of Administration will be responsible for contracting the CHTs. Each quarter CHTs will be paid by the OFM based on their performance linked to indicators. The CHT will subsequently pay the health facilities based on their performance. Additionally, the Ministry is implementing fee-for-service and quality-based financing in six hospitals through the WB-funded Health System Strengthening Project (HSSP). The third step will consist of assessing contracting-in PBF as well as existing FARA models and using lessons to inform the consolidated national PBF approach as a part of the longer-term LHEF design. Output-based payments will continue to be a bonus (or marginal) payment at the beginning, but may expand to reimburse a larger proportion of service costs in the mid- to long-term.

In the mid- to long-term, the MoH may be in a position to construct a strategic purchasing strategy that will (a) be built on performance/output based provider payment mechanisms; (b) incorporate lessons learned from current PBF initiatives (c) contract-out services to private/ faith based health facilities; (d) includes cost-containment measures (e.g. gatekeeping); (e) is planned in the MOH budget to ensure sustainability.

Ultimately, PBF prepares the health system for the national health insurance system and UHC. PBF can increase utilization[24] and quality[25] of health services which would indirectly improve demand and boost health insurance enrolment. Additionally, PBF strengthens health systems[26] by creating autonomy and better governance at the health facility level, improving health facilities' financial management systems[27] and CHTs' information systems, all necessary functions to run a health insurance fund. Related to financial management, PBF incentivizes health facilities to use and better manage petty cash, which can also be an incentivized indicator. It will be important to carry out an assessment of current use of resources at health facility level and assess capacity needs to improve financial management and sustainability of the system. Likewise, PBF contributes to fostering allocative efficiency and equitable health systems: the PBF envelop to CHTs is based on population and geographical considerations, aligned with the resource allocation formula applied to CHTs. While contracting-in is only one part of the purchasing strategy, this will be a vehicle to expand resource to the Primary Health Care level since most services incentivized by PBF focus on preventive care, which will also be the core EPHS services funded by the NHEA. It will also be necessary that the MOH/MOF progressively institutionalizes RBF in the MOH budget depending on its success to ensure its sustainability.

Using resources in a more equitable way

To ensure the poor and the vulnerable are subsidized, reviewing the effectiveness of the Free Health Care Policy in the short-term will be crucial. The objective of the LHEF is to ensure that the vulnerable (above the poverty rate) and poor households (below the poverty rate) have access to a quality essential package of health services (EPHS). On one hand, this long-term goal implies work on exemption mechanisms' design and implementation, and the other hand requires identifying on funding sources. With regard to exemption mechanisms, the Free Health Care Policy may need to be tweaked in such a way that exemptions are implemented in the mid-term to long-term. In the short-term this requires revisiting and evaluating the current Free Health Care Policy and proposing options exempting the poor and other vulnerable population groups from payment as well as operational considerations. This analysis may comprise the following steps: 1) Estimating the cost of subsidizing priority population groups for a specific package of essential services; 2) Assessing existing and international exemption methodologies in the context of Liberia; 3) Examining resources available and sources of funds to agree on populations and services to be covered[28]; 4) Assessing options to operationalize, manage and fund exemption mechanisms; 5) Assessing how to purchase free services from providers e.g., PBF funding as a

[24] In Burundi, a recent impact evaluation of the nationwide program showed that PBF increased the probability of women delivering in an institution by 21 percent, the probability of using antenatal care by 7 percent, and the use of modern family planning services by 5 percent (Igna Bonfrer 2013). In Rwanda, PBF significantly increased coverage of institutional deliveries, preventive care visits for children, and quality of care. Performance-based incentives also had a statistically significant effect on the weight-for-age of children age 0 to 23 months and on the height-for-age of children age 24 to 49 months (Basinga 2011).

[25] Impact evaluation studies demonstrate PBF programs have generally had positive and significant effect on the quality of care. Afghanistan, Cameroon, and Zimbabwe studies have shown measurable improvements in structural and processual quality. In addition, the impact evaluation in Zambia found some improvements in structural quality in the PBF arm and somewhat more limited, but positive results on process quality. Health workers in PBF facilities in Afghanistan and Zambia also spent significantly more time during consultations with their patients (GFF Sixth Investors Groupe Meeting, Leapfrogging Development: Getting to Results, 2017)

[26] Impact evaluation studies show there is cross-cutting evidence of general health system strengthening in terms of more active monitoring and supervision and more quantifiable involvement with communities (Ibid, 2017)

[27] For instance, in DRC, PBF has contributed to the banking of payrolls. In Haiti, PBF has incentivized health facilities to open bank accounts and be more pro-active in the management of their budget envelop coming from PBF.

[28] This assessment may also examine international experience and make recommendations for how to "formalize" previously-informal payment for those not exempted (Cambodia did this when they moved away from a non-working free care policy.)

mechanism to manage exemptions at the facility level[29] or within the scope of the Revolving Drug Fund pilot, with prepayment; 6) Assess how an IT system can be developed and deployed to support the identification of the poor[30].

Table 3. Step-wise approach for purchasing

	Short-Term Activities	Mid-Term Activities	Long-Term Activities
Purchasing	**1. Pilot various output-based financing approach** including incremental reforms **2. Accompany the output-based pilots with various need assessments[31],** e.g., financial management to improve capacity of health facilities in using funds at health facility and CHT levels (to be cross-checked with need assessments of the NHEA). **3. Apply the Resource Allocation Formula (RAF) to CHT grants** and to some on-budget funding **4. Study to set up a capitation mechanism** (including bonus and non-salary expenditures) on the mid to long-term **5. Review exemption mechanisms of the Free Health Care Policy, including an assessment of** current identification system of the poor and potential IT systems	**1. Review the various output-based models and provider payment types** informing the development of strategic purchasing and capitation mechanism **2. Implement recommendations from need assessments** **3. Apply the RAF to more external funding** **4. Implement the capitation payment in PBF counties** **5. Implement updated exemption mechanisms** **6. Depending on the Free Health Care Policy Review, develop and deploy IT system to identify the poor.**	**1. Design and Implement strategic purchasing approach** of the LHEF 2. **Decentralize the recruitment process** of human resources **3. Implement a capitation mechanism** as part of the LHEF **4. Monitor the implementation of the exemption mechanisms** and IT systems

5.4. Service Delivery

[29] For instance, in Tanzania PBF is providing higher fee-for-services to health facilities who provide services to more poor people. In Burundi, services are free for maternal and child health services and subsidized through the PBF fee-for-service system.

[30] The later may be linked with the IT need assessment of the NHEA which will be required at health facility level to make claim processing more efficient.

[31] These need assessments will likely be carried out by the Technical Assistance (TA) Agency attached to the WB-MOH-PBF Program.

Service delivery is a key health system building block. Health financing aims to ensure sufficient funding to provide quality services at the facility level. Hence, health financing and service delivery are intertwined. This section emphasizes the necessity of improving quality service delivery when designing a national health insurance system. This section describes issues faced in service delivery and provides an overview of the required components to simplify and promote a quality benefit package purchased through output-based financing.

5.4.1. Situational Analysis

Inadequate production, distribution and retention of health workers further impedes efficient service delivery. Due to low production capacity for trained workers and poor retention, Liberia has fewer than 1.15 skilled personnel per 1,000 population, far below the recommended minimum threshold of 2.3 skilled health personnel per 1,000 population[32]. There is only approximately 1.0 registered midwife[33] and 0.014 physician[34] for every 23,000 persons in Liberia, which is significantly below the WHO recommended workforce ratio of 1 per 5000[35]. Whilst the number of mid-level cadres, particularly nurses and midwives has been steadily increasing since 2000 (due to concerted investment into their production), growth in the number of physicians remains low. Further, 29% of Liberians live in remote areas beyond 5km of a health facility, further limiting access to service providers operating in health facilities, thus necessitating the recruitment and development of a qualified pool of community health workers to ensure access to care in remote regions.

Implementing a standardized national community health workforce to expand essential health services may be hindered by a funding gap. Community Health Assistants (CHAs) are essential to increase access to services. According to the 2013 MOH mapping exercise, there were 8,052 community health volunteers, of which 3,727 were general community health volunteers (gCHVs)[36]. The services delivered by gCHVs included the integrated community case management of diarrhea, pneumonia, and malaria, health and hygiene promotion, and social mobilization. However, most gCHV projects were partner-led with minimal support from county and district health teams. The MOH 2016 Community Health Policy calls for the creation of a formal cadre of incentivized CHAs which is underway. 2016–2017. The plan envisages an estimated 4,000 CHAs in remote areas beyond one hour's walk (or more than 5km) from a health facility. While this approach may expand access to essential health services and help preventing future possible catastrophe[37], there is an issue of how to sustain it. The Health Workforce Plan (HWP) has an estimated a gap at $317 million, of which 35% is attributable to the CHA approach (MOH/CHAI, 2017).

A weak supply chain at all levels of the health system affects quality service delivery: Frequent stock outs are reported at sub-national levels due to weak distribution mechanisms and central level purchasing hindering last mile distribution, product pilferage, and poor stock management linked to inadequate monitoring of drugs consumption at the facility level as well as improper drug storage. These challenges are compounded by poor road conditions. Consequently, 50% of health facilities

[32] required to ensure access to a skilled provider at birth, for eighty percent of the population
[33] Liberia Health Care Workforce Program
[34] Global Health Observatory data repository (http://apps.who.int/gho/data/node.main.A1444)
[35] The world health report 2006: Working together for health to highlight the global health workforce crisis
[36] The others are 2,856 trained traditional midwives (TTMs), 586 traditional midwives (TMs), 238 household health promoters (HHPs), and 645 community-directed distributors (CDDs).
[37] The need to improve community health systems is one of the lessons of Ebola and there is also potentially an argument that such a system is necessary to avoid future potential catastrophes

experience frequent shortages of essential medicines and medical supplies, including supplies necessary to address and prevent critical health conditions among pregnant women and children.

Collaboration between public and private actors in the health sector is limited: 38% of health facilities in Liberia are privately owned and up to one third of patients receiving key maternal and child health services consulted a private provider in the last service provision assessment (SPA, 2014): In 2013, among women that obtained modern family planning methods, 31% obtained methods through the private sector with higher utilization rates in urban areas. In 2013, among women that sought treatment for children with diarrhea in the 2 weeks preceding the study, 22% received treatment from the private sector with significantly higher private sector utilization rates in urban areas. Key bottlenecks in engaging the private sector include limited to no capture of data from private health facilities despite providing the bulk of health services and government failure to engage the sector despite recognizing that private sector engagement has the potential of increasing the health sector's resource envelope (GOL, 2015). However, the EVD outbreak demonstrated that private sector engagement in the health provides opportunities for additional health financing and management (RMNCAH Investment Case).

5.4.2. Policy Options

Setting up a national health insurance system would require the MOH to improve health service quality, incentivizing households to enroll in a contributory system. While a health insurance scheme may help alleviate demand side barriers to accessing health services, it is important to address supply side barriers as well. Otherwise, the negative affect of poor service delivery systems on user satisfaction may poison the well for any future health financing reforms (Blanchet et al, 2017). This assumption is backed by evidence from consumer preference market research, which demonstrated that any willingness of users to make pre-paid contributions is contingent on the availability of services and improvements from service delivery systems' status quo. Thus, as noted above, the MOH will implement "stepping stones" interventions to improve supply side quality and enhance demand for the EPHS. Additionally, these interventions will help improving the MOH's management capacity and provide it with tools and learning opportunities to implement more sophisticated health delivery and financing reforms in the long-term**.**

The MOH needs to adopt a clear and effective policy/strategy to plan and manage the health workforce (HWF) as a foundational element of efficient service delivery and the LHEF: There are on ongoing processes to optimize the health workforce, review and harmonize salary scales, and establish performance management systems for all health workers. The government needs to use results from these processes to accelerate the necessary HWF reforms: revision, adoption and implementation of the National Human Resource Policy which is expected to address issues related to maldistribution, absorption and remuneration of health workers. It is essential that the MOH improve budget allocation for human resources to adopt and implement recommendations from the National Human Resource Policy and the workface optimization study.

It is recommended that the MOH improve drug availability and quality through ongoing supply chain reforms. The government should accelerate restructuring the supply chain system, including expansion of regional/district drug and commodity depots, to avoid commodity wastage and drug stock-outs. Additionally, PBF implementation may contribute to improved drug availability as reducing stock-outs is a national indicator on which health providers are rewarded.

Given mixed evidence of the impact of revolving drug funds (RDF) on drug access, re-introducing this mechanism to improve drug availability and quality may not be the most appropriate option. The RDF requires patients to pay fees for drugs at the facility level. Those fees are managed by facilities and used to purchase medicines at a lower price for patients. The overall objective of the RDF is to improve drug availability and generate some out-of-pocket financing (i.e., cost recovery) for the health system (CSH, 2017). There is limited research and evidence on the impact of RDFs across Africa and existing research demonstrates that RDF improved availability of drugs in only half of the countries where it was used.

Piloting RDF with the point-of-service payment approach may foster unequal access to health services and is not advised. One of the reasons behind the mixed results of the RDF is that it generates user fees, creating financial obstacles to accessing health services. Literature demonstrates that RDF programs have reported challenges maintaining equitable drugs access since fees at the point of service can have a negative impact on service utilization (CSH, 2017). The pre-war RDF in Liberia was implemented in a very different global context from today. RDF was implemented from 1985 to 1989, during which the Bamako Initiative promoted user fees to finance health services and improve quality of care (Yates, 2009; McKinnon, et al. 2015). In recent years, several African nations have eliminated fees[38] because research has showed that user fees impose a barrier to health services, particularly for the poor (Smith & Nguyen, 2013, Ridd, 2003; Nyonatar, 1999; McIntyre, 2006), threatening progress towards UHC[39]. Hence, user fees are no longer favored as a way to pay for health services[40]. Finally, the Free Health Care Policy precludes the utilization of user fees at the point of services in Liberia, making the implementation of the point-of-service version of the RDF difficult.

The RDF pilot's prepayment approach may help prepare the health system for the LHEF. The MOH planned to implement the RDF in two phases. During the first phase, drugs would be paid for on a "pay-as-you-go" basis by the users at facilities. Pregnant women and children under five would be exempt from user fees during phase I of the pilot. This phase would then be assessed to transition to a "pre-payment" phase, which would create a voluntary risk pool for essential medicines. While the first phase is not advisable because of the regressive effect of user fees, the second phase is an opportunity to eventually inform the broader LHEF design in terms of contributory and pooling mechanisms at community level (e.g. pre-payment phase of the pilot) as well as PFM capacities at facility level. It is also preferable to pilot the RDF pre-payment system given that service users showed higher support toward that option, compared to point-of-services payments (CSH, 2017).

EPHS needs to be revisited and linked to the policy dialogue on user fee exemptions and the LHEF. In 2011, Liberia revised its Basic Package of Health Services (BPHS) and renamed it as EPHS– which includes a broad scope of essential services delivered at various facility levels.[41] Six years later, and in the post-

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[38] Yates R. Universal health care and the removal of user fees. Lancet. 2009;373:2078–81; McKinnon B, Harper S, Kaufman JS, Bergevin Y. Removing user fees for facility-based delivery services: a difference-in-differences evaluation from ten sub-Saharan African countries. Health Policy Plan. 2015;30(4):432–41.

[39] World Health Organization. Universal health coverage (UHC) Fact sheet No. 395. 2015 http://www.who.int/mediacentre/factsheets/fs395/en/. Accessed July 2016.

[40] Robert E, Ridde V. Global health actors no longer in favor of user fees: a documentary study. Glob Health. 2013;9:29; Kim JY. Poverty, health and the human future. Geneva: World Health Assembly; 2013.

[41] "Essential Package of Health Services: Primary Level" and "Essential Package of Health Services: Secondary and Tertiary Levels"; Ministry of Health and Social Welfare of Liberia, 2011.

Ebola era, the EPHS could be revisited to assess its feasibility and public health relevance. This exercise may build on the RMNCAH IC which provides a list of prioritized EPHS services based on the burden of diseases in Liberia and resources available (RMNCAH IC, 2016-2020). Moreover, the MOH may need to re-prioritize and re-group the services included in the EPHS to ensure the packages are defined to remain free for all. Last, but not least, service packages may need to be further tiered, per beneficiary and contributing group, to inform services provided by the NHEA. Moreover, the growing private sector role in delivering EPHS services should be evaluated to increase access to services and overall system efficiency.

Table 4. Step-wise approach for service delivery

	Short-Term Activities	Mid-Term Activities	Long-Term Activities
Service Delivery	1. **Continue implementation of the nationwide CHA program** 2. Implement and finance recommendations from the HWF and workforce optimization 3. **Test PBF to improve staff motivation, availability of drugs, utilization and quality of services** 4. **Design of RDF-Prepayment pilot** **5. Systemic supply chain reform**	**1. Integrate community health workers into PBF** **2. Assessment of the private sector** **3. Revisit EPHS building on the RMNCAH IC focusing on a "prioritized" EPHS** **4. Implement a RDF-prepayment pilot (voluntary insurance for informal sector)** **5. Systemic supply chain reform (on-going)**	1. **Monitor the implementation of the "prioritized" EPHS** 2. **Provide quality EPHS to the poor and to insurance holders (LHEF)**

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