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SIERRA LEONE FHCI EVALUATION

Fiscal Space Analysis: FHCI and UHC

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Executive summary

Objective of report

The April 2010 the Government of Sierra Leone (GoSL) removed user fees for pregnant women, lactating mothers and children under five, under the Free Health Care Initiative (FHCI). The Oxford Policy Management (OPM) team has been working on this evaluation since April 2014. The objective of this Fiscal Space Analysis is to provide a forward looking assessment of the prospects of financing over the next ten years. Specifically, how can Sierra Leone improve sustainability of FHCI financing, lowering households out of pocket payments and dependence on donors. There is also a secondary analysis providing insights into how Sierra Leone could work towards achieving its longer term health goal of Universal Health Coverage (UHC).

Approach of this report

The core of the fiscal space analysis takes the form of a 'funding gap analysis', under scenarios of 'business as usual' and 'maximised fiscal space'. The analysis is underpinned by a macroeconomic framework to project forward key economic, fiscal and health funding variables (health here refers to both FHCI and UHC). We embed the results of the quantitative projections of fiscal space for health within a discussion of the health and macroeconomic policy in Sierra Leone.

The business as usual scenario projects health financing from the current policies and plans. The maximised fiscal space scenario assumes that the GoSL adopts policies to prioritise health to meet resource needs over the next ten years. Four policy options are discussed; increased government allocations to health (including mandatory health insurance), implementation of an earmarked levy for health, efficiency savings, and borrowing.

Context

Sierra Leone is a low income post-conflict fragile state with a per capita income of 660 USD in 2015. Health is essential for strong economic growth and social development. However, the scale of household OOP expenditures are increasing the risk of CHE and must be reduced to create a truly FHCI and begin the path towards UHC.

The business as usual scenario has shown that if Sierra Leone FHC and UHC policy continues both areas will be increasingly underfunded within ten years. Neither the economy nor the tax base are projected to be strong enough to create the fiscal space to invest as needed in health if current policies are sustained.

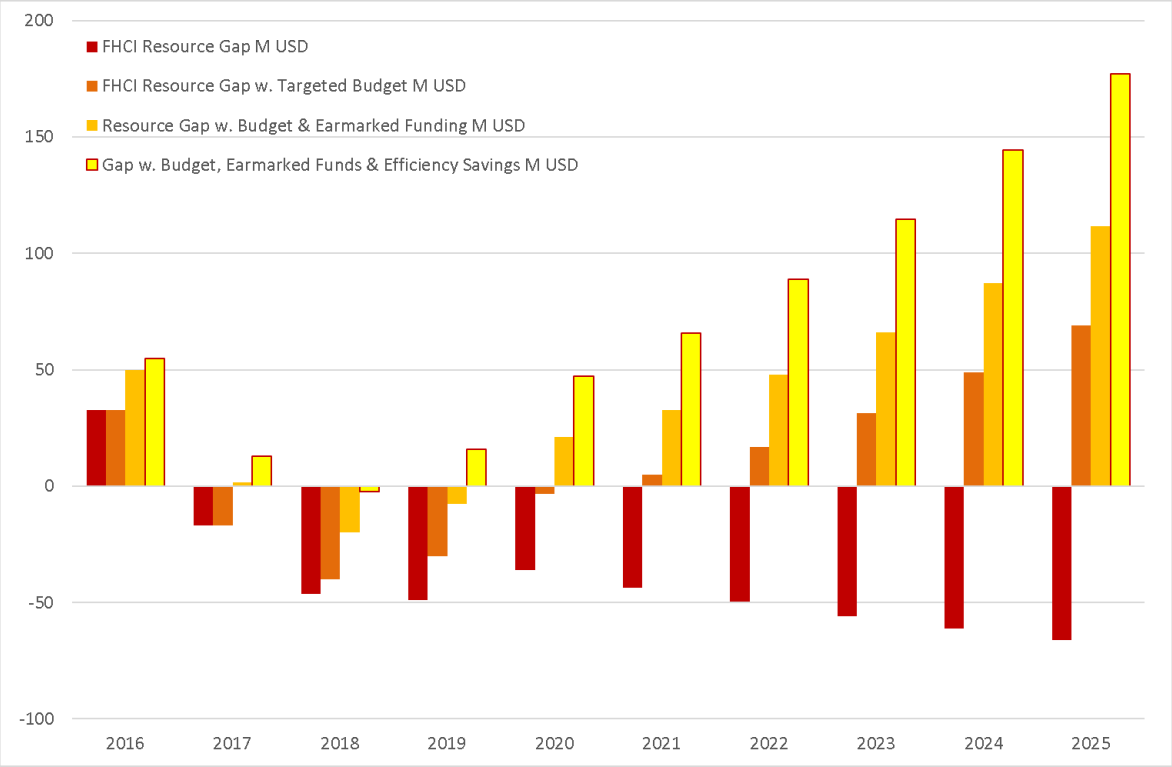
Findings: FHCI

Taking all of the prioritising activities together we are left with the scenario described below in Figure i for the FHCI resource gap. This includes the expenditures from government and donors only in trying to achieve sustainable non-catastrophic financing. The developments projected under the maximising fiscal space for FHCI can be explained in the following steps:

1. The original financing gap (red bar chart) is the resultant gap under scenario 1 'business as usual'. By 2025 the gap is projected to reach 66 million USD, which is 0.6% of GDP.

2. The next bar chart (orange) shows how the gap can be reduced through government funding. Raising the budget for FHCI - in line with the total health budget moving towards the 15% Abuja target - would close the gap in its entirety by 2021. [A second option of including FHCI beneficiaries into SLeSHI may reduce the gap by only 2% in 2025]. A gap remains in the medium term and short term financing options are required.
3. The third bar chart (gold) shows the sum of the government's actions (in point 2 above) with the potential resources from earmarked taxes. These innovative funding mechanisms could reduce the financing gap by 65%. In the unlikely situation wherein the GoSL was to implement all new taxes on top of raising budgetary allocations the financing gap would decline in 2017, and would be closed by 2020.
4. The final bar chart (yellow) takes the situation in point 3 above and adds in renewed efforts of the government improve efficiency. Efficiencies can be made but can take some time to implement but choosing the right areas to target could bring the closure to the financing gap.

Figure i: FHCI Maximising Fiscal Space Financing Gap (M USD)



In sum with a reprioritised focus on FHCI financing policy the FHCI resource gap can be closed. Longer term budgeting needs should to be considered and implemented soon for the impact to be felt post-2020. Medium term earmarked taxes and efficiency savings can be greatly beneficial and should be further researched, planned and implemented for their introduction in the near term before economic growth can support greater budgetary allocation to FHCI.

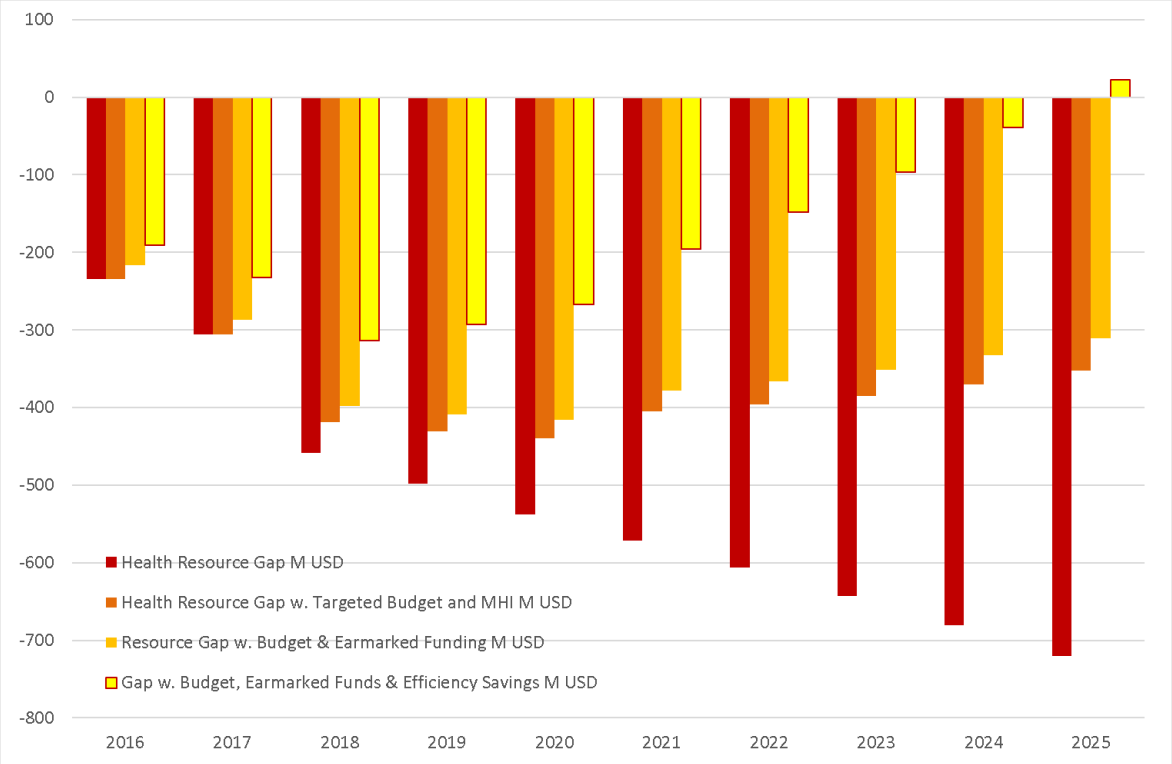
Findings: UHC

For UHC taking all possible funding elements, the projected under the maximising fiscal space for health can be explained in the following steps and shown in Figure ii:

1. The original financing gap (red bar chart) is the resultant gap under scenario 1 'business as usual'. By 2025 the gap is projected to reach 720 million USD, which is 6.6% of GDP.

2. The next bar chart (orange) shows how the gap can be reduced through government funding. Moving towards the 15% Abuja target and developing SLeSHI could reduce the gap by a half by 2025, however, the gap remains at 352 million USD. The impact of this action is not seen until 2018 when new budgets can be planned and there can be new focus on health spending, it has a substantial impact on the resource gap.
3. The third bar chart (gold) shows the sum of the government's actions (in point 2 above) with the potential resources from earmarked taxes. These innovative funding mechanisms could reduce the financing gap by 5%. In the unlikely situation wherein the GoSL was to implement all new taxes on top of raising budgetary allocations and health insurance contributions the financing gap would fall to 311 million USD in 2025, accounting for 0.4% of GDP.
4. The final bar chart (yellow) takes the situation in point 3 above and adds in renewed efforts of the government improve efficiency. This leaves a final financing gap of 39 million USD in 2024, and a surplus of 23 million in 2025; i.e. if all these actions are considered in conjunction the financing gap can be filled in 2025.
5. Under this scenario, if the GoSL wanted to fully close the gap to cover all UHC needs over the entire period they would need to borrow. The amount needed to borrow is represented by the yellow final bar chart, which averages 178 million USD a year across the ten years. As a proportion of GDP this would be the equivalent of borrowing 3% of GDP a year; peaking at 5% in the first five years and falling to zero by 2025 as other funding sources take effect. However, it is not inevitable that the government will need to borrow, and for Sierra Leone borrowing these large sums of money are not advised. This gap can be filled by extending other domestic mechanisms or gaining extra donor funds.

Figure ii: UHC Maximising Fiscal Space Financing Gap (M USD)



In sum the longer term plan to raise budget allocation for health to 15% of GGE will have a significant impact on the financing for UHC. This presupposes an investment into widening the tax

base and increasing domestic revenues. These scale of reforms will take time and so to cover the near term health needs Sierra Leone has the opportunity to implement earmarked taxes. Additionally, fiscal space can be found when overcoming inefficiencies in the health sector which can provide efficiency gains over the ten years. The impact of SLeSHI may be negligible over the next ten years as the scheme is in its development phase. All of these domestic efforts however will not be sufficient to cover the financing gap. Since borrowing has been written off as a possibility for Sierra Leone it means that external financing will be required for the foreseeable future to deliver a basic package of health services to the population.

Conclusion

These projections show that the most effective domestic financing mechanism is government spending – whether purely budgetary or health insurance allocations. The centralised coordinated systems can provide the substantial financing to the majority of the population for health services to be delivered. However, the realisation of this is not expected in the medium term. Therefore, other sources of domestic funding can be essential to cover financing needs in the near term such as earmarked taxes where Sin taxes and Airline Levies are seen as strong contenders in Sierra Leone, and also work on efficiency savings in the health system in general can provide fiscal space.

The newly proposed Withholding Tax earmarked for FHCI is a sensible proposition for an earmarked tax (stable and sustainable flow of income). However, as it stands the funds are not expected to cover the FHCI costs, and the organisational structure may add to complexities of health planning. These should be reconsidered.

The SLeSHI plans are also in their infancy and require some development before this can be taken as a serious financing mechanism to achieve UHC in Sierra Leone.

In sum, this analysis suggests then that continuation of external donor support is essential to continue to deliver FHCI and UHC services in an effective manner throughout the country. Sierra Leone clearly continues to require external support before they can transition to a self-sustaining country. If this does not transpire the strong health outcomes Sierra Leone has achieved in recent years will be at risk.

Whilst there is political will to support the financing of health, there are also non-financing factors to be considered before any new financing can be fully effective. To gain more external financing and, crucially, to have the funding on-budget and aligned with GoSL priorities the GoSL will need to improve PFM within the health sector.

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List of abbreviations

CHE	Catastrophic Health Expenditures
CSO	Civil Society Organisation
DALY	Disability-Adjusted Life Year
DFID	UK Department for International Development
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DPPI	Directorate of Policy, Planning and Information
FHCI	Free Health Care Initiative
GoSL	Government of Sierra Leone
HMIS	Health Management Information System
HRH	Human Resources for Health
HSRP	Health Sector Recovery Plan (2015-2020)
IMF	International Monetary Fund
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MDA	Ministries, Departments, Agencies
MDGs	Millennium Development Goals
MNCH	Maternal, Newborn and Child Health
MoFED	Ministry of Finance and Economic Development
MoHS	Ministry of Health and Sanitation
NASSIT	National Social Security and Insurance Trust
NHA	National Health Accounts
NHSSP	National Health Sector Strategic Plan
NPPU	National Pharmaceutical Procurement Unit
NPSS	National Public Services Survey
OOP	Out Of Pocket
OPM	Oxford Policy Management
PBF	Performance Based Financing
PFM	Public Financial Management
PHU	Peripheral Health Unit
RHCP	Reproductive and Child Health Project
RMNH	Reproductive, Maternal and Newborn Health
SLA	Service Level Agreement

SLeSHI	Sierra Leone Social Health Insurance
SLIHS	Sierra Leone Integrated Household Survey
THE	Total Health Expenditure
UNICEF	United Nations Children's Fund
VfM	Value for Money
WHO	World Health Organization

1 Introduction

The removal of user fees in Sierra Leone in April 2010 for pregnant women, lactating mothers and children under five, referred to as the Free Health Care Initiative (FHCI), has attracted enormous political attention at the national and international level. The UK government provided financial, technical and political support to the FHCI throughout the preparation and implementation stages of the reform. Evaluating the impact of this support as well as the reform itself is therefore crucial.

The OPM team has been working on this evaluation since April 2014. Their first annual report takes stock of the progress of the evaluation to date, draws out some tentative lessons based on initial results and highlights areas where work is still needed. Part of this process is to look at the financial sustainability of the FHCI and longer term prospects for achieving Universal Health Coverage (UHC). The key findings from this fiscal space analysis are contained within the main FHCI evaluation report. This report dedicated to fiscal space analysis discusses the full methodology and provides a more detailed discussion of the findings on long term financing with emphasis on finding domestic revenues to fund FHCI and UHC.

The fiscal space analysis will provide the Government of Sierra Leone (GoSL) and the health stakeholders with an insight of the available funding for health over the next ten years. Two scenarios will be examined:

- First, available funding if no new health financing initiatives are taken (business as usual); and
- Second, available funding if new financial policy initiatives are put in place (maximum fiscal space for health).

Available funding for health will be set out, in both scenarios, against costing benchmarks. We provide two costing benchmarks: one that is focussed on a number of funding categories essential to the FHCI (but not recognising its full supply side strengthening approach); and one that proxies for the cost of achieving UHC (and as such is wider than the FHCI). Setting out available funding against cost of the FHCI will provide the government with a view of the adequacy of funding for the FHCI in the short and long run. Policy recommendations will be made on four key financing areas: Government expenditures (budget and health insurance); hypothetical or earmarked taxes for health (sin taxes for example); efficiency savings; and whether borrowing can be a feasible option.

So as not to duplicate the work within the main FHCI Evaluation Report, this report will begin with only a short outline of the FHCI in Sierra Leone before moving onto the evidence on fiscal space for health and some discussion on methodology. Next an overview of the economy and government fiscal position will be presented – setting out the economic environment as a backdrop for domestic financing for health. Thereafter the findings of the financing gap analysis will be shown for FHCI and possible sources of sustainable financing will be identified. The longer term UHC prospects will be considered in the penultimate section again assessing the magnitude of the financing gap and the domestic funding options available. The report will conclude with some policy recommendations.

2 Background and Methodology

This section first provides a brief overview of the FHCI and then continues to show how the current FHCI is envisioned to evolve into a system of UHC in the longer term. It will finish with a short overview of the methodology.

2.1 Background to the Free Health Care Initiative

The FHCI programme was launched in April 2010 by the President of Sierra Leone in response to high maternal and child mortality rates, which were among the worst in the world. The programme aimed to make health services free at the point of delivery for the target populations of expectant and lactating mothers and children under five years of age. It aimed to reach up to 230,000 pregnant women, 230,000 lactating women and 1 million children under five every year, saving lives and improving health outcomes.[1]

The programme was complemented by seven 'supply-side' interventions intended to strengthen health services in order to meet the additional demand created. These supporting measures aim to strengthen the health services that people are being encouraged to use, and include the areas of:

- Drugs and equipment: The continuous availability of equipment, drugs, and other essential commodities;
- Health workforce: Adequate number of qualified health workers;
- Governance: Strengthened and effective oversight and management arrangements;
- Infrastructure: Adequate infrastructure to deliver services;
- Communication with the general public: More and better information, education and communication to stimulate demand for free quality health services;
- Monitoring and evaluation (M&E): A comprehensive M&E system;
- Financing: Sufficient funds to fund the FHCI.

In effect the FHCI constitutes a package of interventions; namely, user fee removal (the core intervention) augmented by seven[2] supporting intervention areas that seek to strengthen vital areas of health systems function and delivery. Two features of the FHCI in Sierra Leone are important to note:

First**,** from the outset a more comprehensive approach was taken to realising it, i.e. not just focusing on announcing the end of charging at the point of use but also working from an early stage on some of the health system support measures that would be required to respond to greater patient demand, and thereby deliver results. The fact that the FHCI was a more comprehensive approach implies a degree of foresight and innovation that may influence results. Health system strengthening efforts illustrated via activities undertaken in the 'six pillar' areas are expected to work together, and can therefore not be easily dissociated.

[1] Government of Sierra Leone. Free Health Care Services for Pregnant and Lactating Women and Young Children in Sierra Leone. Sierra Leone Conference, November 2009.
[2] Although the original MoHS policy reform papers talk about 'six pillars', there were in effect seven working groups created, including financing.

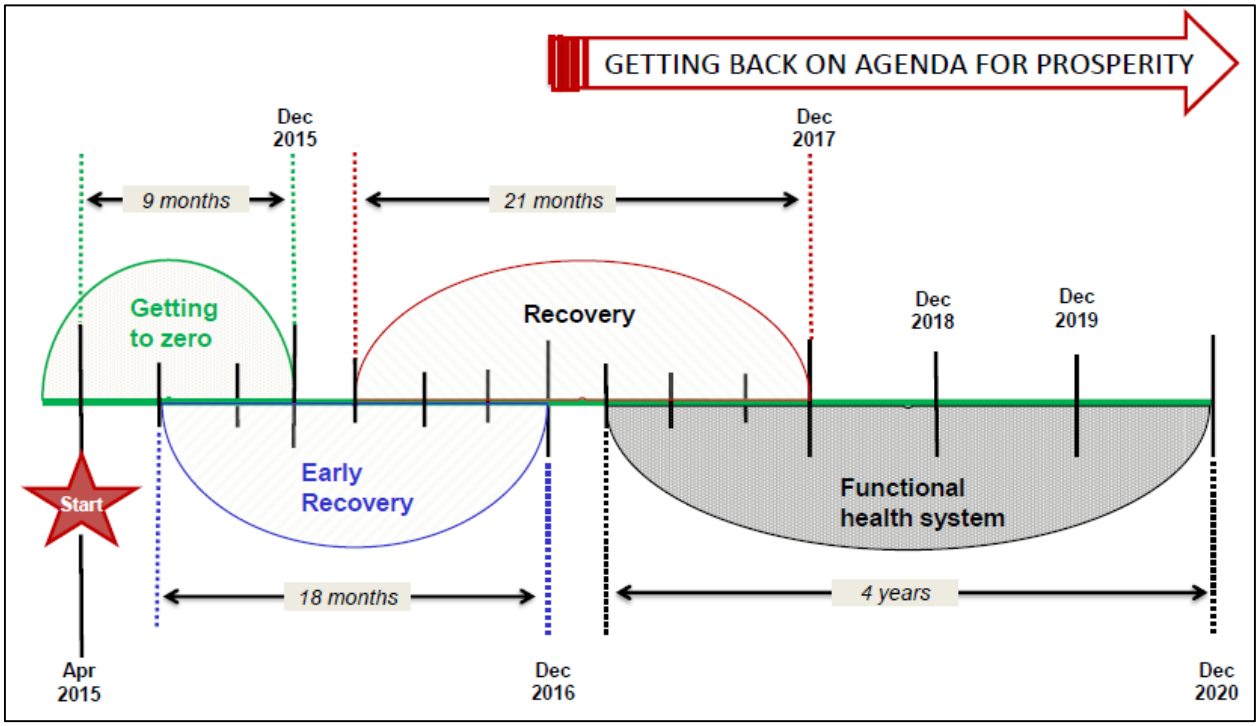
Second, unlike the cases of some other free health care reforms in the region, and previous reform attempts in Sierra Leone,[3] the FHCI was able to capitalise on donor support and assistance, reinforcing political will.

The combination of these two factors has led to the FHCI catalysing a rolling programme of reform. The FHCI is therefore not a one-off change but rather a rolling series of health system reforms. Rather than being a distinct 'programme', it is a whole-of-sector reform programme which benefits the entire health system but with at its core a specific population group. This has important implications for the fiscal space study.

2.2 How FHCI Relates to UHC within Sierra Leone Policy Context

Agenda for Prosperity is the Sierra Leonean medium term Poverty Reduction Strategy Paper (PRPS) covering the period 2013 to 2018[4]. As will be seen in chapter 4 the economic environment has been under great stress over this period, (primarily due to the duel shocks of the Ebola outbreak and the collapse in key export markets). As a result, the development plans are off-track. The GoSL has creating short term plan to get the country back on track to meet its medium term goals. This process is visualised in Figure 1 with an emphasis on what this means for the health sector.

Figure 1: Sequencing of Events for Recovery Policy Towards Medium Term Agenda



Source: Health Sector Recovery Plan (2015-2020)

Agenda for Prosperity states that UHC is a key ideal of the GoSL. The National Health Sector Strategic Plan (NHSSP) - covering 2010 to 2015 which introduced the FHCI – goes further to say that the FHCI was a first step toward UHC attainment[5]. Following this, the Health Sector Recovery Plan (HSRP) for 2015 to 2020 links the FHCI and UHC with the Chief Medical Officer remarking

[3] There was an attempt to eliminate user fees in Sierra Leone in 2005, which failed because the government could not enforce the law and informal fees replaced formal ones (Scharff, 2012).
[4] Government of Sierra Leone (2013). The Agenda for Prosperity – Road to middle income status. Sierra Leone's third generation poverty reduction strategy paper (2013 – 2018)
[5] Cited in MoHS (2015) Health Sector Recovery Plan 2015-2020, page 17.

that "*a basic package of essential health services was developed in 2010. The intention then was to improve infant and maternal health with the aim of progressively moving towards universal coverage*"[6].

These aligned medium and long term policy aims allow this fiscal space analysis to assess the sustainability of FHCI financing with a view to how this can potentially be incorporated into a vision of sustainable UHC.

2.3 Methodology

The full methodology in set out in the Annex A and B, but in short the approach adopts a simple financial programming framework ensuring consistency in the projections and capturing interactions between health spending and the economy. It takes as a starting point GoSL policy documents such as HRSP (2015 – 2020), Agenda for Prosperity which covers 2013 to 2018, and the longer term Vision 2035, as well as the tables published on a country's macroeconomic performance by the IMF (as agreed with the GoSL).

The core of the analysis takes the form of a 'funding gap analysis', under scenarios of 'business as usual' and 'maximised fiscal space'. The analysis is underpinned by a macroeconomic framework to project forward key economic, fiscal and health funding variables (health here refers to both FHCI and UHC distinction to be made below). We embed the results of the quantitative projections of fiscal space for health within a discussion of the health and macroeconomic policy in Sierra Leone.

The business as usual scenario projects health financing from the current policies and plans. The maximised fiscal space scenario assumes that the GoSL adopts policies to prioritise health to meet resource needs over the next ten years. Four policy options are discussed; increased government allocations to health (including mandatory health insurance), implementation of an earmarked levy for health, efficiency savings, and borrowing.

For this analysis on UHC we take only the government budgetary expenditures on health (inclusive of mandatory health insurance) and the external funding, this is titled 'Official Health Spending'. We exclude OOP and the private sector as we are focusing on the basic package of health services under UHC and want to assess the situation without including the non-planned or catastrophic expenditures associated with OOP. Culmination of assumptions surrounding UHC:

Scenario 1: Business as Usual – Compares health needs against available expenditures from GoSL and Official Development Assistance (ODA).

- ⇨ ***Scenario 1*** presents the situation assuming needs continue as expected, there are no policy changes in spending, and donors do begin to reduce their income flows and so there will be a shortfall of financing for health.

Scenario 2: Maximising Fiscal Space – As per scenario 1 but with a stronger budget commitment to health; i.e. Government Expenditures on health rising to targeted values by 2025. Additionally, there is the inclusion of new alternative source of funding – earmarked taxes – and efficiency savings. Borrowing is discussed if all other domestic funding sources are exhausted and a financing gap remains.

- ⇨ ***Scenario 2*** present a possible future where governments are taking a pro-active stance to meet the health needs of citizens to offset the decline from donor funding.

[6] Ibid, page 7.

For FHCI the methodology is similar and the assumptions present the following scenarios:

Scenario 1: Business as Usual – Compares FHCI needs against available expenditures from GoSL and Official Development Assistance (ODA).

- ⇨ ***For Government FHCI spending*** this longer term projection methodology assumes that the change in emphasis to RMCH has occurred post-2010 introduction of FHCI and no large budgeting allocation will be required to focus further on RMCH / FHCI.
- ⇨ ***For Donor FHCI spending*** this longer term projection methodology assumes that donors will remain within the FHC sector but are not scaling up. External financing remains stable in nominal terms, i.e. declining in real terms.

Scenario 2: Maximising Fiscal Space – As per scenario 1 but with a stronger budget commitment to FHCI; i.e. Government Expenditures on FHCI rising in line with the targeted total government health spending by 2025. Additionally, there is the inclusion of new alternative source of funding – earmarked taxes – and efficiency savings. Borrowing is discussed if all other domestic funding sources are exhausted and a financing gap remains.

- ⇨ ***Scenario 2*** present a possible future where governments are taking a pro-active stance to meet the FHCI needs of beneficiaries to offset the decline from donor funding.

Finally, in this fiscal space analysis for Sierra Leone particular attention will be made to the high level of OOP expenditures. These are projected although not included within the scenarios (as they are not official expenditures). Currently OOP payments are above 60% of THE in Sierra Leone. The World Health Report of 2010 stated that: *It is only when direct payments fall to 15–20% of THE that the incidence of financial catastrophe and impoverishment falls to negligible levels*[7]. We will assess what this will mean for FHCI and UHC.

[7] WHO (2010), Health Systems Financing: The Path to Universal Coverage, World Health Report 2010 (Geneva: WHO).

3 Why invest in health and what is fiscal space?

The commitment to achieving sustainable health outcomes takes place within a context in which low- and middle-income countries face the compounded challenge of epidemiological transition, an increasing availability of effective but expensive medical care, and changes in the demand for and expectations regarding health services. This is made all the more difficult in a climate of competing interests as countries seek to scale-up their efforts to achieve the Millennium Development Goals (MDGs) as well as by the slowing down of development partner support in the wake of the global economic crisis.

This chapter will consider the argument that to invest in health is to invest in a productive sector that will lead to greater economic growth potential. Thereafter, it will discuss the concept of 'fiscal space' and how to achieve it, as well as the literature that argues why it is necessary to increase fiscal space for health.

This is particularly relevant for Sierra Leone which has a high proportion of health care paid from households' OOP; over 60% in 2013. The World Health Organisation (WHO) has found that: "*Out-of-pocket payments for health can cause households to incur catastrophic expenditures, which in turn can push them into poverty. The need to pay out-of-pocket can also mean that households do not seek care when they need it*"[8]. Health security is therefore a priority in a country with 53% of the population living below the poverty line in 2011[9]. With such a large portion of the population at risk of Catastrophic Health Expenditures (CHEs) creating a more sustainable health financing system will be essential for pro-poor growth and development of the economy.

3.1 Healthier is wealthier

It has become a common sense notion that the wealthier a country becomes the healthier its people can be. In economics this has been demonstrated by Preston in 1975 and Pritchett and Summers in 1996.[10] The resultant policy implication of this is to invest in productive sectors for economic growth and thereafter the resources will flow for health care provision. Health was traditionally seen as a moral issue rather than an economic one; however, more evidence is being found to refute this and instead turning it on its head to suggest that investing in health creates wealth. In this light, improving health outcomes can be seen as a productive endeavour resulting in a more prosperous economy and increased growth rates.[11]

Recent findings published in The Lancet suggest that returns to investing in health are substantial: "*reductions in mortality account for about 11% of recent economic growth in low-income and middle-income countries*".[12] Thus, investing in health is not simply a moral imperative for a society. Indeed, the World Banks' World Development Report 1993 showed "*that well-chosen health expenditures were not an economic drain but an investment in economic prosperity*".[13]

The cost of not investing in health can be viewed through the variations in life expectancy across countries. The difference in life expectancy between Sub-Saharan Africa (SSA) and high-income countries is almost 30 years: an average of 52 years in SSA versus 80 years in richer economies. Table 1 selects a few high income, middle income and low income countries to compare. It is clear that there is a relationship between income and life expectancy; in general, there is a positive

[8] http://www.who.int/health_financing/catastrophic/en/
[9] World Bank Development Indicators Database
[10] Pritchett and Summers (1996).
[11] This section draws from Baker (2008) and IMF (2014).
[12] Jamison and Summers (2013), page 1898.
[13] Ibid page 1899.

correlation, i.e. as one rises so does the other. How does this link to economic growth, and causality in the health is wealth debate?

- **Historical case studies** have shown that health and nutrition improvements accounted for 30% of GDP growth in Britain from 1780 to 1979.[14]
- **Microeconomic studies** find evidence for better health being associated with higher incomes. They show that adult worker productivity and childhood educational attainment, cognitive function and years of schooling are all correlated with future earnings. For example, in Indonesia a 1% increase in height was associated with a 5% increase in earnings in adult men".[15]
- **Macroeconomic analysis** across countries suggests that between 1970 and 2000 11% of economic growth in low and middle income countries were due to reductions in adult mortality.[16]

The Lancet summarises this evidence by saying: "*The totality of this new evidence points to an important major conclusion. In the allocation of finite budgetary resources, making the right investments in health improves social welfare and stimulates economic growth*".[17] A secondary key point here is the phrase 'the right investments in health'. As we see from Table 1 within income levels there is variation of health achievements (as measured by life expectancy); i.e. a higher income does not automatically result in better health outcomes, and improved health outcomes (years) does not necessarily equate to higher income status. Sierra Leone is a case in point with a low income per capita of around 660 USD it manages to provide health services for the population resulting in an average life expectancy of 46 years. Compare this with Nigeria which has an average life expectancy of 53 but has around 3,000 USD per capita, or with Ethiopia which has a lower income per capita (500 USD) but achieves greater success for health with a life expectancy of 60 years.

Table 1: Variation in Life Expectancy across Countries

	Population (Million People)	Income per capita ('000 USD)	Life Expectancy (Years)
France	66	44	82
Japan	127	38	85
Cuba	11	6.5	79
Thailand	65	5.7	75
Nigeria	183	3.0	53
Sierra Leone	**6.5**	**0.7**	**46**
Ethiopia	90	0.5	60
DRC	71	0.4	47

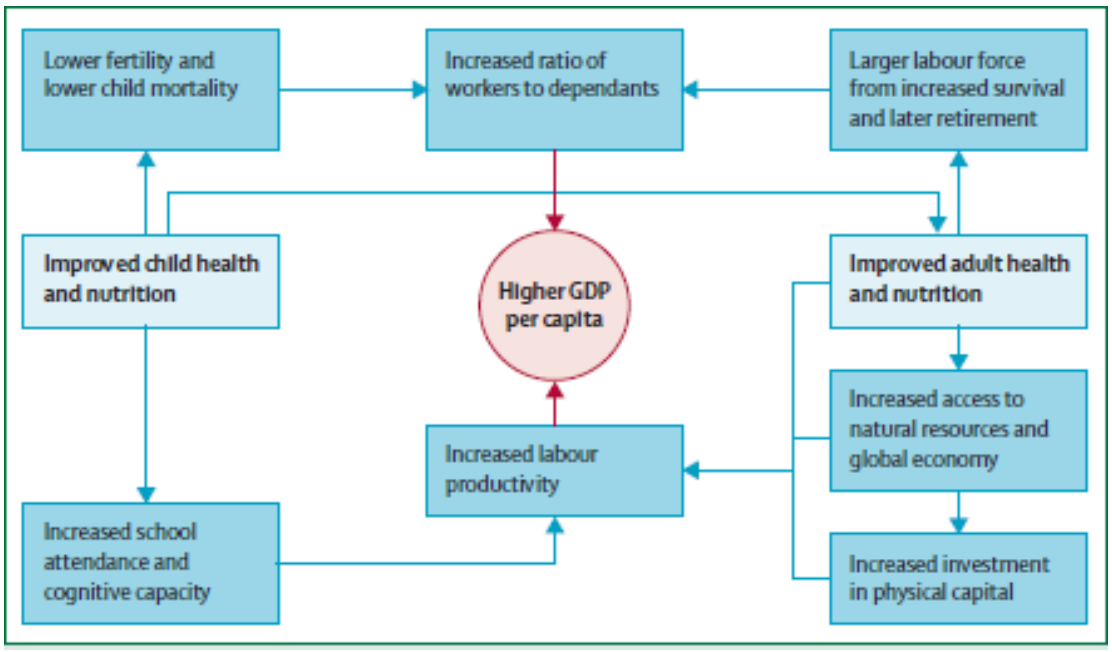
Source: Income per capita - IMF; Life Expectancy - WHO; Population – UN.

Health can improve the growth prospects of a country for a number of reasons. A simplified overview of economic and health inter linkages can be seen in Figure 2. Below we discuss three

[14] Fogel cited in Jamieson and Summers (2013).
[15] Various research cited in Jamieson and Summers (2013)
[16] Ibid.
[17] Jamieson and Summers (2013) page 1913.

further elements where health can improve economic growth, namely: it can be politically stabilising; can raise productivity; and provide positive macroeconomic externalities.

Figure 2: Links between Health and GDP per capita



Source: Jamison and Summers (2013)

Health can help build social cohesion and politically stable societies. Without the state delivering basic health services trust is eroded and this can lead to instability. Di John argues that "*taxation binds the state with interest groups and citizens … [and] legitimacy comes in large part from government delivery of services that people want and need*.[18] This 'fiscal-social' contract therefore requires the state to deliver health needs to the population and citizens to pay taxes for these services. Examples such as the recent Ebola outbreak attest to public health crises being a threat to peace and security. However, other positive examples show that with the right governance, government can motivation citizens and businesses can voluntarily pay taxes for government-led initiatives, and these in turn have led to more profitable outcomes for all[19].

A healthier workforce can raise productivity. Health can be viewed as a form of human capital, like skills, as health is a basis for determining the value of labour. Thus, to raise health levels can increase productivity. This is especially important when considering that 60% of all Disability-Adjusted Life Years (DALYs) in Sierra Leone are due to communicable diseases.[20] So, treatment for communicable disease will have a greater impact than simply the productivity of one employee if it is preventing transmission to other employees. The World Health Organization (WHO) Commission on Macroeconomics and Health estimates that focused health services costing 27 billion USD a year could yield increased economic output worth 186 billion USD a year.[21] Indeed, many diseases have been viewed as a threat to economic performance and so treatment was provided. For example:

[18] Di John (2009), pages 110-111.
[19] Di John (2008) – see example of Brazil.
[20] DALY is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death.
[21] See: www.who.int/trade/glossary/story008/en/.

- A cost–benefit analysis showed that the overall financial benefits of running an HIV workplace programme in Zambia outweigh programme costs by three times on average;[22]
- On a Kenyan tea estate after 12 months on antiretroviral drugs, employees worked at least twice as many days in the month that they would have in the absence of such drugs;[23] and
- Iron supplements improved workforce participation, productivity and earnings in Indonesia.[24]

Macroeconomic externalities such as higher savings rates and foreign direct investments (FDI). As health improves so too do life expectations, as such people need to save more for longer retirements. This makes them more productive over a longer lifespan and raises the national savings rate, which can improve investment and growth. A healthier workforce can also attract FDI that can bring in new technology, increase trade and contribute to job creation[25].

In conclusion, it must be realised that investment in health can be a critical investment in the economy, as well as for society. Budgeting decisions for the health sector must include discussion of DALYs and productivity at a minimum. Further research into the costs and benefits of health on the Sierra Leone economy can be carried out and used as evidence to support greater budgetary allocation to health, and for children under five and pregnant and lactating women specifically. The idea of opening fiscal space for health is described in the remainder of this chapter.

3.2 Defining fiscal space[26]

'Fiscal space' is a relatively new term that, in its broadest sense, refers to 'the capacity of government to provide additional budgetary resources for a desired purpose without any prejudice to the sustainability of its financial position'.[27] It refers to the effort to create room within the budget for additional spending while at the same time not jeopardising the fiscal stability of the economy.

The concept has come to the fore in the debate regarding what constitutes sound fiscal discipline. It is often an argument for increased prioritisation of spending on areas that have not traditionally been viewed as prudent investments when governments are attempting to improve their financial wellbeing. The argument is that 'fiscal space' should be created for such investments because spending in these areas creates productive assets that pay for themselves over the long term. Financing infrastructure projects through additional borrowing is one such example. Another is increased outlays for health and education, where spending is considered an investment in the future that will eventually pay for itself through higher returns to human capital.[28]

For some, 'fiscal space' is defined less in terms of the emphasis on the 'gap' or 'room' in the budget for 'additional' spending and more in terms of political economy factors. They define fiscal space as '*the financing that is available to government as a result of concrete policy actions for enhancing resource mobilization, and the reforms necessary to secure the enabling governance, institutional and economic environment for these policy actions to be effective, for a specified set of development objectives*'.[29] Thailand is an example of a country that has used well-targeted public investment and human development-related spending as the main drivers of fiscal expansion. The Thai government was able to take a long-term view that facilitated both the implementation of

[22] Kelly and Allison (2009).
[23] Larson et al. (2008).
[24] IMF (2014).
[25] Ibid, and Jamieson and Summers (2013).
[26] The literature review and findings on fiscal space are from work carried out by Paul Booth.
[27] Heller (2006).
[28] Heller (2005).
[29] Roy et al. (2007).

policies that secured fiscal sustainability as well as supporting a significant permanent increase in per capita public spending.

3.2.1 What are the sources of 'fiscal space'?

There are five sources through which a government can expand fiscal space, but it must do this without compromising either macroeconomic stability or fiscal sustainability. It must ensure that in creating fiscal space it has the short-term and longer-term capacity to finance its desired expenditure programmes while at the same time being able to service its debt. The five sources for expanding fiscal space are:[30]

1) Official Development Assistance (ODA) (through aid and debt relief);
2) Domestic revenue mobilisation (through improved tax administration or tax policy reforms);
3) Deficit financing through domestic and external borrowing;
4) Reprioritisation and improvements (efficiency savings) in expenditure efficiency; and
5) Monetary expansion (printing money) to finance public programmes.

Thus, there are a variety of ways that governments can increase 'fiscal space'. The decision about how to do so is a policy choice dependent upon how consistent that source is with the country's macroeconomic fundamentals. The choice is inherently country specific. It requires '*detailed assessments of a government's initial fiscal position, its revenue and expenditure structure, the characteristics of its outstanding debt obligations, the underlying structure of its economy, the prospects for enhanced external resource inflows and a perspective on the underlying external conditions facing an economy*'.[31]

3.3 Increasing fiscal space for health

3.3.1 Why increase fiscal space for health?

McIntyre and Meheus provide a compelling argument for why governments should increase fiscal space for health (and other social services) in a recent paper.[32] In it they argue, firstly, that UHC is the primary global health policy agenda, requiring that governments provide universal access to health services, that health services be of adequate quality and that populations have financial protection from the potentially catastrophic costs of using these services. Member states of the WHO, of which Sierra Leone is one, have committed to realising the goal of UHC. In World Health Assembly Resolution 58.33 (2005), WHO member states also committed to expanding Social Health Insurance (SHI), Universal Coverage and to providing protection from catastrophic costs of health financing.

Secondly, McIntyre and Meheus argue that of the four dimensions of sustainable development identified by the UN System Task Team on the Post-2015 UN Development Agenda, two are intricately related to health: namely, inclusive social development and inclusive economic development. '*Ensuring that people's rights to health and education, including through universal access to quality health and education services, is vital for inclusive social development*' and requires investment to '*close the gaps in human capabilities that help perpetuate inequalities and poverty across generations*'. Moreover, '*Inclusive economic development similarly requires*

[30] Heller (2005), Heller (2006), and Roy et al. (2007).
[31] Heller (2006).
[32] McIntyre and Meheus (2014).

investment in people's capabilities through public spending on social services, particularly health, education and nutrition'.[33]

Thus, both the health policy focus on UHC and the broader post-2015 sustainable development goals discussions call for increased government funding of health and other social services.

3.3.2 How – theoretically – can governments increase fiscal space for health?

Tandon and Cashin (2010)[34] build on Heller's fiscal framework to outline five ways through which to generate fiscal space for health. This section will briefly explore each of the five options in turn:

1. Conducive macroeconomic conditions, in particular GDP growth and tax revenue;
2. Prioritising health within the government budget;
3. Taxes earmarked for health and other health sector-specific resources;
4. External grants for health; and
5. Efficiency improvements in the health sector.

Notice that borrowing (from both domestic and foreign lenders) and the printing of money (monetary expansion) have been removed from this framework. The full reasoning will be discussed later in this report but in generally if a country is near to its debt sustainability threshold then it would not be advisable to borrow.

1. Conducive macroeconomic conditions – This refers to opening fiscal space through additional national income generated by improved economic growth (GDP growth), through additional revenues raised by increasing taxes or through improving tax collection, or through reduced levels of fiscal deficits and debt.

A sustained high level of economic growth is a significant factor as, although health might for example remain unchanged at a certain share of GDP (e.g. 5%) year on year, GDP growth (of, for example, 7.5%) means that government spending on health will remain at the same proportion of the budget (i.e. 5%) but that the financial allocation toward health will increase by 7.5%.

Domestic revenue mobilisation refers to generating additional revenue by increasing taxes or improving tax collection. For countries with low ratios of government revenue to GDP, broadening the tax base and improving tax administration in order to raise the revenue share in GDP are likely to be important objectives. For low-income countries, a tax ratio of 15% of GDP should be seen as a minimum objective.

2. Prioritising health within the government budget – A second source of fiscal space for health is for the health sector to receive greater prioritisation within the overall government budget by receiving a larger share of government spending. In general, cross-country comparisons show a wide variation in government spending on health, even among countries with a similar income[35]. Although other factors such as donor contribution and budget absorption rates have an impact on public health spending, the share of government expenditure allocated to health is widely seen to be an expression of the priority given by governments to health.

The allocation of the budget is a highly politicised process and decision-makers are faced with competing needs for which compelling cases are being put forward. Arguing for a reallocation of a

[33] McIntyre and Meheus (2014) with reference to UNDP (2013).

[34] This section draws heavily on the following articles: Heller (2006), McIntyre and Meheus (2014), Tandon and Cashin (2010) and Powell-Jackson et al. (2012).

[35] Powell-Jackson & McIntyre (2012).

larger share of the budget to health is therefore typically not an easily attained source of fiscal space in most countries.

Cross-country comparisons, particularly where the share of health in the government budget is lower than in comparison to countries in the region with similar income levels, provides a powerful advocacy tool for raising health's share of overall government spending, as does a fiscal space analysis that demonstrates the need and potential impact of increasing the share of public resources devoted to the health sector.

3. Taxes earmarked for health and other health sector-specific resources – Earmarking taxes for health is another method through which to create fiscal space for health. Earmarking can involve dedicating an entire tax to fund a particular programme (e.g. a dedicated payroll tax to fund SHI) or setting aside a fixed portion of a particular tax to fund the programme (e.g. a fixed proportion of general tax revenues being allocated to the health budget). Regardless of the approach, their purpose is the same: to increase the resource base for public spending on health.

The levying of 'sin taxes' – taxes on goods that have adverse health effects, notably tobacco and alcohol – is another form of earmarking. Such taxes are considered justified as they represent the imposition of a consumption charges on those who use them in lieu of the costs that these products generate and the impact their use has on society beyond those who simply consume them.

SHI can provide another source of health sector-specific fiscal space. SHI collects mandatory financial contributions from designated segments of the population, typically through payroll taxes, and pools these contributions in independent funds to pay for services on behalf of the insured to finance public health care and to improve financial risk protection.

Despite their benefits, earmarked taxes create significant economic rigidities and may in fact 'crowd out' other expenditures. What is more, earmarking is often viewed as imposing an unnecessary constraint on fiscal policy-making, one that reduces flexibility and allocative efficiency. Thus, while it is not unusual that calls be made to introduce earmarked taxes as a way to insulate health spending from other competing publicly funded activities, these calls are generally supported by political rather than economic arguments.

4. External grants for health – ODA provides an additional source of fiscal space. In the effort to achieve the MDGs, many developing countries have come to rely on such support. The challenge with ODA, however, is that only a sustained and predictable flow of grants can create the potential for a scaling up of expenditure that can be maintained by the recipient government beyond the expiration of the ODA. Most development partners are unwilling to commit to funding beyond a one- or two-year timeframe. This uncertainty, coupled with concern about exploiting readily available but short-term ODA, rightly discourages recipient countries from accepting such funds to scale-up programmes, particularly where such programmes have high costs of downsizing (e.g. antiretroviral treatment).

Moreover, the experience of many countries is that grants can be highly volatile, as a consequence not only of donor decisions and bureaucratic processes but also due to policy slippages by recipient governments. As Tandon and Cashin put it, '*Volatility and unpredictability of aid flows increase the risk of establishing services that cannot be sustained if aid flows are drastically reduced or discontinued, and temporary changes in relative prices may have long-term effects such as driving some private suppliers from the market*'.[36] The decline in development partner

[36] Tandon and Cashin (2010).

support since the great recession is already hampering the current ability of countries to finance the continued acceleration of programmes.

A key issue in the debate about ODA as a source of fiscal space for health is whether it is in fact additional or if it merely displaces or offsets domestic health sector resources: '*A study of sources of health funding for 144 countries between 1995 and 2006 showed that a 1% increase in donor funding was associated with a 0.14% decrease in government spending on health among low-income countries, independent of changes in per capita GDP*'.[37]

Moreover, off-budget ODA support has some benefits but these are outweighed in the eyes of the recipient country by being difficult for ministries of health to ensure that funding flows to nationally prioritised health programmes.

Finally, there are potential macroeconomic consequences that may arise from a significant scaling up in absorption of external resource inflows that have risks for inflation and which may hamper a recipient country's international competitiveness. Thus, while attractive, the fiscal space opportunities offered by ODA might be less attractive than they appear on the surface.

5. Efficiency improvements in the health sector – Fiscal space created through efficiency improvements can take a variety of forms, including increasing the efficiency with which services are delivered or transfers targeted, introducing policies that reduce corruption and improve governance, and achieving greater alignment and harmonisation of donor resources. Within health spending the most commonly recommended areas for improving allocative efficiency are:

- Improved geographic targeting using resource allocation formulas that reduce spending gaps across regions and the typical bias of spending toward urban areas;
- Changing the allocation of spending across care levels;
- Targeting specific programmes that yield high returns to spending; and
- Aligning government health expenditures to identified health needs and strategic plans.

Other common sources of inefficiency include: rigid public finance systems that have inadequately flexible funds and impede the reallocation of funds to the areas of highest need; imbalances in input use and uneconomical inputs (e.g. overpriced drugs), particularly excessive expenditures on wages; corruption; a low capacity to utilise existing funds; the weak management capacity of decentralised units; and leakages from the system, including absenteeism among public sector workers.

In sum, the five sources for generating fiscal space for health should not be regarded as independent of each other. Interactions between all five are possible – for example, external grants for health may encourage a government to spend less of its own resources on health, or with matched funding it could increase government's commitment.

3.3.3 How – *practically* – are governments to increase fiscal space for health?

If governments are to generate fiscal space for health, how are they to go about doing so? The first thing to note is that it is only sources 4 (external grants for health) and 5 (efficiency improvements in the health sector) within Tandon and Cashin's fiscal framework model that are within the sole, respectively indirect and direct, sway of the Ministry of Health[38]. That the three remaining sources for generating fiscal space – 1 (conducive macroeconomic conditions), 2 (prioritising health within

[37] Tandon and Cashin (2010) referencing Farag et al. (2009).
[38] For external grants this is when those committed grants are disbursed and flowing through the MoH budgetary system as per treasury funds. Not before.

the government budget) and 3 (taxes earmarked for health and other health sector-specific resources) – fall within the remit of the Ministry of Finance means that the Ministry of Health must become adept at lobbying the Ministry of Finance with a strong case for increased spending on health. To achieve this will require an understanding of how the Ministry of Finance both considers fiscal space and of how it understands each of these three sources.

With this in mind, it is not encouraging that it has been observed that ministries of health often do not present a very convincing case to ministries of finance as to why the health sector needs more government resources. It is also not encouraging to learn that *World Health Report 2010* argued that ministries of health need to learn the language of economists. Both of these areas will need to receive attention for health ministries to become adept at successfully lobbying for increasing resources for health.

Also key in this regard, the literature suggests, is having the credibility that comes with a record of good governance, good past and present performance in public expenditure management and high absorption capacity during implementation.[39]

3.4 Increasing fiscal space for health – to what level?

One of the commonly cited constraints to achieving health outcomes is '*a lack of adequate and sustained levels of resources*', particularly in low-income countries.[40] While the temptation is to generate fiscal space for health by arguing for the proportion of government spending allocated to health to be increased it is first necessary to consider what might constitute a fair share of government resources to be dedicated to health services. This requires considering, first, what level of government expenditure on health countries should be aiming for.

The proportion of government expenditure allocated to health in low-income countries (using data from 2007) ranges from 1.1% in Pakistan to more than 15% in Rwanda.[41] This broad range thus provides little guidance.

Williams and Hay (2005) provide a simplistic but highly useful 'back-of-the-envelope calculation' for assessing fiscal space available for health. In most low-income countries, government expenditure rarely exceeds 30–35% of GDP. We have also seen that the allocation of government spending on health tops at around 15%. Together, spending 15% of 30–35% of GDP equates to government spending of 4.5% to 5% of GDP.

Although a 'back-of-the-envelope calculation' is not an adequate basis upon which to determine the allocation of a significant proportion of government spending, it does provide a useful approximation. Were government health spending levels to reach the maximal amounts observed across countries this simplistic calculation provides us with 'upper bounds' for the magnitudes of increases that are feasible, especially in the short to medium term. Such 'upper bounds' would be 4.5% to 5% of GDP.

A recent exhaustive review and analysis by McIntyre and Meheus (2014) seeks to establish more firmly grounded targets for the proportion of government spending to be allocated to health. According to their framework, '*Countries should strive over time to achieve government health spending levels of at least 5% of GDP, supplemented by a minimum target of $86 per capita government and donor funding in low-income countries in order to ensure basic PHC [primary health care] services in cases where meeting the 5% target alone would be insufficient*'.

[39] Powell-Jackson et al. (2012).
[40] Tandon and Cashin (2012).
[41] Ibid.

McIntyre and Meheus take as their basis for this 5% target the following results of their analysis:

- Significantly improving health status indicators (e.g. reducing the average infant mortality rate to 10 per 1,000 live births) requires government spending of more than 5% of GDP.
- Reducing financial catastrophe and impoverishment to negligible levels generally requires limiting OOP payments to 15–20% of THE, which, in turn, requires government spending to exceed 5% of GDP.
- Promoting access to needed health care (using as proxies: 90% immunisation coverage, 90% of deliveries by skilled birth attendants and a global average of 44 core medical professionals per 10,000 population) requires government spending of at least 5% of GDP.

McIntyre and Meheus also quote World Heath Report 2010, noting that 'it is difficult for countries to get close to universal [health] coverage at less than 4–5% of GDP, although for many low- and middle-income countries, reaching [even] this goal is aspirational in the short term and something to plan for in the longer run'.[42]

While setting a target of government spending *at least 5% of GDP on health*, the authors are quick to note that the amount of 86 USD per capita will fund an almost (though not fully) comprehensive minimum level of PHC services but only if the 86 USD is devoted fully to PHC services '*(and not, for example, spent on high-cost tertiary services) and if these limited resources are used efficiently*.'

Moreover, the authors note that no low-income country and a significant number of lower-middle-income countries that devoted 5% of government spending to health could afford the minimum resource requirement of 86 USD per capita that it would take to fund basic PHC services for the entire population.

Finally, the authors make the point that were low-income countries to fund government spending on health at a level of 86 USD per capita from entirely domestic government sources, this would account for an average of nearly 15% of GDP. Such a level is '*clearly unrealistic*'.[43]

The implication of this is that, if countries are able to meet the target of domestic public spending on health of 5% of GDP and that this then exceeds 86 USD per capita of government spending on health, then countries will be able to gradually increase the range of health services provided to their populations, since the 86 USD per capita threshold is for providing 'an almost (though not fully) comprehensive minimum level of PHC services'.

It also, by implication, returns us to the conclusion that the five sources for generating fiscal space for health should not be regarded as independent of each other and should be employed in tandem because where government spending on health remains below the 86 USD per capita threshold considerable development partner support will be required to enable countries to meet the 86 USD 'government and donor funding' per capita target. This, as McIntyre and Meheus note, is in line with recommendations for increased development aid for countries to achieve the minimum targets made by both the 2001 Commission on Macroeconomics and Health and the 2009 High-Level Taskforce on Innovative International Financing for Health Systems.

[42] WHO (2010).
[43] McIntyre and Meheus (2014).

4 Economic Trends and Outlook

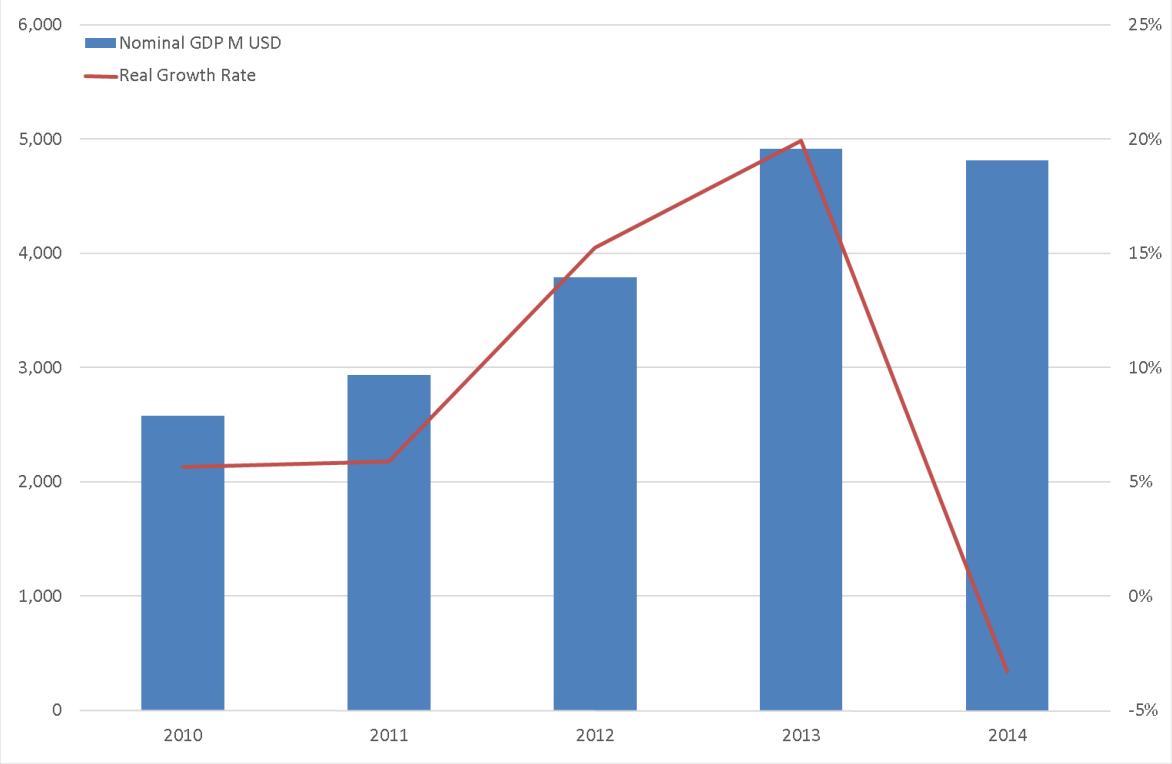
This chapter provides an overview of the macroeconomic context, the tax capacity and underlying health trends as a background to the prospects for domestic financing of FHCI and UHC.

4.1 Macro

Sierra Leone has experienced sharp real growth over the past five years averaging 8.7% pa from 2010 to 2014. Despite recent double digit growth and the per capita income rising from 450 USD in 2010 to around 800 in 2013 Sierra Leone remains a low income country with a declining per capita income in 2014. As Figure 3 shows economic growth has dropped sharply in 2014 as a result of the Ebola outbreak and the drop in international mineral prices – especially iron ore[44]. Indeed, these twin shocks are estimated to have reduced economic growth by even greater degrees in 2015.

Economic activity is projected to rebound in 2016 as the Ebola epidemic is overcome. However, this will be limited as the mineral and mining sector in Sierra Leone has serious production constraints[45]. Iron ore mines have been closed (as low international prices make production unprofitable), and all other mining exports have declined due to slowing international demand and prices (diamonds, bauxite and rutile being the other main mineral exports).

Figure 3: Economic Growth (Nominal GDP M USD and Real Growth Rate)



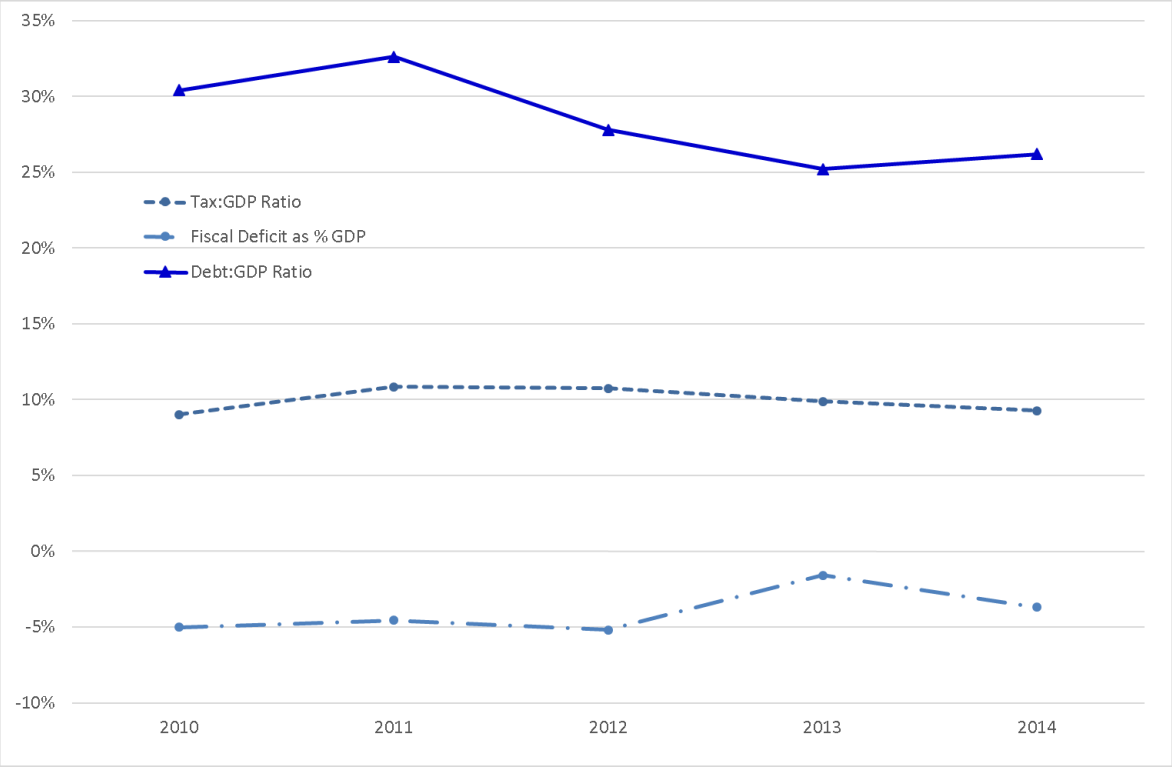
Source: IMF

The sector has a wider impact on the economy and raises particular difficulties for government revenues (in addition to the Ebola epidemic). Tax revenues have declined directly through falling mining royalties (which are based on export values), and some mining companies are also struggling to pay income taxes. Indeed, the tax to GDP ratio – as shown in Figure 4 – had been

[44] IMF Article IV November 2015.
[45] Mining information comes from meeting with Bank of Sierra Leone, and IMF Article IV text.

rising from 9% in 2010 to 11% in 2012, but has now returned to 9% by 2014. Estimates for 2015 suggest the ratio to remain at around 9% of GDP[46]. The domestic tax collection in Sierra Leone is low compared to other low income countries which averaged 12% of GDP in 2011[47].

Figure 4: Macroeconomic Indicators as Proportion of GDP



Source: IMF

The Government's fiscal situation has been constrained through declining revenues from mining and increased expenditures due to the Ebola crisis. The weak economic performance has added pressure to the fiscal deficit in 2014 – which was previously improving prior to the twin shocks - and this is expected to widen further in 2015 and 2016, it currently stands around 5% of GDP (see Figure 4. There is also pressure on the debt to GDP ratio and although expected to rise the ratio should remain under the recommended limit of 40% of GDP.

This macroeconomic environment is expected to be further complicated by rising inflation over the next few years, (which had recently been brought down to single digit levels). In sum the Government has a challenging fiscal position to contend with. Fiscal space will be tight and much required tax reforms are being undertaken to mobilise the domestic tax revenues for the rebuilding of the economy[48]. However, these systemic changes can take many years to bring in the increased incomes required.

4.2 Tax Capacity

The UN estimates that to achieve MDGs domestic revenue collections needs to be at least 20% of GDP[49]. The OECD states that the average Tax:GDP ratio for fragile states is only 14%[50]. Sierra Leone is still lower, with a ratio of 9.2%. The problem for Sierra Leone is that is has relied heavily

[46] IMF Article IV Nov 2015.
[47] World Bank Development Indicators.
[48] From meeting with National Revenue Authority.
[49] Quoted in OECD report (2014), page 11.
[50] Ibid, page 11.

on one income source, namely, mining / non-renewable natural resources[51]. Now the international prices have fallen tax collection has suffered and needs to diversify. The National Revenue Authority (NRA) in Sierra Leone are considering a number of ways to diversify. In doing so they are also attempting to foster sustainability and strengthen state-society relations; for example, media campaigns to highlight benefits of paying taxes etc. Three important tax policy changes have been put in place in 2016[52]:

- Eliminating subsidies for consumer purchases of petrol;
- Increase the top income bracket tax rate from the current 30% to 35%; and
- Eliminate discretionary waivers and exemptions from custom duties and goods and services tax.

Additionally, NRA are concentrating on middle income earners and mid-sized companies, in an effort to cover the previous over-reliance on large mining companies[53]. And, increasing the enforcement of existing tax laws such as landlords' payment of rental tax, and international staff to pay income tax. The NRA are also improving its IT systems creating a more integrated tax payment system and online payment of taxes. These are both expected to raise tax compliance. These measures are expected to cover the mining shortfall, but they do not necessarily result in a long term growth in the tax:GDP ratio.

Table 2 shows the extent of the poor tax collection performance in Sierra Leone. A number of indicators relating to tax performance in Sierra Leone are shown and compared to other low income countries, as well as middle income countries (which Sierra Leone aspires to). The first straightforward indicator is the tax to GDP ratio which currently stands at 9.2%. This is low compared to other low income countries where the average is 17%. This suggests there is fiscal space within Sierra Leone to grow towards low income levels of taxation. A greater deal would have to be done to transform the taxation system into one which could collect taxes to a middle income country – 24%.

However, Sierra Leone's income per capita is much lower than the low income average: 513 USD compared to 2,169 USD (2005 PPP). Therefore. it is important to look at the next two indicators in the table, tax effort and tax capacity[54]:

- Tax capacity is a measure of the maximum level of tax revenue that a country can achieve, (compared to peers and within confines of economic structures etc.).
- Tax effort is the ratio between actual revenue collected and the implied tax capacity.

These two indicators can inform the debate surrounding adding new taxes or rising existing rates. If a country is far from its capacity then there is room for increasing taxes, widening the tax base, or adding new taxation mechanisms. If near then the focus should be moved to improving quality, or mild rises in rates.

What does this mean for Sierra Leone? Table 2 gives the average tax capacity and tax effort for low and middle income countries. If we assume Sierra Leone has a similar tax effort to other low income countries – 0.65 – then the tax capacity of Sierra Leone is 14%. This suggests that the economy can withstand an additional 4.8% more taxation. This is a lower range estimate as the table suggests most low income countries have the capacity to reach a tax:GDP ratio of 26% rather than the effort they put in to achieve 17%. If Sierra Leone could implement strong tax

[51] This section draws from the OECD (2014) findings and interviews with the NRA Sierra Leone.
[52] Cited in IMF (2015), page 13.
[53] Interview with Deputy Commissioner, NRA.
[54] This section draws from AFDB (2010) and Fenochietto, R. and Pessino, C. (2013).

reforms to increase taxes, widen the tax base and ass new tax mechanism then they could possibly move towards the low income averages.

Table 2: Sierra Leone Tax Collection Performance Compared to Low and Middle Income Country Averages

	Sierra Leone	Low Income Countries[1]	Middle Income Countries[1]
Tax Revenue : GDP	9.2%	17.0%	24.1%
GDP per capita (2005 PPP)	513	2,169	10,554
Tax Effort	0.65[2]	0.65	0.64
Tax Capacity	14.0%	26.0%	37.3%

Source: Fenochietto, R. and Pessino, C. (2013), Sierra Leone is Authors' calculations.
Notes:
1. These are a selection of low and middle income countries not the global total.
2. Average for low income countries used for Sierra Leone Tax as no data for Sierra Leone in the Fenochietto report.

Sierra Leone is a fragile low income country with a vulnerable economy to external shocks - particularly with growth forecasts reliant on pick up on mining industry. And yet there is a determination to invest in tax reforms and widen the tax base as the country measures above show. Indeed, it has to, to become more self-sufficient. For health specifically, Sierra Leone has already shown strong political commitment to FHCI by adding a clause in the Finance Act of 2016 whereby a share of Withholding Taxes collected on government contracts will be set aside for FHCI. This shows there is domestic capacity to develop new taxation ideas in a tight fiscal environment.

However, much support could be gathered from development partners. An OECD report on domestic mobilisation in fragile states found that: "*Only 0.07% of ODA provided to fragile states goes to supporting tax systems*"[55]. Sierra Leone received 0.09 million USD on average over 2010 and 2011 from donors for domestic revenues mobilization[56]. This accounts for 0.06% of total donor funds in those years, in line with the fragile state average. Development partners need to consider investing in NRA and PFM in a long term capacity building process. Greater technical and institutional capacity can reduce tax evasion and avoidance. Higher domestic tax revenues will bring about the need for stronger domestic PFM. This in turn can ensure health and FHCI can be sustainably financed domestically and monitored to achieve desired outcomes. Over the longer term this type of partnership could develop into supporting Sierra Leone negotiate fairer deals with multinational enterprises especially in natural resource sector.

4.3 Government Commitment to Health Financing

Eleven years of civil war (1991 – 2002) and the 2014-2015 Ebola Virus outbreak have both contributed to collapse of Sierra Leone's health care system. Indeed, Sierra Leone's GDP per capita currently provides a lower than expected life expectancy vis-à-vis a trend line of all countries in the world[57]. With a GDP per capita of 660 USD and a life expectancy of less than 50 years, it fares badly against most other countries of this income level; Tanzania at 55 years, or Nepal with close to 70 years.

And yet this is known and health has become a budget priority throughout the near and medium term due to strong political support in Sierra Leone – particularly through the President's Free Health Care Initiative (FHCI)[58]. There are short term measures being put in place at present to help fund this; namely a specific tax for health is being proposed in the 2016 Finance Act which is currently being read in Parliament stating: "*A national health insurance levy shall be imposed at a*

[55] OECD (2014), page 12.
[56] Ibid, page 66.
[57] Ibid, page 20.
[58] Stated in numerous stakeholder meetings including the Director of Budget in Ministry of Finance and Economic Planning.

rate of 0.5% on the value of all contracts relating to the supply of goods and services in support of the Free Health Care Programme"[59]. The Abuja Declaration is also a firm goal for allocating 15% of the national budget to health in the next ten years[60]. How much revenue this will bring to the health sector and how it will be spent is yet to be realised.

An in-depth analysis of past health expenditures for general health and FHCI has been provided in the FHCI Evaluation Report. This highlights that the Sierra Leone health system is a highly dependent on non-stable and non-sustainable financing; namely, external funding and households' OOP expenditures. Indeed, the government has provided only 6.5% of Total Health Expenditures (THE) from 2008-2013, and 19% of FHCI expenditures from 2010 to 2013[61].

The 2013 NHA estimate annual OOP expenditures at 58 USD per capita and accounting for 60% of all health spending. This would account for just less than 10% of an average person's annual income. OOP payments are linked to Catastrophic Health Expenditure (CHE) and thus poverty levels. Studies show that incidences of CHEs in "*excess of 10% of household total expenditure decreased significantly from 20% in 2003 to 32% in 2011 … improvements in the supply of health services have reduced catastrophic payments [but] substantial financial barriers remain that continue to contribute to household impoverishment*"[62]. Therefore, much needs to be done to reduce the risk of CHEs to households in Sierra Leone.

The GoSL does recognize the economic benefits of investing in health and has stated health as a priority area in multiple development plans, (Agenda for Prosperity for example). The GoSL has a clear near term priority focusing on children under five and pregnant and lactating mothers through FHCI, and to then push forward over the longer term with the mandatory health insurance; SLeSHI. However, as the FHCI Evaluation Report has shown there is a lack of coordination between Government institutions and a lack of comprehension of the true costs of FCHI. These elements can impact on organisational capacities and delivery of health services. The movement of donors off-budget adds further complexities and inefficiencies to the sector. SLeSHI has been moved to the Ministry for Social Works, and the proposed Withholding tax fund comes under a multi-ministerial committee this will cause further disaggregation of power and responsibilities within the health sector. In sum, whilst there is political will to support the financing of health, there are also non-financing factors to be considered before any new financing can be fully effective.

[59] No 38 of the Finance Act 2016.
[60] Stated by the Director of Budget, MOFED, in interview.
[61] NHA for THE data and FHCI calculation estimated in Witter, S. et. all (2016, forthcoming).
[62] Edoka, I. et. al (2015).

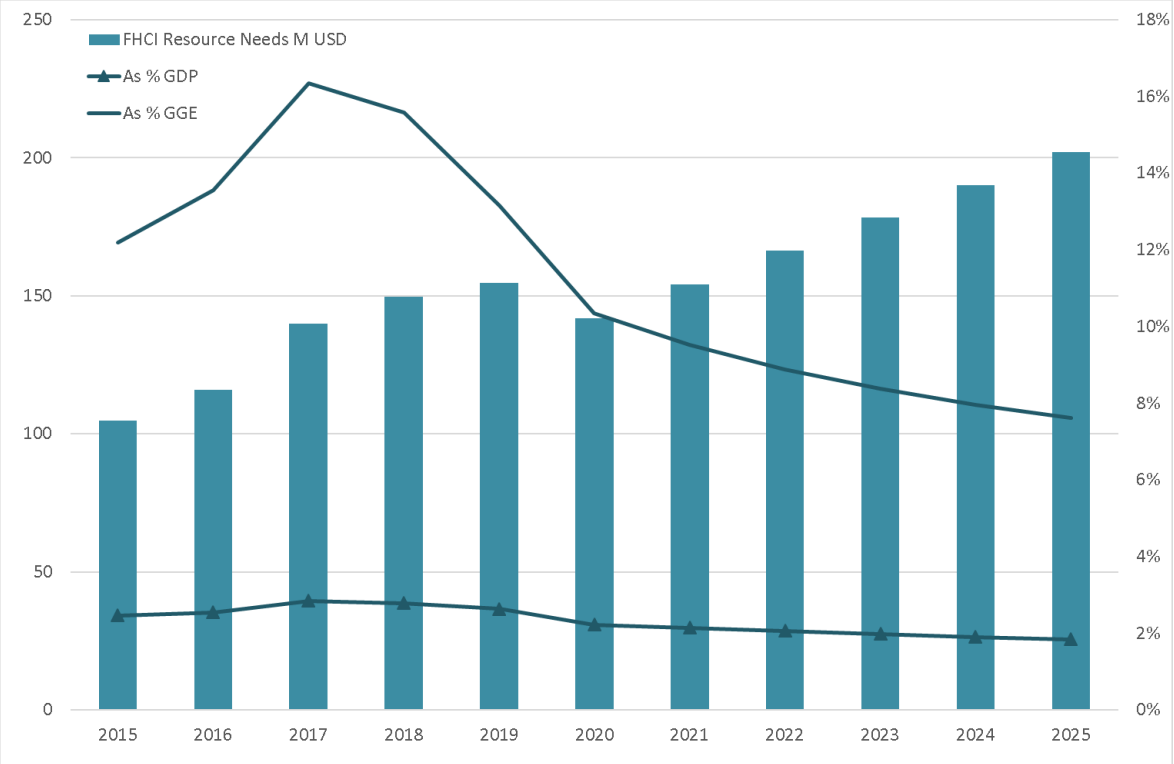
5 Gap Analysis for FHCI

This chapter provides the projections for FHCI expenditures, resource needs and the resultant financial gap over the next ten years. It will then go on to discuss a number of domestic financing options to close the gap. A revised gap after maximizing fiscal space for FHCI will provide an overview of the findings and recommendations will be made for sustainable financing for FHCI.

5.1 FHCI Resource Needs

Figure 5 provides the estimated resources required to deliver the FHCI in Sierra Leone. These average 154 million USD a year over the ten years, accounting for 2.3% of GDP and 11.2% of GGE. This would provide 70 USD per FHCI beneficiary in 2015, rising to 115 USD in 2025.

Figure 5: FHCI Resource Needs (M USD and as Proportion of GDP and GGE)



Source: 2015-2020 OneHealth Tool, 2021-2025 Authors' calculations

5.2 Available Expenditures for FHCI

This is an area of particular importance in Sierra Leone as there is a lack of general comprehension of what FHCI expenditures are. For example, a meeting with MOFED provided the first row of data in Table 3, outlining their view of what constitutes actual government funding of FHCI. This includes expenditures on drugs and medical supplies (FHCI drugs), supervision (M&E), and cost recovery (for drugs). The second row provides an estimation of government spending on FHCI if staff salaries, Reproductive, Maternal and Child Health (RMCH) activities, and any indirect or overhead costs to running the FHCI are included. Comparing these show that the MOFED calculations for FHCI may be underrepresenting the actual expenditures on FHCI by around 10 million USD a year when salary rises and capital expenditures associated with FHCI are included. This equates to 1.5% of General Government Expenditures (GGE) – i.e. the total national budget - on average between 2010 and 2013.

Table 3: Government Spending on FHCI (Millions USD)

	2010	2011	2012	2013
MOFED Quoted Actual Expenditures	1.3	1.6	1.4	3.2
Evaluation Report Estimated Gov't Exp	8.4	10.5	8.5	19.4

Source: MOFED and FHCI Evaluation Report

Whilst it is difficult to isolate these costs; for example, how to divide medical staff time between lactating mothers and other patients, or the cost of electricity for different patients is out with the scope of this report, there is a crucial budgeting and planning point to be made from this. Namely that neither the Ministry of Finance nor the Ministry of Health seem to have a strong grasp on the financing of FHCI[63]. Without knowing what level of expenditures the initiative currently consumes - regardless of a benchmark resource need - has a direct impact on the ability to plan and implement services. In turn this will adversely affect utilisation rates and so health outcomes. In essence this infers a risk to financial sustainability.

The FHCI Evaluation Report discusses much of the data issues surrounding the financing of the FHCI. Indeed, the report goes so far as to create a new methodology to estimate the costs of the FHCI as no other data was available, see second row in Table 3 (see the health financing sections in that report). Rather than re-invent the wheel this fiscal space analysis will build on this incremental-health-care-expenditures methodology where it assumes the rise in health expenditures after 2010 - the launch of FHCI – were associated with the FHCI costs. Some amendments will be made to suit our longer term view which are outlined in Annex B, Part B.4. Our methodology includes only public spending on FHCI and Official Development Assistance (ODA), what we term 'Official FHCI Expenditures'; i.e. any household OOP and private sector expenditures are not included.

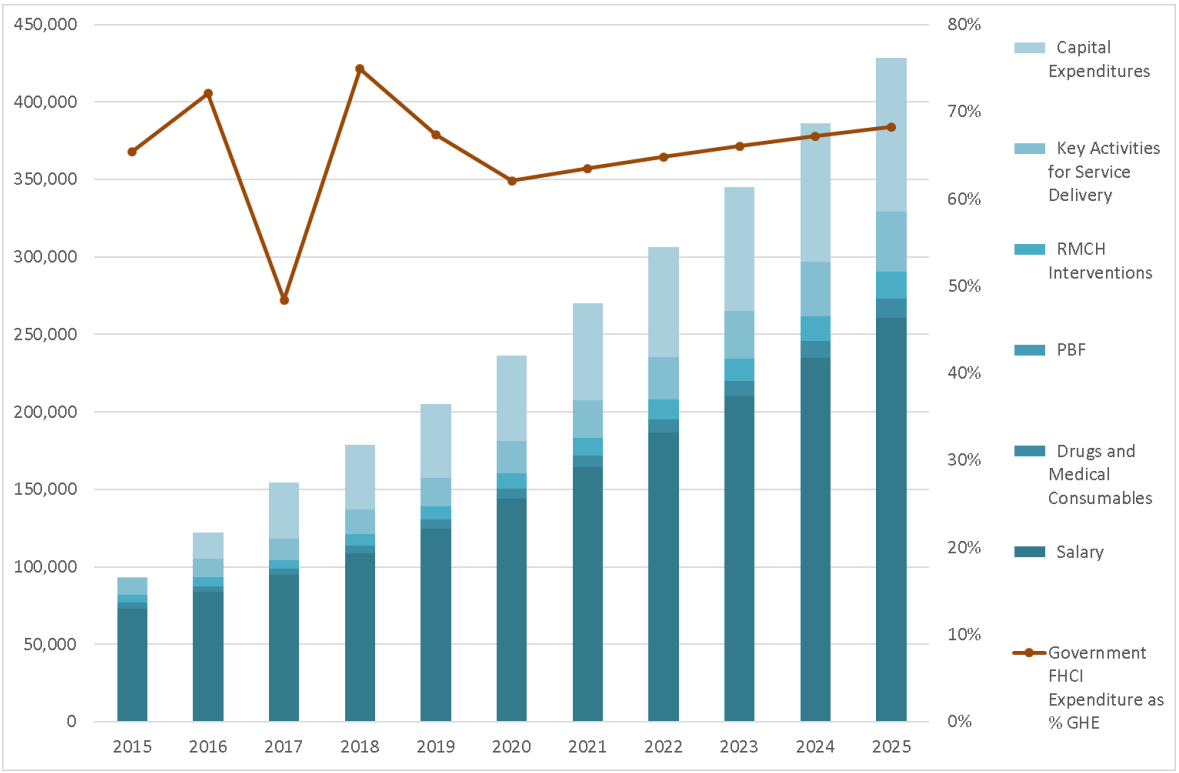
Our findings show that Official FHCI Expenditures are estimated at 97 million USD in 2015 and projected to rise to 136 million in 2025. The sector is heavily donor dependent with 80% of financing coming from external sources in 2015. The methodology assumes a slowdown in donor funds and rise in ability of the GoSL to pay for these services which results in this dependency declining to 50% by 2025. Over the ten years the official FHCI expenditures account for 1.8% of GDP and 9.1% of GGE.

Figure 6 and Figure 7 show the breakdown of FHCI for GoSL and external donors. Salaries account for the largest share in both – especially if PBF is included in the external funds. In total GoSL is projected to spend two thirds of its GHE on FHCI, and of total external funds to health around one third goes to FHCI. Whilst keeping in trend with past donor support to FHCI vis-à-vis general health support, the model expects the government to increase its support to FHCI from the current one third of GHE.

It is estimated that of the 63 USD spent per FHCI beneficiary in 2015, 12 USD comes from GoSL and 51 USD from external sources. By 2025 the total spend is projected to rise to 77 USD with 38 USD from GoSL and 39 USD from donors. This is in line with the assumptions for rising GoSL financing and slowly declining international assistance in FHCI.

[63] This was evident in multiple stakeholder interviews with MOFED and MOHS as well as other stakeholders. No-one in country was able to provide any evidence as to the financing of FHCI.

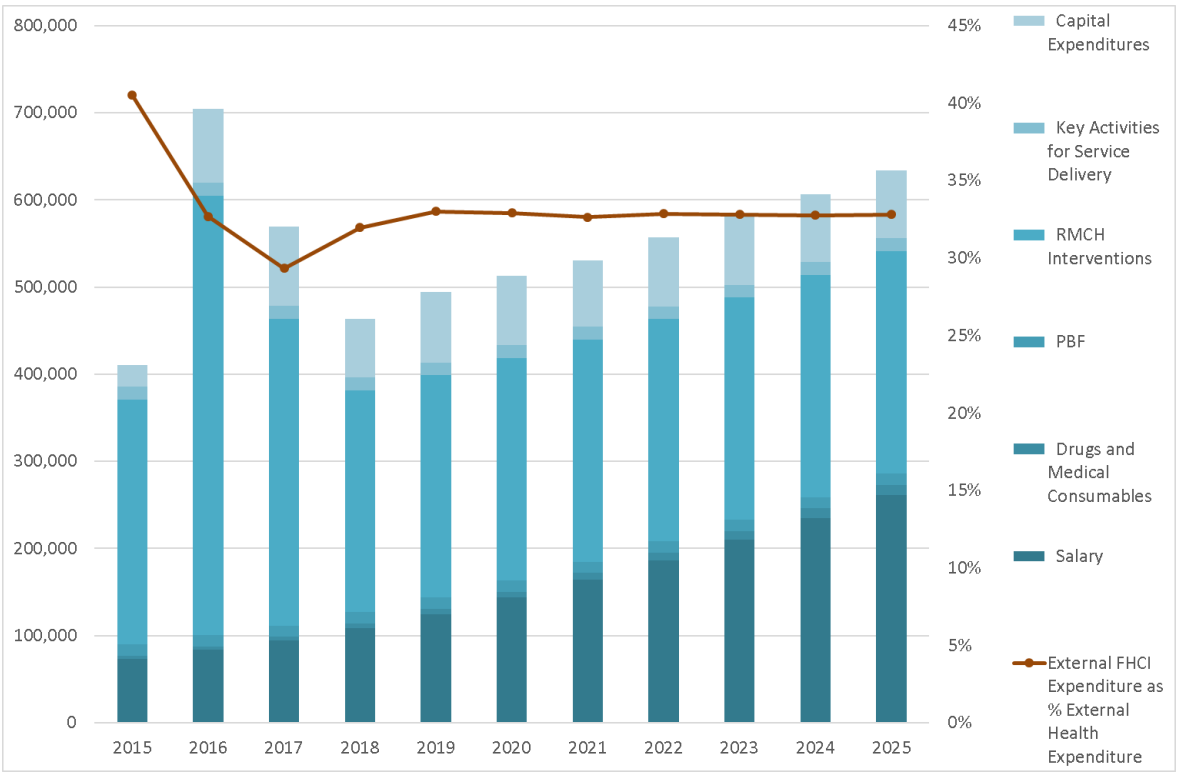
Figure 6: Government FHCI Expenditures (M Leones and as Proportion of GHE)



Source: Authors' calculations

Note: Sharp dip in proportion of funds to FHCI compared to GHE in 2017 is due to a large rise in budgeted capital expenditure for non-FHCI investment. Above trend expenditures are not projected to be sustained over the longer term.

Figure 7: Externally Financed FHCI (M Leones and as Proportion of External Health Exp)



Source: Authors' calculations

Note: Sharp dip in proportion of funds to FHCI compared to donor funds in health for 2016 and 2017 and is due to substantial rises in capital expenditures for non-FHCI health investments. Nominally there are higher than average FHCI

capital expenditures funded by donors in 2016 and 2017, hence the rise in actual expenditure. Both these above trend expenditures are not projected to be sustained over the longer term.

The premise of FHCI is that beneficiaries do not pay for their health care and so theoretically OOP payments should be nil. However, the FHCI Evaluation Report finds that in 2014 around 5% of FHCI beneficiaries were still paying for drugs and/or treatment[64]. The average paid ranges from 5,000 Leones to almost 20,000 Leones (equivalent to one to four USD). This accounts for 2 to7% of total OOP health expenditures. Unfortunately, there is not sufficient data providing a breakdown of OOP expenditures to give a picture of how FHCI impacted OOP (by patient or treatment). However, it is clear that some intended beneficiaries of FHCI continue to pay for health care that should be free. This in itself suggest the current financing levels are insufficient to meet needs and irregular unplanned expenditures are sustaining the current system. This is something the GoSL wanted to remove as a goal of the FHCI, whilst there is an improved situation it is not yet entirely achieved.

One area of doubt within external financing for FHCI is the continuance of the Performance Based Financing (PFB) from the World Bank. This is basically a salary 'top up' for Peripheral Health Units (PHUs) which is also used to cover infrastructure maintenance costs. Previously user fees would have played this role (this is discussed in depth in the FHCI Evaluation Report, Chapter 4). The World Bank and GoSL are currently negotiating a larger package of support for Sierra Leone and discussions on PBF money is included in the list of priorities GoSL and WB want to implement or fund[65]. For this reason we have included the PBF as an ongoing externally financed input to FHCI; i.e. we assume the policy is ongoing in a 'business as usual' scenario.

However, if discontinued the GoSL would need to find another two million USD a year to fund this over the next ten years; an additional 6% on top of their projected FHCI expenditures. If this was not possible and no other financing is found the consequences of losing PBF include the following:

- raises the need for PHUs to charge patients once again;
- which would most likely decrease utilization;
- this would reduce gains in health outcomes made from FHCI to date; and
- increased OOP payments would raise the chances of CHEs.

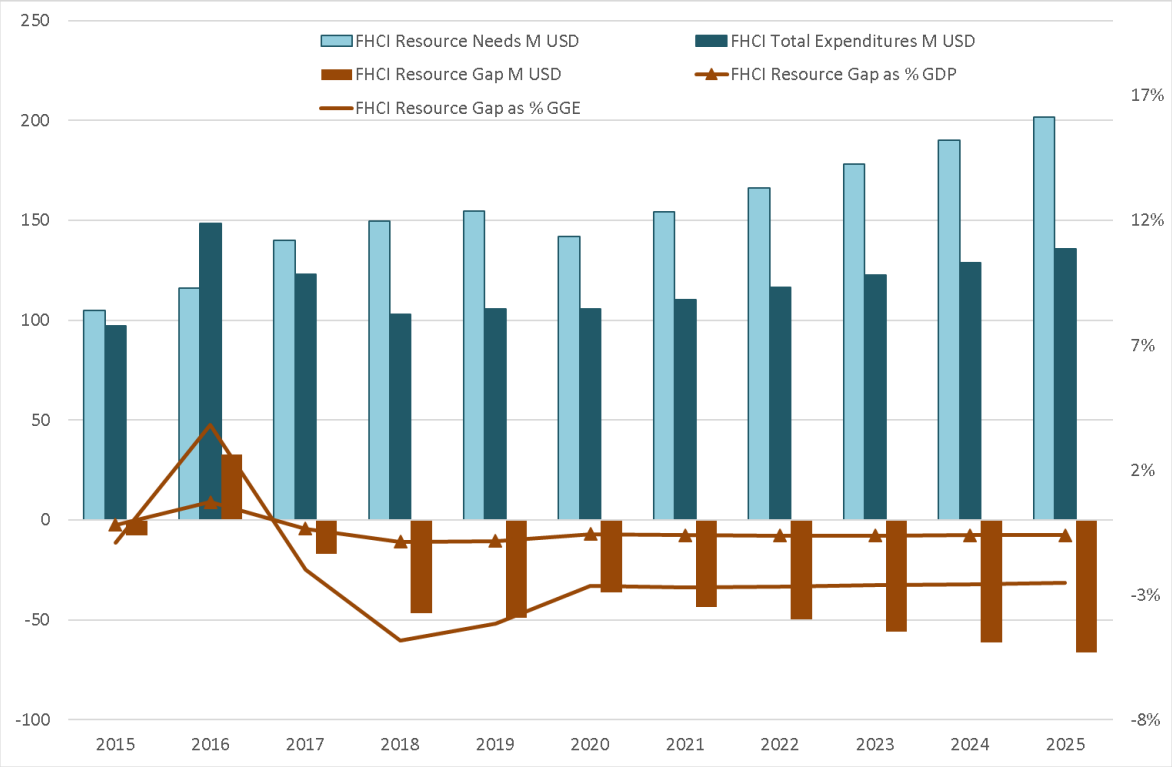
In sum if PBF is not continued the scenario outcomes outlined in this report may be unrealistic to deliver improved health outcomes as the effective operation of PHUs may be in question. To illustrate this point the FHCI Evaluation Report considers past attempts at free health services in Sierra Leone and internationally, it finds that local level health care financing depends greatly on user fees and if this is not accommodated exemptions will not be enforced[66]. It concludes that with respect to the current FHCI "*without new forms of financing at the facility level the hypothesis would be that the FHCI would not greatly reduce the use of unofficial fee systems and might lead to a fall in the quality of services (given increased utilization)*"[67]. In other words, FHCI would not be free in reality.

[64] FHCI Evaluation report (due 2016).
[65] In meeting with the World Bank the current situation was described: World Bank are in discussion with GoSL about a larger package of support which includes the PBF and there is a chance it may continue. The debate revolves around the use of World Bank funds at the time of the Ebola outbreak: GoSL were allowed to use funds targeted for RMCH to go to Ebola including PBF money. As such part of the PBF money was diverted to Ebola projects as an initial response to the crisis. The current negotiations are deciding whether the diverted funds need to be replaced. Whether or not this will mean expansion of PBF post-2016 is unclear at present.
[66] FHCI Evaluation Report (due 2016), see section 2.4.
[67] Ibid, page 17.

5.3 FHCI Business as Usual Financing Gap

Taking the FHCI available expenditures and comparing them to the resource needs provides a projected financial gap for FHCI, this is shown in Figure 8. This shows a widening financial gap over the ten years from 8 million USD in 2015 to 66 million in 2025. Per FHCI beneficiary this means an average of 22 additional USD is required each year. This gap equates to 0.5% of GDP on average each year, and 2.2% of GGE. In sum these projections suggest that if the current FHCI financing is continued there will be inadequate funds to meet FHCI beneficiary needs.

Figure 8: FHCI Business as Usual Financing Gap (M USD and as Proportion of GDP and GGE)



Source: Authors' calculations

5.4 Maximizing Fiscal Space for FHCI

A we have seen the current financing policy for FHCI will not be sufficient to deliver on all FHCI goals. This section provides alternative options to closing the FHCI financing gap as shown above. A revised gap showing the potential impact of these policies will be aggregated into one combined resource gap for FHCI.

5.4.1 Funding Options

There are four sub-groups of domestic funding options: from official government revenues (budget and MHI); hypothecated of earmarked taxes for health; efficiency savings; and borrowing. Each will be assessed in term for Sierra Leone. Private contributions by households and firms are not included in this search for financing FHCI. Inasmuch as household contributions are OOP they are regressive and constitute a financial barrier to accessing health services. While they contribute to financing health services, they are at odds with the notion of free health care.

5.4.1.1 Government Funding: Budgetary Allocation and MHI

Public spending is the most important source of health – and so FHCI - funding from a sustainability perspective (in a predominantly tax funded system). It is essentially a factor of the size of the economy (GDP) and the tax to GDP ratio (which provides the basis for government revenue). There are three main sub categories for public spending:

- Budget allocation from the treasury for FHCI sector expenditures at the central (or national) level.
- In a decentralised fiscal system where, in addition to central transfers, districts have authority to collect funding and allocation this according to specified mandates.
- The governments' contribution to the upcoming mandatory health insurance scheme: Sierra Leone Social Health Insurance (SLeSHI).

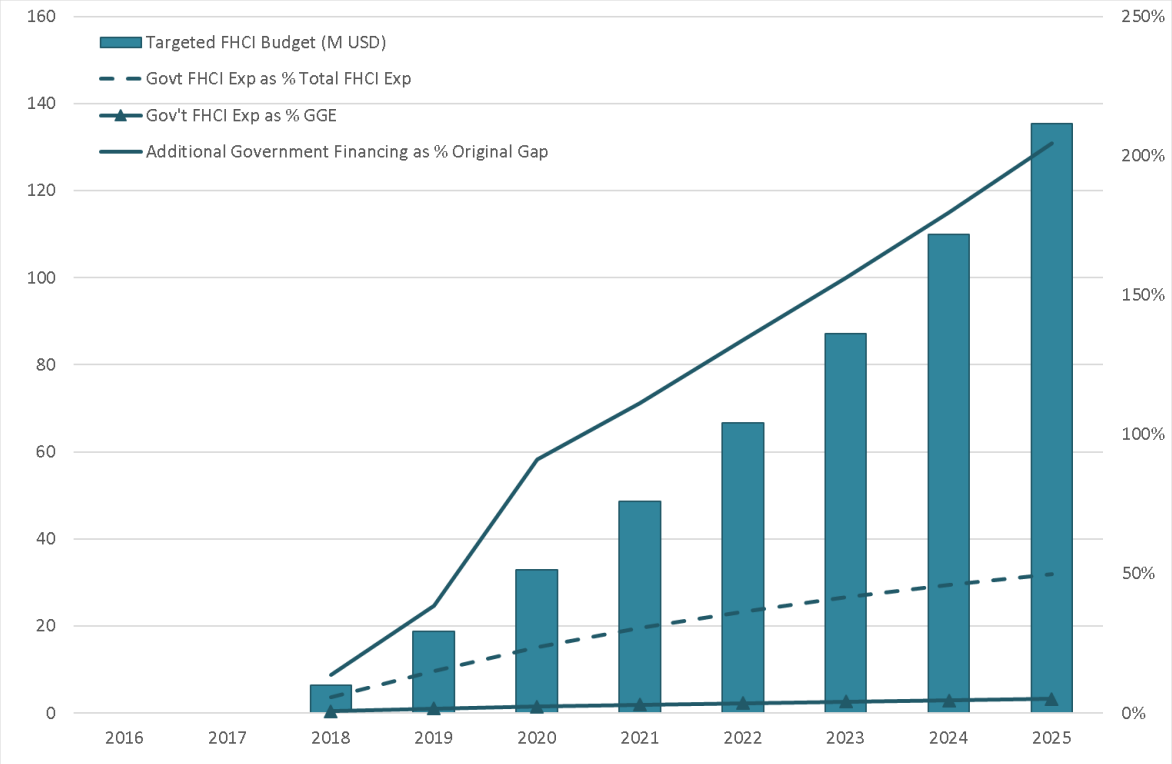
Allocations from government revenue (central or district) to FHCI are conceptually similar to raising resources for FHCI through compulsory health insurance. Both mechanisms levy resources from economic actors to finance health care services, through different modalities (the tax system and the budget; the health insurance fund).

All together these make up public health spending. The target for public spending on health is 15% of total government expenditure as per the Abuja declaration. The Director of Budget in MOFED stated that this was a goal that the GoSL were serious about. In his view this should be achieved by 2025; possibly rising to 10% of GGE in the next five years, and then onto 15% over the subsequent five years[68]. This goal and timeline will be used for the UHC projections – as the Abuja Declaration refers to all government health expenditures, not just RMCH. For this second scenario where FHCI is prioritised the governments investment in FHCI will grow relative to the growth in UHC investment. This assumes that the total health budget will rise to reach the Abuja target and the internal allocations within health sectors will remain unchanged. In this way FHCI will automatically gain extra budgetary funding.

The National Social Security and Insurance Trust (NASSIT) committee state that pilot plans for SLeSHI will start in last quarter of 2016 and will last 6-12 months[69]. The pilot will involve the security sector (police, prisons, military), thereafter all formal economy which will be about 5% of population. Premium rates are being considering at 6% - 3% from employees and 3% from employers. This is what was set out for the business as usual scenario above. Within this new scenario FHCI beneficiaries become 'a subset of UHC'[70]. The current idea is that the FHCI could change from a system of paying no fees to being a SLeSHI member with premiums paid by a government subsidy. NASSIT consider that within about five years external financing to FHCI may bottom out and then SLeSHI will take up the funding gap.

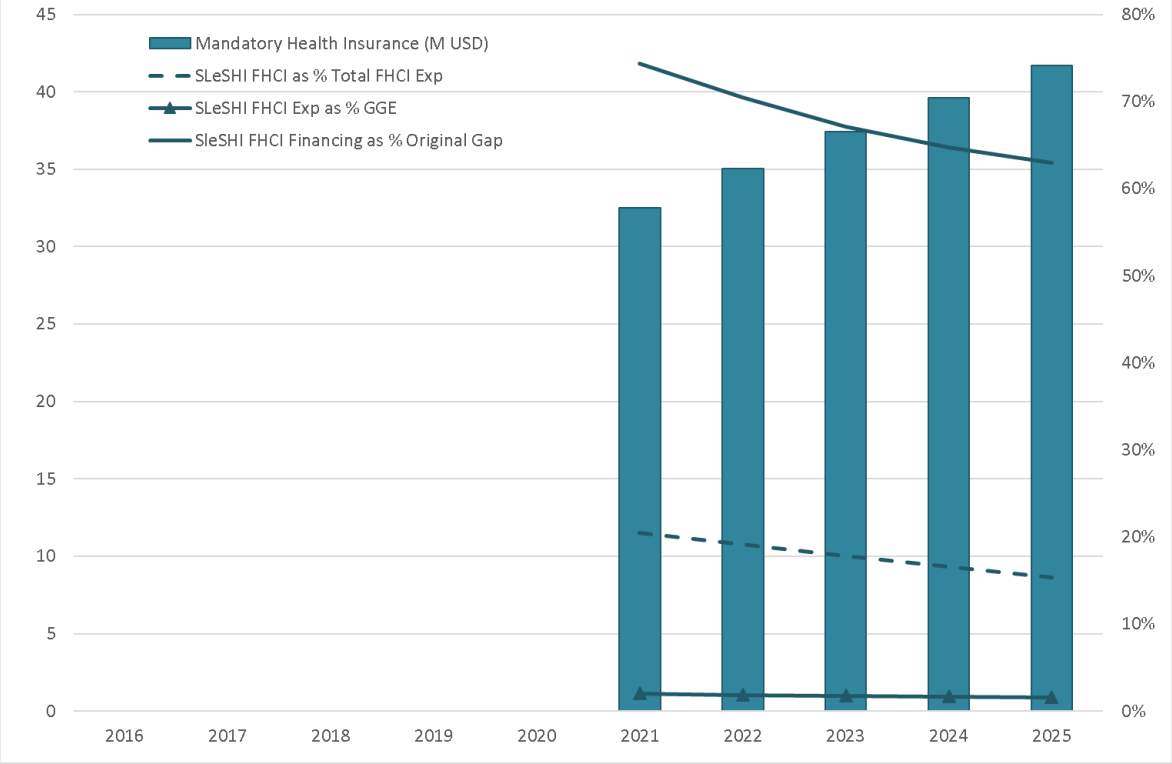
[68] Stakeholder interview, January 2016.
[69] Stakeholder interview January 2016.
[70] A phrase used by a NASSIT Committee member.

Figure 9: Projections for Increasing Budget Allocation to FHCI (M USD)



Source: Authors' calculations

Figure 10: Projections for Increasing Allocation to FHCI and Incorporating MHI (M USD)



Source: Authors' calculations

As these are such early stages in the ideas of the NASSIT Committee this analysis presents two alternative scenarios for public sector funding to FHCI:

- The first is represented in Figure 9 where all FHCI public funding comes from budgetary allocation. As 2016 to 2017 budget are already set out the model begins the move towards Abuja in 2018, and is achieved by 2025. The increased share to FHCI would average an additional 63 million USD a year (from this rise in health allocation of 15% of GGE). This policy change alone would close the financing gap for FHCI in Sierra Leone by 2021.
- The second projection for public spending is shown in Figure 10. This looks at MHI in isolation. If NASSIT plans go ahead from 2021 FHCI will be delivered through SLeSHI with GoSL providing full subsidies to FHCI beneficiaries. The premium levels that are estimated for FHCI are clearly less than the potential budgetary share as in Figure 9. This projection may bring an additional source of funding to the FHCI however, by 2025 the financing through SLeSHI is providing little more than the business as usual scenario.

There may be many reasons for the SLeSHI method being lower than budget allocation. The premiums may not be set at the right level. Possibly too many FHCI beneficiaries assumed (25% of the population). Or there may be not enough funding per beneficiary, the subsidy was set at 20% of premiums paid by formal sector workers as this is the ratio of FHCI:UHC needs. In sum, these are back of the envelope estimates. It must be noted that these are cautious estimates and the GoSL would be advised to look more in depth into actuarial assessment of long term premium and benefit packages for developing SLeSHI in general and for FHCI specifically in Sierra Leone.

Finally, it is important to note that the ability of the government to raise budgetary allocation is not only linked to the political will to do so – moving priorities from roads to health for example. It is also a function on the wellbeing of the economy – the government wouldn't need to move as much in nominal terms if the entire budget envelop rose. For this to happen the Sierra Leonean economy would need to incur solid economic growth and the tax to GDP ratio will have to move considerably higher than the current 9.2%. This is a low taxation rate even for a low income country such as Sierra Leone. This model assumes (somewhat optimistically) that emphasis on tax system reforms could bring the ratio up to the low income average of 14% by 2020, and possibly reach 20% by 2025 if there was serious dedicated effort. Whilst tax reforms are underway (see chapter 5) these take time, as such the public sector financing may be a long term goal for Sierra Leone, but as the financing gap for FHCI shows, money for RMCH is needed in the near term.

5.4.1.2 Earmarked Taxes

General taxation reform takes time. To raise general taxes to increase domestic budget spending can be a lengthy process. As we've seen from the section above the incremental rise in budget allocation to health makes a significant reduction in the resource gap by 2025, but over the short to medium term Sierra Leone simply does not have the capacity to raise the financing required. However, Sierra Leone is not operating at the optimal taxation incidence, as we have seen in the macroeconomic section above there is fiscal space to increase taxation and this can be done in the near term by implementing earmarked taxes. Indeed, Sierra Leone has already shown strong political commitment to FHCI by adding a clause in the Finance Act of 2016 whereby a share of Withholding Taxes collected on government contracts will be set aside for FHCI. This in essence is an earmarked tax.

The main arguments against earmarked taxes and levies are that they may lead to inefficient allocation of resources by removing spending decisions from broader public resources allocation processes, introduce additional distortions into economic decision-making and may undermine

parliamentary/democratic control of public finances. Nevertheless, there are some arguments in favour of specific taxes and the earmarking of spending.

International best practice for public financial management and taxation favours taxes being paid into the general (consolidated) fund with specific spending allocations being made as part of the general public finance process. However, earmarking tax revenue also pays an important role in ensuring the political acceptability of additional taxes and levies. This is particularly the case where the taxes are put to a clearly defined social benefit (such as health services) or linked to particular social dis-benefits (e.g. sin taxes).

The financing of health – and FHCI - is characterised by the need for sustained expenditure well into the future, high donor dependency and uncertainty around future donor support caused by a tight fiscal climate globally. Many governments are therefore confronted with the certainty of important expenditure for health into the future but uncertainty about how to finance their programmes.

Sierra Leone currently does not have the economic growth levels to translate into a wider tax base whereby revenues can cover expenditures. In the previous section we have seen that over time Sierra Leone can be expected to self-fund through general taxation measures as growth and tax reform continues. However, in the short term the current tax systems cannot sustain the needs of the sector. Within the context of dwindling external resources Sierra Leone needs to take ownership of the sector. Given the limitations of the general taxation system it is therefore essential that the FHCI increases fiscal space and investment for RMCH outcomes through alternative funding sources.

The Government in Sierra Leone is currently examining a number of initiatives in this area such as a mobile phone airtime levy (specifically for Ebola), sin taxes (alcohol and tobacco), remittances levy or diaspora bond, and petroleum tax[71]. Whist the petroleum (and mining) sectors are a potentially solid stream of financing for FHCI these ideas have been put on hold due to the collapse of these industries as the international mineral prices remain subdued (see chapter 5 for more details)[72].

From a large list of potential sources of earmarked revenues this report has analysed five different potential earmarked taxes and levies for Sierra Leone to consider. The full list is set out in Table 4 in order of their score within selection criteria to assess their effectiveness as sources of funding for UHC. Each has been measured on a five-point scale: 1) sustainability of resource flows over time; 2) stability of funding; 3) progressiveness (i.e. impact on equality); 4) administrative efficiency (how costly it would be to set up and maintain the levy); and 5) any potential side effects.

The table shows that the top scoring types of levy are: Airline and Sin Taxes (Dormant funds are not relevant in Sierra Leone as per meeting with Bank of Sierra Leone mentioned there was no data and no interest in this). Whilst Remittances and Airtime do not score well they have been discussed in country as so will be put forward for consideration. One new element not included in the table is using funds from withholding taxes for FHCI. This is something currently being discussed in parliament in Sierra Leone and will be considered here.

[71] Discussed in meetings with various stakeholders including officials in the Central Bank, Ministry of Finance, and Ministry of Health. None are yet implemented.
[72] Stakeholder discussions mentioned that the GoSL are prioritising the reintroduction of mining production and so do not wish to increase costs to mining firms at this time.

Table 4: Overview of the Costs and Benefits of Innovative Funding Mechanisms

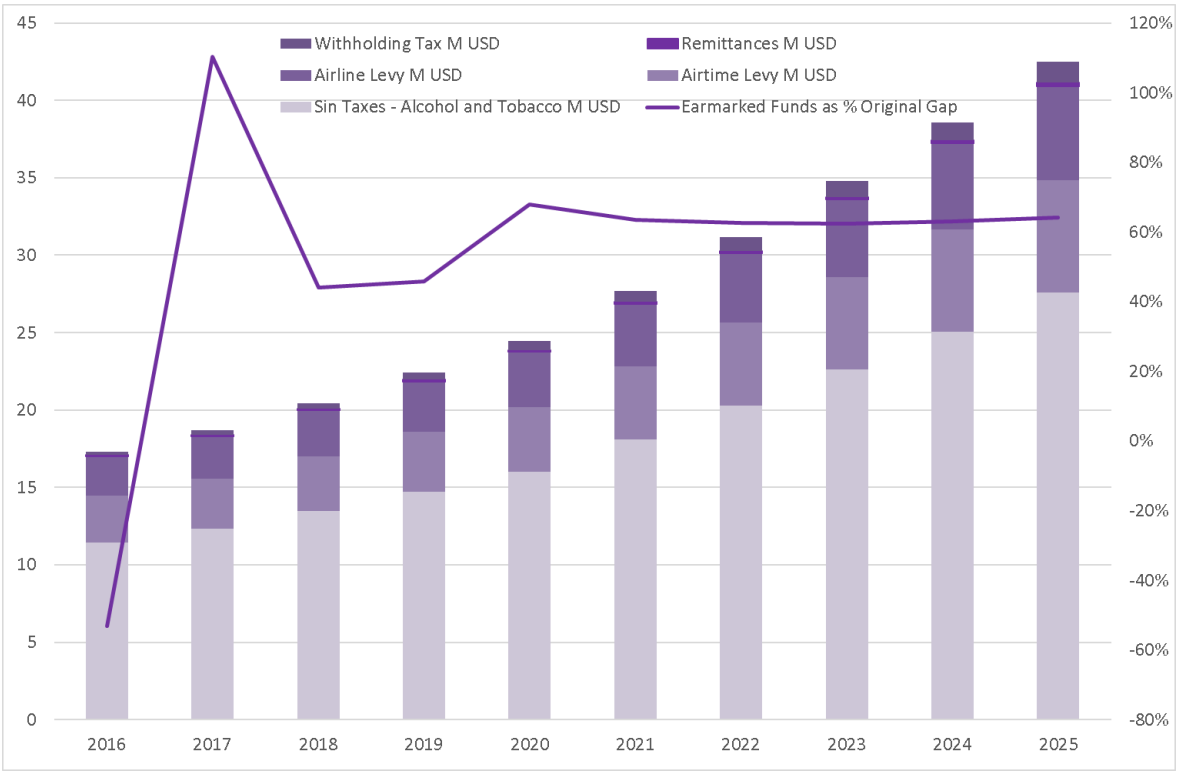
	General Findings					
Mechanism	**Sustainability**	**Stability**	**Progressivity**	**Administrative Efficiency**	**Side Effects**	**Total**
Airline levy	4	4	5	4	4	**21**
Dormant funds	4	4	5	3	4	**20**
Tourism levy	4	4	5	3	3	**19**
Sin taxes – Alcohol & Tobacco	4	4	2	4	3	**17**
Remittances levy	4	3	2	4	3	**16**
Private sector contributions	3	3	3	3	4	**16**
Airtime levy	4	4	2	4	1	**15**
Health bonds	1	5	3	1	4	**14**
Health lottery	2	2	1	2	4	**11**
						Total

Source: Adapted from Lievens (2012)

Note: Summarises findings from countries that have implemented, or carried out analysis on these earmarked taxes

The findings from other countries have been applied to the Sierra Leone macro – health framework for the five chosen. This suggests that Sierra Leone could gain an additional 28 million USD a year over the projection period if various earmarked taxes were implemented, see Figure 11. This would be the equivalent of raising an additional 0.4 percentage points of tax:GDP and would close the financing gap for FHCI by 65% over the time period. However, it is unlikely that these five taxes will be implemented for FHCI. Therefore, the arguments for and against each type will be examined below.

Figure 11: Projections for Earmarked Tax Revenues for FHCI (M USD)



Source: Authors' calculations

5.4.1.2.1 Withholding Tax

A clause has been included in the Finance Act 2016 which states: "*A national health insurance levy shall be imposed at a rate of 0.5% on the value of all contracts relating to the supply of goods and services in support of the Free Health Care Programme*"[73]. In a meeting with the architect of this fund for FHCI it was clear that the main operational elements were not yet fully considered and agreed[74]. As it is in its developmental phase there is space for FHCI experts to improve the arrangements. To date this is what is known about the potential fund for FHCI:

- Idea is born out of an understanding that FHCI is too donor dependent and needs dedicated domestic revenues.
- 0.5% additional tax will be taken from withholding taxes, there is no estimation of the magnitude of the flow of funds expected.
- Funds will be placed in a dedicated account; it will not go into the general budget. Idea that if this is kept out of the budget process the normal budget allocation to health will not be reduced. As a result, MoHS planning and budgeting will no longer include FHCI. Indeed, it was suggested that the MoHS annual plans would be split between one to MOFED and one to the FHCI account.
- Still considering how all this will work in practice, but a Ministerial Committee is preferred to oversee the fund including MOFED, MOHS, and the Ministry of Works.

For an earmarked tax this idea does suggest a sustainability stable revenue source. The government will always outsource goods and services contracts underpinning the flow of funds, whilst roads and energy contracts will be larger one-offs. It would score well on progressivity in that those bidding and winning government contracts are not poor. Administrative efficiency would also be high as this tax already exists and it doesn't cost much to set up a separate account.

However, there are major concerns about what this would mean for the current organization of the FHCI in terms of planning, budgeting and financing systems. Indeed, the suggestion as it stands states that the MOHS would relinquish control of FHCI and be required to run a RMCH policy and plans out with the FHCI with two separate planning and financing systems. This would be far from an ideal position in terms of planning and implementing health care programs. Side effects may be substantial when considering the risk of non-delivery of FHCI services to vulnerable children and women.

Moreover, there is no costing. There is no comprehension of the actual costs of FHCI and no concept of how much revenues this 0.5% tax could bring. When discussing this tax MOFED did not know if it would cover the basic government FHCI costs; i.e. salaries, drugs, etc.

The report has made a back of the envelope attempt at estimating the size of this fund. And if this initiative were to move forward projections show that the withholding tax revenues could be in the region of 0.7 million USD a year over the ten years. This would account for only 1.6% of the FHCI financing gap.

In sum whilst this shows strong political support to the FHCI there is much work to be done in clarifying the organizational elements and ensuring that this will work in favour of the FHCI.

[73] MOFED (2016) Finance Act 2016, Clause 38, page 16.
[74] This section draws from the meeting with the MOFED Revenue and Tax Policy Division Director.

5.4.1.2.2 Airline Levy

The summary Table 4 shows that the airline levy is the highest score in the subset of levies we have assessed. The key benefit to highlight here is the fact that the majority of the Sierra Leonean population is not being taxed under this option, which should make such taxes politically acceptable to taxpayers – air travel being a luxury good and primarily tourists will pay.

An airline levy can be implemented with relative ease as the levy would make use of the infrastructure already in place to collect indirect taxes on the sale of aeroplane tickets. There is strong international evidence of the success of such a levy. UNITAID, the International Drug Purchase Facility, was established specifically to oversee the use of aviation solidarity levies. UNITAID's mission is to provide people in the developing world with long-term access to quality drug treatment for diseases such as malaria, tuberculosis and HIV/AIDS at the lowest price possible. Since its creation in 2006 on the initiative of Brazil, France, Chile, Norway and the UK there are now 34 member countries, the majority of which contribute through aviation solidarity levies.

France, which was the first country to implement an international solidarity airline levy in 2006, charges 1 Euro on all European economy class flights (10 Euro in business class) and 4 Euro on international economy flights (40 Euro in business class) departing from its territory. It was meant to generate more stable and more predictable revenue in order to meet the needs of the developing countries in achieving the MDGs. At the time, the levy was projected to generate revenue of 200 million Euros per annum, to be spent on the fight against pandemics, including access to anti-retroviral treatments for HIV/AIDS[75]. In general, the air levy is applied to all passenger flights originating from the countries that impose it. The levy rate is normally adjusted for the destination and type of ticket class.

Some argue that the levy will reduce demand for plane tickets and therefore might not generate the expected revenue. However, there is evidence that the price elasticity on demand for plane tickets is low and that the airline industry is not affected by this additional tax[76]. Tourism is a significant contributor to GDP and foreign exchange in Sierra Leone and must be protected as a growth source. The levels of the levy suggested here are far from any additional cost that would discourage people from traveling to Sierra Leone. Thus, it is important to note that this levy is seen as a solid contender for alternative financing due to the relatively small charge on the cost of an airfare and the fact that it is not a tax on the poor.

On average countries have found they can raise 0.06% of GDP through an airline levy. This would mean that Sierra Leone could gain something in the region of 4 million USD a year over the next ten years. This would cover a 9.4% of the FHCI resource gap.

There are various pricing options the GoSL could take to increase the revenue flow, such as using a sensitivity analysis to see how far they could raise the levy and it not affect demand (these projections are based on cautious estimates for levy values). A five to 10 USD charge is a very small proportion of the total cost of the average ticket price, and 40 USD is charged by UNITAID on international business class flights. Raising the levy could more than double the projected revenues mentioned above. Other possibilities are disaggregating the charges further, between economy, premium economy, business and first class travel passengers.

In conclusion, this option could provide a significant proportion of funding in terms of the gap that is projected, and is a sustainable income flow which does not constitute a regressive tax as international air travel is a luxury product, with only the very rich flying business class and thus

[75] IAPAL (2008).
[76] WHO (2007).

paying more. In general, all levies represent a small fraction of the cost of travel and are not expected to negatively influence passenger traffic volumes. A levy on airline tickets is both long term and predictable in nature, as air travel is growing and is expected to continue to grow in years to come. Moreover, it could be easily administered and there are strong country experiences to build on. It is therefore seen as a viable option for Sierra Leone. MOHS would need to consult with the tourism and airline industries to ensure that this move would be accepted.

5.4.1.2.3 Sin Taxes

There is an established link between alcohol and tobacco consumption and health and hence a plausible argument that funds raised from a levy on these goods should be devoted to health and indeed RMCH through the FHCI. This taxation measure is simply a rise in the taxation on alcohol and tobacco that is earmarked for the FHCI. It penalises drinkers and smokers and is not paid by people who do not consume these goods. This type of taxation is referred to as a 'sin tax' as such taxes are attempting to regulate the consumption of a product that society deems undesirable. The revenue generated by sin taxes can be used for special projects. For example, in Sweden the proceeds of a tax on gambling are used to help people with gambling problems.[77]

Consumption of alcohol and tobacco has been linked to medical problems. For example, smoking causes lung cancer and heart disease.[78] Raising the cost of these goods to reduce their consumption is argued to be a way in which to produce a healthier society. For example, once a person stops smoking their risks of mouth and throat cancers fall by half within five years.[79] Furthermore, since the consumers of these products are a greater burden on the health care system the argument is that they should be taxed more to pay for costs of treatment.

One possible side effect of a sin tax is that there may actually be some improvements in health as a result of the imposition of sin taxes. This assumes that if these goods are more expensive, demand will decrease and so less damage is done to the health of the consuming population. For example, the health, safety and socioeconomic problems attributable to alcohol can be effectively reduced and many evidence-based alcohol policies and prevention programmes are shown to work. A recent analysis of 112 studies on the effects of alcohol tax increases affirmed that when taxes go up, drinking goes down, including among problem drinkers and young people.[80] One of the most effective approaches is raising alcohol prices by raising taxes. The cost-effectiveness analysis of interventions to prevent hazardous alcohol use determined that taxation was the most cost-effective in populations with moderate to high levels of drinking (above 5% prevalence) and lower unrecorded consumption (below 50%).[81]

Arguments against sin taxes include such reasoning as a belief that rising taxes trigger a rise in the black market and that such taxes are regressive in nature.

A sin tax with proceeds earmarked for FHCI is administratively similar to any other indirect tax. It should be relatively straightforward to collect the tax and to separate out the revenue for allocation to health programmes. Moreover, experiences in developed countries suggest that excise taxes cost less to administer than many other taxes. In a UK study, it was estimated that administrative costs as a percent of tax revenue were 1.53% for personal income taxes, 1.03% for VAT, and only 0.25% for excises.[82]

[77] European Commission (2006).
[78] Centres for Disease Control and Prevention (2014).
[79] Ibid.
[80] Wagenaar et al. (2009).
[81] Chisolm et al. (2004).
[82] Godwin (1995).

If Sierra Leone were to implement sin taxes, projections show that they could collect 18 million USD a year over the projection period. This would account for 42% of the FHCI financing gap.

To conclude, while sin taxes may be easier to digest for tax payers, in as much as they are taxing socially undesirable goods. However, if further analysis proved that the market could absorb a tax in these industries the sustainability of resource flows to health would be achieved. This is because there would be little pressure to reduce the taxation of these goods from a social standpoint. Furthermore, there would be little administrative cost in setting up this levy as the taxation systems are already in place for both alcohol and tobacco. There are concerns that this type of tax is not progressive in that lower-income households will pay proportionally more of their incomes on this tax. Yet, it has been argued that the higher you raise this tax the poor are priced out of the market and so their health risks are taken out of the equation and this type of sin tax can also be viewed as a luxury goods tax.

5.4.1.2.4 Airtime Levy

There has been prior interest in this type of levy in Sierra Leone. At the time of the Ebola outbreak there was talk of setting up a levy to pay for Ebola health needs, and thereafter this idea has been discussed in terms of earmarking the funds for other health needs[83]. A levy sufficiently small not to distort demand could in principle be imposed on mobile phone calls. However, the mobile phone industry in Sierra Leone affects a large and diverse population. The mobile phone market is young and developing quickly and it is therefore uncertain how consumer demand will change in response to a tariff on calls.

It is not just outreach that is expanding. In many countries there are plans to develop services accessed through mobile phones, such as mobile money.[84] In other countries' experience once available the demand for this type of service will grow exponentially. As and when the mobile phone market covers more than just phone calls there will be increased concerns about this type of levy. If new financial services develop on the back of mobile phone penetration the introduction of an additional cost to using these services may have a detrimental impact on these services and more widely on the country's economic development. Some comments on the situation in Kenya, where the use of mobile phone technology in advancing economic development, may be useful to consider for Sierra Leone:

- Mobile banking is commonplace in Kenya, including transferring domestic remittances. This technological tool has been an important instrument in deepening financial services to the rural poor[85] and the World Bank sees the use of 'mobile money' as a potential engine for growth and poverty reduction, estimating that, by end 2010, '*15 million Kenyans (3/4 of the adult population) will use mobile money … transferring an estimated 7 billion USD annually (20% of GDP) by phone*'.[86]
- Two further initiatives are mobile phone-based health and agricultural insurance. One such example is the *Kilimo Salama* crop insurance, which relies on weather station information and

[83] From multiple stakeholder interviews in country; this topic was a very common one throughout the gathering information visit.
[84] See Mohapatra and Ratha (2011).
[85] Cited in Mohapatra and Ratha (2011), pages 170–72.
[86] World Bank (2010), page vi.

pays out direct to policy holders by mobile phones.[87] Some of these initiatives are expected to lead to greater productivity in agriculture and have wider economic growth impacts.[88]

Mobile phones have thus become intertwined with a wide range of economic activities in Kenya, from subsistence farming to the urban financial sector, with a strong positive impact on the macro economy. Increased levels of semi-formal financing provide information to a country's central bank about liquidity in the financial system. At a micro level, the transfer of cash at low costs can offer safeguards to vulnerable populations. Moreover, a recent report suggests that airtime taxes are regressive in nature as they penalise the poorer sections of society.[89] It also claims that by lowering taxes on mobile phones, governments will in fact increase receipts as millions more people will be able to afford to use them. It is interesting to note that some countries such as Gabon, Kenya, Malawi and Burkina Faso contemplated introducing an additional airtime levy[90] but this levy faced criticism primarily due to the impact on the mobile phone industry and the disproportionate burden that it places on the poor, who use their mobile phones for economic decisions.

Nonetheless, if Sierra Leone were to implement a tax on mobile phone airtime this could raise 5 million USD over the next ten years. This would account for 11% of the FHCI financing gap.

In sum, this levy could raise a source of financing for the FHCI. The industry is expected to continue to grow rapidly over the next few years and so revenues could be relied upon in a consistent manner. However, lower-income households spend proportionally more of their income on airtime than higher-income households. This, as well as the idea that new services such as mobile money could benefit the poor, suggests that this could be a regressive rather than progressive tax.

Further research into the plans for mobile banking services should be carried out before a decision to increase the tax on this industry is made. This should also include analysis of the potential side effects of raising taxes on airtime for businesses, finance and other industries.

5.4.1.2.5 Remittances Levy

Imposing a levy on international remittances has been identified as a potential revenue source for funding FHCI. This would be achieved by adding a small fee onto all money transfers from abroad. Remittances to Sierra Leone are estimated at around 100 million USD a year[91]. As a proportion of GDP this is 2% and as such they constitute an important source of funds within the economy, comparable with external on-budget support which has been around 4% (averages for 2010 to 2014). Therefore, any taxation on this flow of money must be considered carefully.

Remittances can be made through both formal and informal channels, and this levy would relate to formal remittances only. Formal, or official, cash flows make up the majority of remittances. However, it must be noted that the data from Bank of Sierra Leone makes an estimate as to the size of informal remittances as no data are available, i.e. the true size of informal remittances into Sierra Leone is not known. The difference between formal and informal flows is described below.

Formal channels include domestic and international banks and service providers. Providers in Sierra Leone include international firms such as Western Union. Factors affecting their use include:

[87] See: http://opinionator.blogs.nytimes.com/2011/05/09/doing-more-than-praying-for-rain/.
[88] World Bank (2010), page vi.
[89] GSMA (2012).
[90] Lievens et al. (2012).
[91] IMF Article IV 2015.

- High transaction costs, which are believed to dampen the scope of money transfers;
- Banking requirements often excluding potential users from accessing banking services;
- Clearance times for money transfers being notoriously long; and
- Stringent exchange controls.

Informal channels include money carried by migrants themselves and remittances carried by friends and family or sent through taxis and buses. These are believed to have a number of advantages and disadvantages, including the following:

- Their costs are typically lower;
- They provide an opportunity to avoid government taxes;
- They do not require documentation and thus facilitate transfers from illegal immigrants; and
- They are less reliable and extremely difficult to monitor.

The policy option to impose a levy would only affect formal sector transactions. This additional cost to transferring money through formal channels may lead to a move from formal to informal channels, with consequent externalities associated with this.

It is possible that, if the diaspora is made aware that the extra charges are channelled to health programmes they will be sympathetic and this could mitigate the shift toward informal remittances. However, the importance of fully researching this policy option cannot be overstated, as remittances are a key flow of funds to developing countries:

> *'Remittances are the second biggest source of external financing after foreign direct investments for developing countries. ... Remittances represent almost 2.5 times the volume of ODA. Due to lack of data, this amount is considered by the [World] Bank as grossly underestimated, since it only reflects transfers through official channels'*.[92]

International findings provide further evidence for treating any policy change to remittances with caution.[93] Research has shown that remittances can:

- Act as a safety net in times of hardship;
- Be used to support families in the face of unexpected health care expenditures; and
- Protect poor families from slipping into extreme poverty.

It is clear that remittances provide a crucial source of income for the population. They can be spent on health services and in doing so will contribute to the financing of health (mostly probably through OOP).

In February 2011, the United Nations Conference on Trade and Development (UNCTAD) held a conference to debate ways in which to maximise the development impact of remittances.[94] Although this area has not been well studied, there are some stylised facts on the positive and negative consequences of remittances. For example, UNCTAD note that remittances are known to have beneficial effects as follows:

1. Raise tax revenue – by raising consumption, and so in turn can increase fiscal space; and

[92] Lamontagne and Greener (2008), page 9.
[93] Lamontagne and Greener (2008).
[94] UNCTAD (2011).

2. Improve debt sustainability – thereby reducing the marginal cost of raising revenue; (reduced country risk).

However, some negative consequences include:

1. Dutch disease – remittances are found to be positively correlated with real exchange rate appreciation and this is stronger for low- and lower-middle-income countries (particularly those which are less open, in both trade and capital flow terms); and
2. Looser fiscal discipline – fiscal space opened up by remittances, allowing governments to take advantage by increasing consumption or borrowing.

If a levy was placed on remittances Sierra Leone could expect annual revenues of 0.1 million USD. Over the projection period this would cover just 0.3% of the FHCI financing gap.

For the amount of effort required to implement this type of taxation system and given the fact that these remittance resource flows are essential for low-income families such an approach is not be recommended as a long-term solution to the health financing gap. Moreover, in Sierra Leone there is an understanding that remittances play an important role in maintaining a stable macro economy[95].

To conclude, although remittances provide a sustainable and rising base to raise health funds from they are not progressive. They are effectively a tax on those receiving remittances – usually the poor in a society. If this funding mechanism was chosen new administrative measures would have to be put in place to monitor and audit revenue flows, which would be costly. Given the important contribution that remittances make to economic development and poverty reduction, and the limited understanding of the behavioural effects that any policy change may cause, more research is warranted before this could be a recommended funding source.

5.4.1.2.6 Summary of Earmarked Taxes for Sierra Leone

To conclude the withholding tax for FHCI currently has the most traction in Sierra Leone. For this to work in the favour of those implementing the FHCI it would be advised to work with MOFED to develop this to work optimally with current financing arrangements and FHCI needs. However, the projected values are very small and would only cover around 1.6% of the total financing gap for FHCI.

More effort may be best used in further research into an airline levy or sin taxes in terms of the value of revenues flows projected. The airline levy is the most pro-poor example discussed and has the added benefit of being paid by international population rather than citizens. Additionally, the example given here are cautious estimates, a closer assessment of the industry could bring greater funds. The sin taxes have the most health-relevant factors and may be an easier argument to put to Government and the public. The remittances levy brings in very limited funds and is a risk to the economy and so this would not be advised. Finally, the mobile phone tax would not be recommended as it is regressive and risks potential growth in new financial services.

For the longer term, when the mining sector returns to strength and petroleum becomes viable there should be an idea to revaluate the potential of earmarked funds from their earnings. It could be a valid longer term source of finance as the African Development Bank report finds that natural resource revenues could cover 87% of the health financing gap in Sierra Leone[96]. However, the

[95] Discussion with Bank of Sierra Leone.
[96] African Development Bank (2015), Page 10.

report does conclude that extractive industries are sensitive to price fluctuation and the GoSL may be unable to smooth expenditure and revenue flows.

5.4.1.3 Efficiency Savings

Simply defined, inefficiency refers to a failure to fully exploit available resources. At its most basic level, efficiency gains can be thought of as achieving one of two things:

- Better health outcomes for the same level of investment; or
- The same health outcomes at a reduced level of investment.

The gains that are to be made by improving efficiency are those that would result from closing the gap between coverage levels and health outcomes that are currently achieved and those that could potentially be achieved with the same resources were they to be used more efficiently. Thus, what is important for efficiency is not simply the cutting of costs but increasing the impact of spending and improving the efficiency with which funds are spent. The emphasis, therefore, is fundamentally on value for money, i.e. containing or reducing costs without reducing health outcomes or, better yet, achieving better health outcomes for the same level of investment. Efficiency, therefore, includes a measure of both the quality and the quantity of outputs (i.e. health outcomes or services) for a given level of input (i.e. cost).

In this way, while inefficiency is traditionally thought of as involving excessive spending it may, counterintuitively, result from insufficient spending. For example, low salaries for public sector health workers can result in these workers supplementing their income with second jobs during the hours of their primary employment, detrimentally affecting the quality of care delivered by the public health system.

A further component to efficiency is those gains to be derived from improving the global health architecture. Donors can reduce the fragmented way that their funds are delivered and that countries are asked to report on their use. Donors could also reduce duplication.

Efforts to improve efficiency are directed at one of two areas:

1. Improving the allocation of resources so that the health service implements a mix of services that maximises health outcomes (allocative efficiency); or

2. Improvements that optimise implementation so that interventions are implemented most efficiently (technical efficiency).

Table 5**Error! Reference source not found.** presents the ten leading causes or sources of inefficiency identified by the World Health Report 2010. More research in Sierra Leone would need to be carried out within these areas to identify the best efficiency strategy to move forward with for raising efficiency within FHCI specifically. Some efficiency challenges for FHCI have been discussed in the FHCI Evaluation Report. The key areas for focus would be drugs (procurement and supply chains), and HR Management.

Table 5: The Ten Leading Causes or Sources of Inefficiency

	Category	Inefficiency
1.	Medicines	Underuse of generics and higher than necessary prices for medicines.
2.	Medicines	Use of sub-standard and counterfeit medicines.
3.	Medicines	Inappropriate and ineffective use.
4.	Products and services	Overuse or supply of equipment, investigations and procedures.

5.	Health workers	Inappropriate or costly staff mix, unmotivated workers.
6.	Health-care services	Inappropriate hospital admissions and length of stay.
7.	Health-care services	Inappropriate hospital size (low use of infrastructure).
8.	Health-care services	Medical errors and suboptimal quality of care.
9.	Health system leakages	Waste, corruption and fraud.
10.	Health interventions	Inefficient mix/ inappropriate level of strategies. [allocative efficiency]

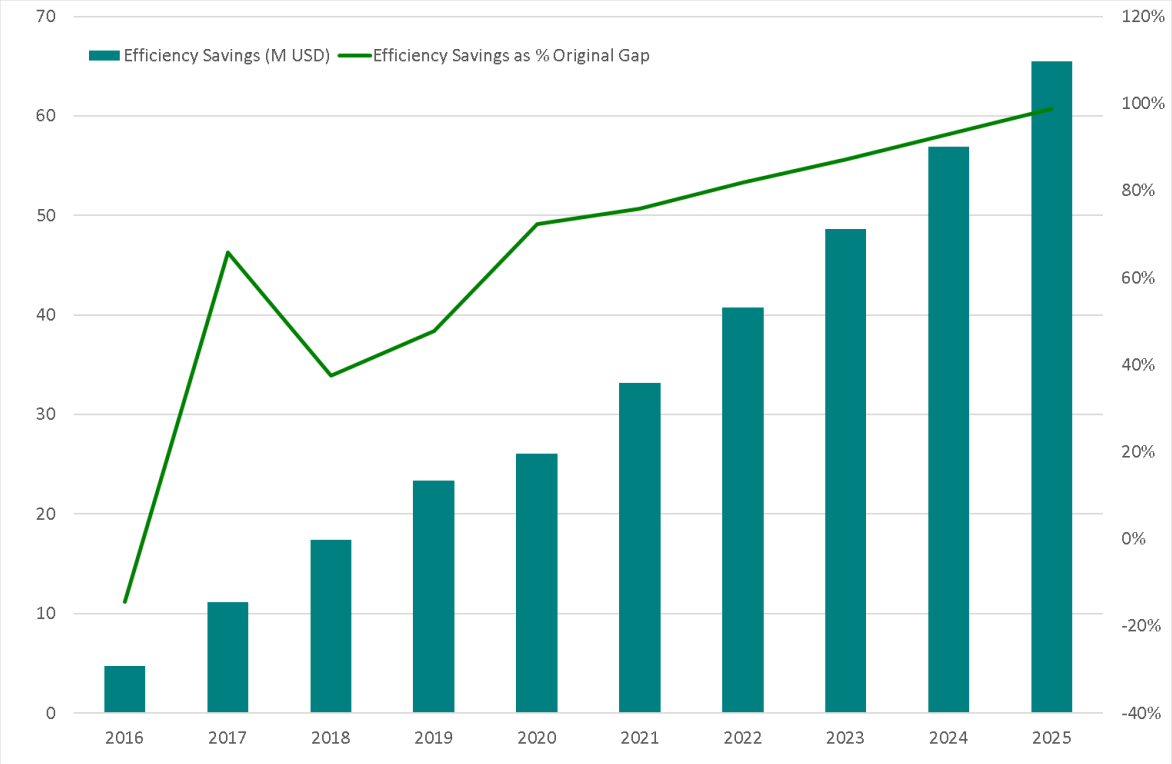
Source: World Health Report 2010

For this financial gap analysis the focus is on estimating the potential savings from efficiency gains in Sierra Leone. The methodology used to estimate the magnitude of potential savings from imposing efficiency measures is based on international comparative performance (see Annex A for full details). This was carried out for Sierra Leone in terms of the entire health sector and no data exists for the FHCI sector alone. In this case we assume the average efficiency levels for FHCI are similar to that of the entire health system. The results of the DEA carried out by Zeng (2014) show that Sierra Leone is relatively inefficient: 80% less efficient compared with those countries producing at the production frontier. If Sierra Leone was to continue on an efficiency improvement path it is projected to be only 67% less efficient by 2025, meaning the country would be 33% as efficient as the most efficient countries. This supports the idea that OOP is very high in Sierra Leone due to the health system being constrained with great inefficiencies[97].

The impact of reducing inefficiencies would be that the volume resources needed for health could be reduced if the same amount was spent more effectively; this would then bring down the health resource needs by an average of 33 million USD a year, as shown in Figure 12. This would reduce the financing gap by 65% over the time period. This value is a cautious estimate as it does not assume any new focus on reducing inefficiencies, it simply projects the recent past trends in reducing inefficiencies.

[97] Discussed by stakeholders in a number of meetings, January 2015.

Figure 12: Projections for Efficiency Savings in FHCI (M USD)



Source: Authors' calculations

In sum, Sierra Leone would need to investigate to identify the bottlenecks in efficiency most pertinent to delivering FHCI. This process will not be a one off exercise as finding and implementing efficiency savings is an ongoing task as processes, health packages, and technologies change. There is much international research into the areas of most common inefficiencies and how these can be identified and overcome that MOHS can learn from.

5.4.1.4 Borrowing

The last option available to a government to close the resource gap domestically is to borrow. For However, if the GoSL makes some domestic policy choices as mentioned above borrowing would not be needed over the long term to close the FHCI gap.

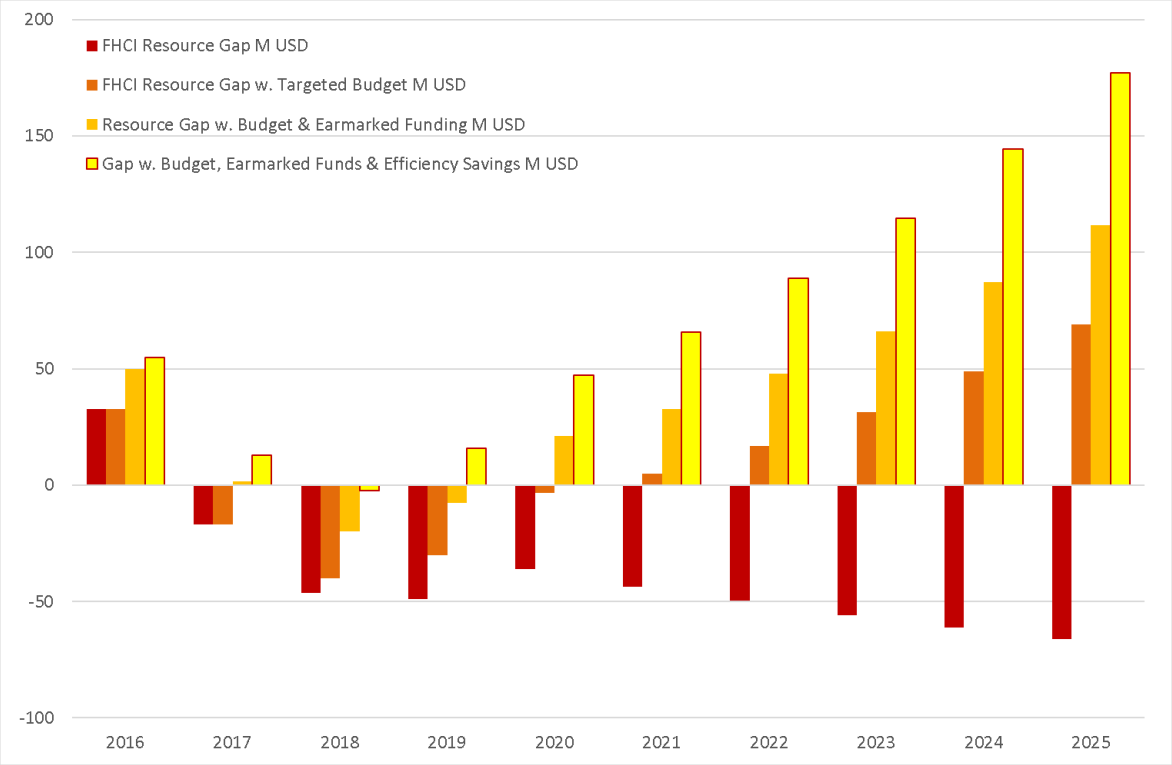
5.4.2 Revised Financing Gap

Taking all of the prioritising activities discussed together we are left with the scenario described below in Figure 13 for the FHCI resource gap. This includes the expenditures from government and donors only in trying to achieve sustainable non-catastrophic financing. The developments projected under the maximising fiscal space for FHCI can be explained in the following steps:

1. The original financing gap (red bar chart) is the resultant gap under scenario 1 'business as usual', as described at the start of this chapter (as per Figure 8). By 2025 the gap is projected to reach 66 million USD, which is 0.6% of GDP.
2. The next bar chart (orange) shows how the gap can be reduced through government funding. Raising the budget for FHCI - in line with the total health budget moving towards the 15% Abuja target - would close the gap in its entirety by 2021. [A second option of including FHCI beneficiaries into SLeSHI may reduce the gap by only 2% in 2025]. A gap remains in the medium term and short term financing options are required.

3. The third bar chart (gold) shows the sum of the government's actions (in point 2 above) with the potential resources from earmarked taxes. These innovative funding mechanisms could reduce the financing gap by 65%. In the unlikely situation wherein the GoSL was to implement all new taxes on top of raising budgetary allocations the financing gap would decline in 2017, and would be closed by 2020.
4. The final bar chart (yellow) takes the situation in point 3 above and adds in renewed efforts of the government improve efficiency. Efficiencies can be made but can take some time to implement but choosing the right areas to target could bring the closure to the financing gap.

Figure 13: FHCI Maximising Fiscal Space Financing Gap (M USD)



Source: Authors' calculations

In sum with a reprioritised focus on FHCI financing policy the resource gap can be closed. Longer term budgeting needs should to be considered and implemented soon for the impact to be felt post-2020. Medium term earmarked taxes and efficiency savings should be further researched, planned and implemented for their introduction in the near term before economic growth can support greater budgetary allocation to FHCI.

There two current financing propositions being discussed in Sierra Leone: adding FHCI within the SLeSHI; and having a fund financed by revenues from withholding taxes. As they stand both can be expected to add more complexity and less leadership within the financing, planning, implementation, and M&E systems of the FHCI. However, neither are formally structured and so the MOHS has the opportunity to mould these initiatives to strengthen organisational structures to improve efficiency of financing and capacity to plan for service delivery.

It is important to note that external financing remains in the FHCI system over the next ten years in this scenario – albeit at a lower level than currently seen. This support is crucial for the longevity of the FHCI in the foreseeable future. However, recently more external financing has moved off-budget, this is a sub-optimal financing arrangement for implementing a policy that is highly donor-dependant. As the FHCI Evaluation Report finds: "*weaknesses in PFM have meant that the*

potential opportunities for the FHCI to bring greater budget certainty and coherence between GoSL and developments partners have been limited. There was continuation of volatile funding (from government and donors), different templates for reporting, and development partners continuing to provide significant-off-budget funding"[98].

To help gain continued support for FHCI, and potentially on-budget support, the GoSL should be equipped with a more detailed comprehension of FHCI financing which at present does not exist. Extensive plans and policies should include financing as well as implementation and expected outcomes. Showing policy plans against available funds can act as an advocacy strategy for continued external support for FHCI. Donors can be assured of political will underpinned by a firm strategy, costed goals and a dedication to longer term sustainability. This alongside improvements in PFM could bring more donors back on-budget which is a more sustainable financing method when domestic resource are insufficient to cover the gap.

What is the cost of not doing so? If FHCI is not reprioritised the gains in maternal and child health over the past few years will not be sustained and Sierra Leone will continue to have one of the worst child and maternal health mortality rates in the world. FHCI could falters due to insufficient funds in totality or lack of attention to crucial areas such as the risk of losing PBF at PHU level. So far FHCI has been successful in reducing maternal and child OOP payments, but the FHCI Evaluation Report finds that total health OOP has only reduce 'modestly' with the introduction of FHCI and so more needs to be done to reduce the number of families at risk from CHEs. The overarching goals of the GoSL are to reduce OOP expenditures and to move towards a nationally inclusive health system to reduce the high level of OOP spending, i.e. Universal Health Coverage (UHC). FHCI can be viewed as a beginning to this goal. As such it is important to understand that although a low income country Sierra Leone can provide sustainable domestic funding within the current and future economic context, but that external funding will be required to optimise chances of success.

[98] FHCI evaluation Report (due 2016), page 69.

6 Gap Analysis for UHC

This chapter expands the focus to UHC. It provides the projections for the expenditures of the entire health system in Sierra Leone. It will present estimated resource needs to achieve UHC and the resultant financial gap over the next ten years. It will then go on to discuss a number of domestic financing options to close the gap. A revised gap after maximizing fiscal space for UHC will provide an overview of the findings.

The methodology for UHC replicates that of the FHCI above. Again private contributions by households and firms are not included. Inasmuch as household contributions are out-of-pocket they are regressive and constitute a financial barrier to accessing health services. While they contribute to financing health services, they are at odds with the notion of UHC itself, and therefore should be converted into a form of pooled funding (either through increased taxation or mandatory social security contributions).

UHC is an aim of the GoSL as stated in the HSRP (2015-2020): "*The Ministry of Health and Sanitation sees the Basic Package of Essential Health Services (BPEHS) as the vehicle for delivering the promise of accessible, equitable and affordable health care services for Sierra Leoneans*[99]. As such the governments' health policy is linked to ensuring financial protection under efficient allocation and use of resources. In general OOP and private sector do not automatically provide these functions and the state is a much more effective mechanism for supplying health services. We will refer to OOP projections as it is important to know the outlook for OOP and potential CHEs in the longer term. This will provide a benchmark as to how effective raising domestic fiscal space for health can be in protecting the poor.

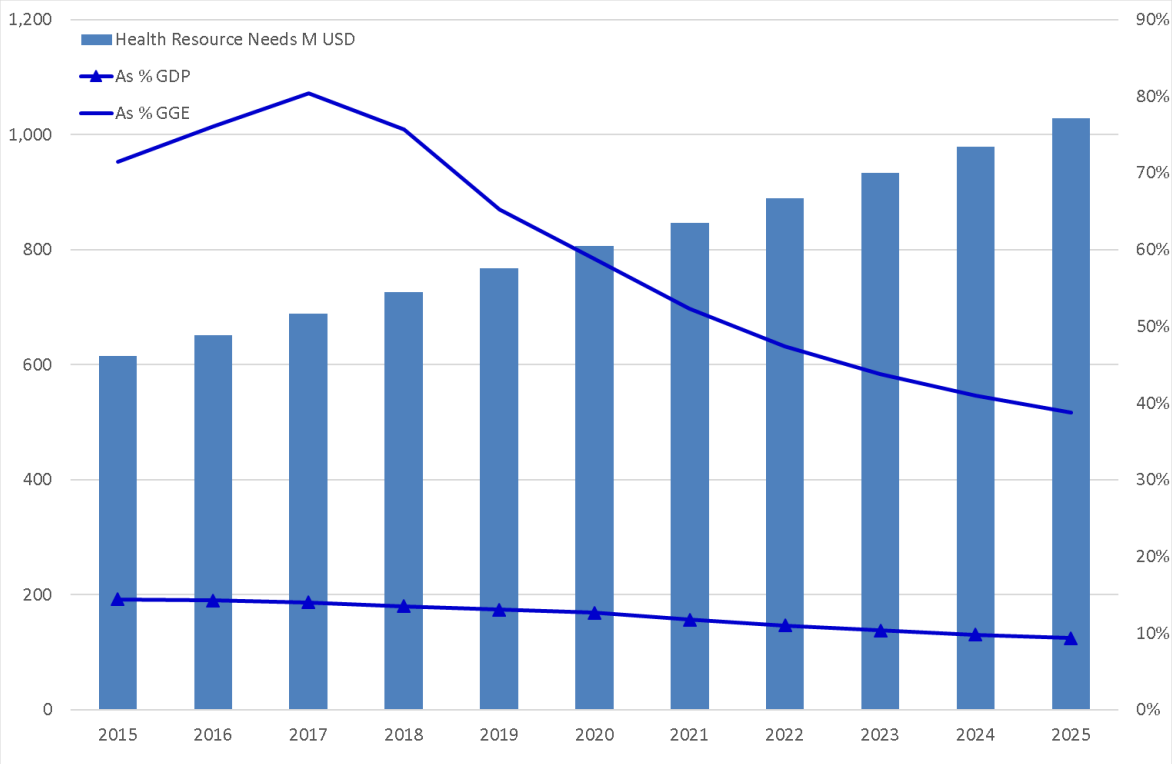
6.1 UHC Resource Needs

The resource needs for UHC are based on the research by McIntyre and Meheus (2014) - as described in Annex B. In short, this methodology states that no country has delivered UHC under 86 USD per person (2012 prices).

Figure 14 provides the estimated resources required to deliver UHC in Sierra Leone. These average 812 million USD a year over the ten years, accounting for 12% of GDP and 59% of GGE. This would provide 95 USD per capita in 2015, rising to 130 USD in 2025 (86 USD is inflated over time).

[99] MoHS (2015), page 26.

Figure 14: UHC Resource Needs (M USD and as Proportion of GDP and GGE)



Source: Authors' calculations based on 86 USD per capita (McIntyre and Meheus, 2014)

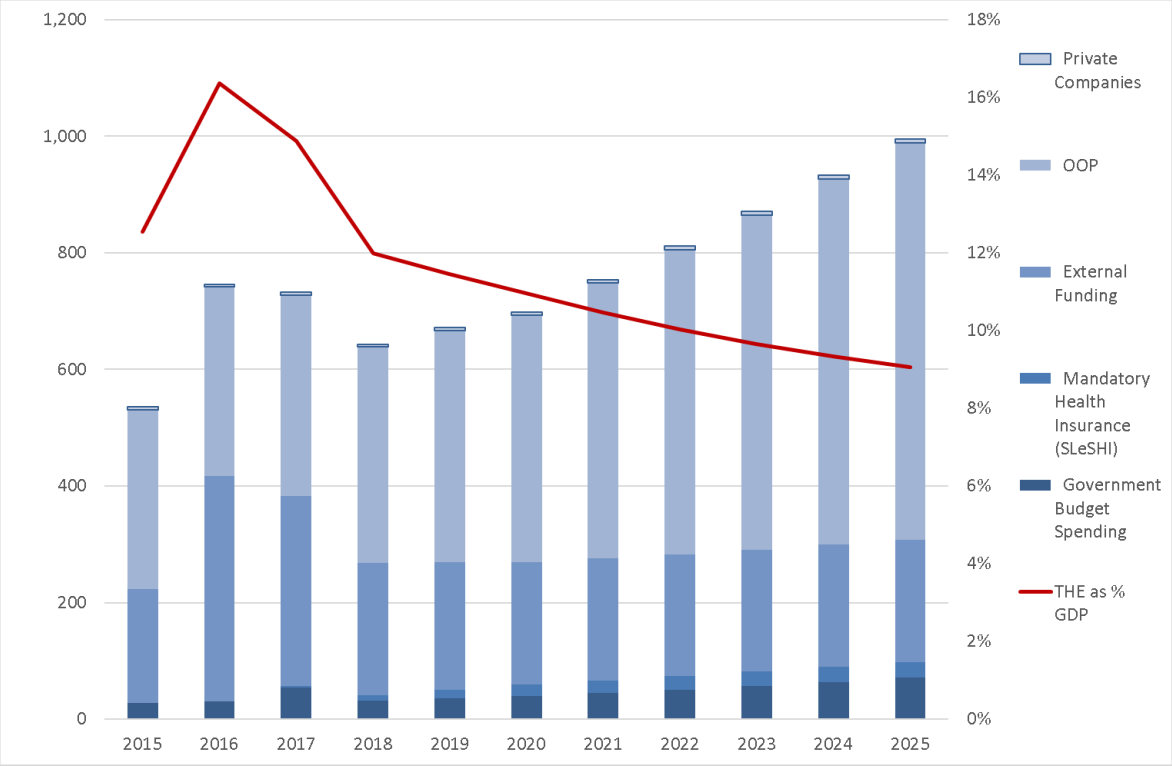
6.2 Available Expenditures for UHC

Total Health Expenditures (THE) are made up of monies from government (budget and MHI), external donors, households OOP and the private sector. The basis for these are taken from the National Health Accounts (NHA), and the projection methodology is described in Annex B. The underlying premise within this fiscal space analysis is that over time GoSL will increase financing to the health sector to reduce OOP payments to reduce the incidence of Catastrophic Health Expenditures (CHE). Over the next ten years it can be expected that support from the external community may decline as the Sierra Leonean economy grows, and so become more self-sufficient, and as a function of expected donor behavior (see Annex A part A.2). And although we do not include OOP and private spending in the assessment of monies available for UHC it is useful to assess the OOP levels at the end of the period from raising fiscal space for health as this is an indicator of the incidence of CHE.

Figure 15 provides the projections for THE by source. THE is expected to rise - from 535 M USD in 2015 to 995 M in 2025 - if GoSL continues with its present health financing policy and donor disbursements remain stable in nominal terms. However, in real terms THE will average 12% of GDP over the period (peaking in 2016 at 16% due to large budgeted capital expenditures), and then fall to 9% of GDP as donor funds drop out over the longer term. Government and donors:

- Government Health Expenditures (GHE) account for 8% of THE and remain relatively stable averaging 4.2% of General Government Expenditure (GGE).
- External funding averages 32% of THE, falling to 21% by 2025. THE per capita is projected to rise from 83 USD in 2015 to 126 USD in 2025.

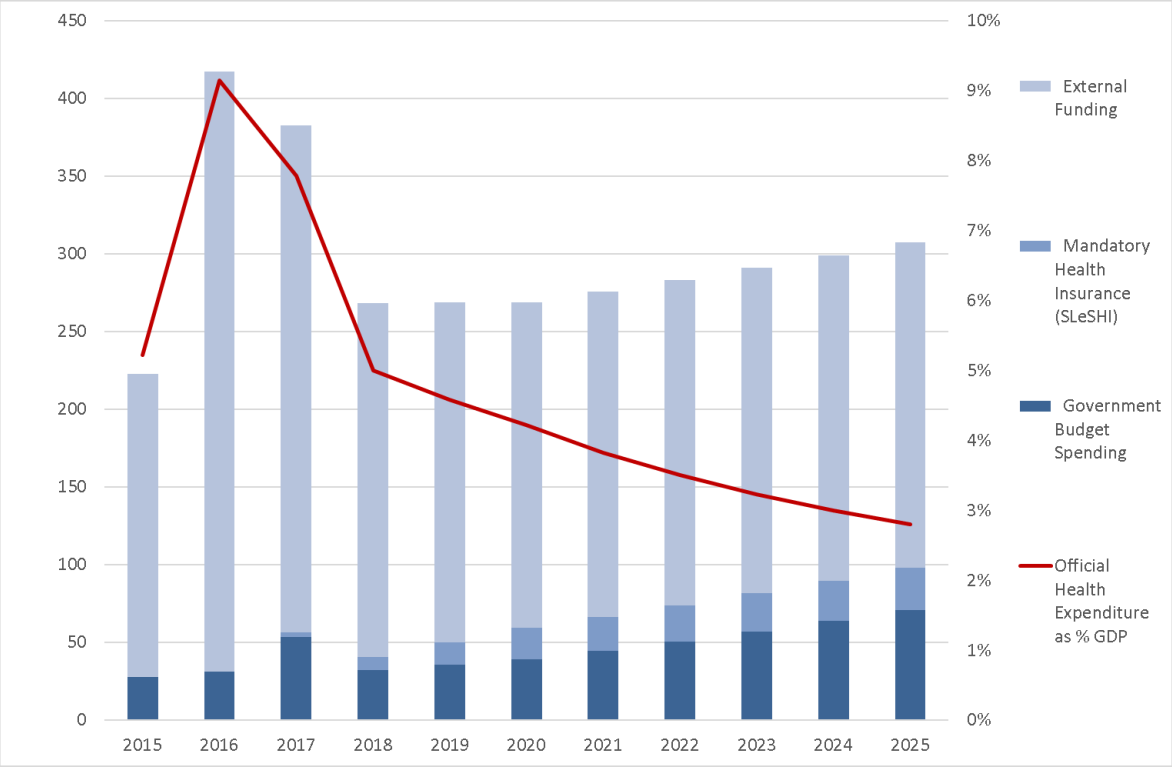
Figure 15: Available THE (M USD and as Proportion of GDP)



Source: Authors' calculations

Note: 2015 to 2017 government budget spending is based on the existing budget for those years, and external funding is based on available donor commitments for those years. Both are above trend as they include plans for large capital expenditures.

Figure 16: Available Expenditures for UHC (M USD and as Proportion of GDP)



Source: Authors' calculations

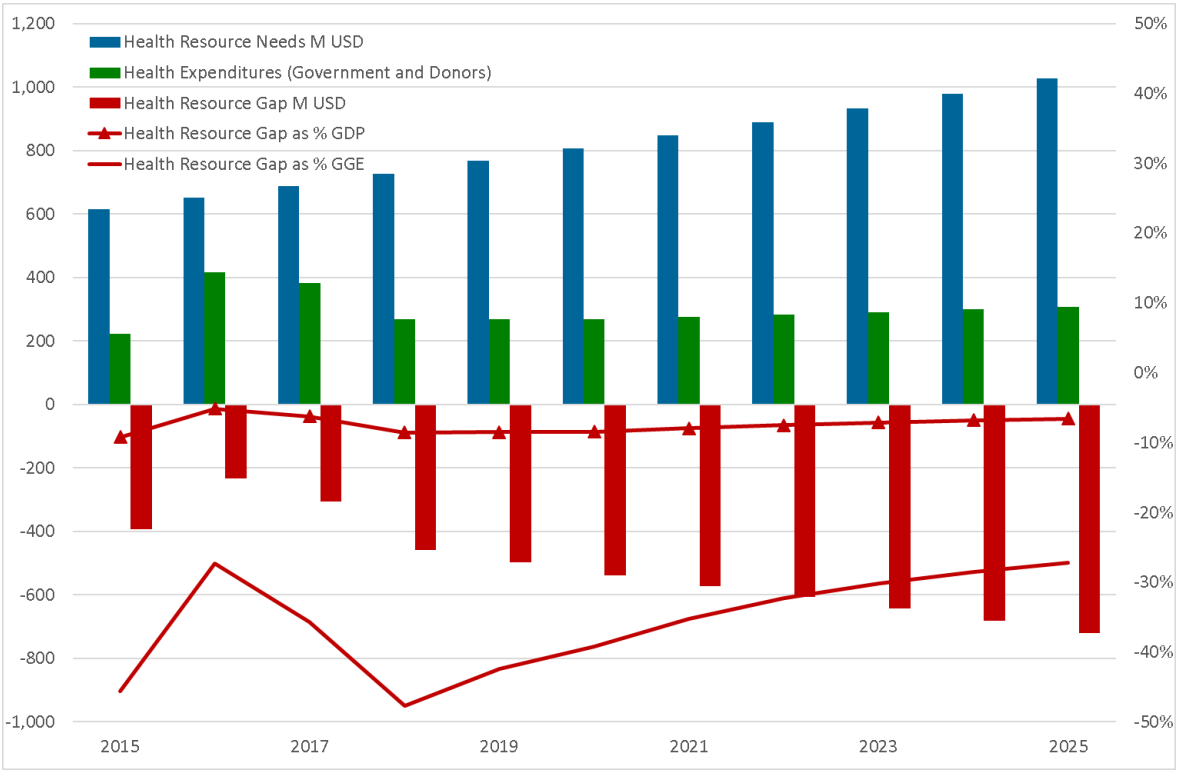
Note: As per Figure 15

Figure 16 provides the available official expenditures for UHC. This is projected to fall from 5.2% of GDP to 2.8% in 2025. On a per capita basis this will rise from 34 USD to 39 in 2025. Comparing this with the THE per capita (83 to 126 USD) it is clear the OOP plays a crucial role in health financing. Currently the estimated OOP is 48 USD per capita, this is expected to rise to 87 USD in 2025. Compared to the average income in Sierra Leone this is only a slight improvement: OOP payments on health fall from 7% to 6% of income per capita. This demonstrates the challenge faced by the GoSL in bringing down such a large proportion of OOP payments in the health system.

6.3 UHC Business as Usual Financing Gap

Taking the official health expenditures and comparing them to the resource needs provides a projected financial gap for UHC, this is shown in Figure 17. This shows a widening financial gap over the ten years from 393 million USD in 2015 to 720 million in 2025. Per capita this means an average of 70 additional USD is required each year. This gap equates to 7.4% of GDP on average each year, and 36% of GGE. In sum these projections suggest that if the current health financing policy is continued there will be inadequate funds to meet UHC needs.

Figure 17: UHC Business as Usual Financing Gap (M USD and as Proportion of GDP and GGE)



Source: Authors' calculations

6.4 Maximizing Fiscal Space for UHC

This section looks at how GoSL can close this health financing gap with a mix of domestic policy options. A revised gap showing the potential impact of these policies will be aggregated into one combined resource gap for UHC in the concluding section.

6.4.1 Funding Options

The four sub-groups of domestic funding options for UHC are the same as for what was discussed under FHCI: official government revenues (budget and MHI); hypothecated or earmarked taxes for health; efficiency savings; and borrowing. Each will be assessed in term for Sierra Leones' long term path to UHC. The background discussion to each type of funding will not be repeated as they have been discussed in FHCI section 5.4.1.

6.4.1.1 Government Funding: Budgetary Allocation and MHI

As mentioned above public spending includes central budget allocations, transfers to districts and payments to MHI (SLeSHI in Sierra Leone). Two main policies are being discussed at present:

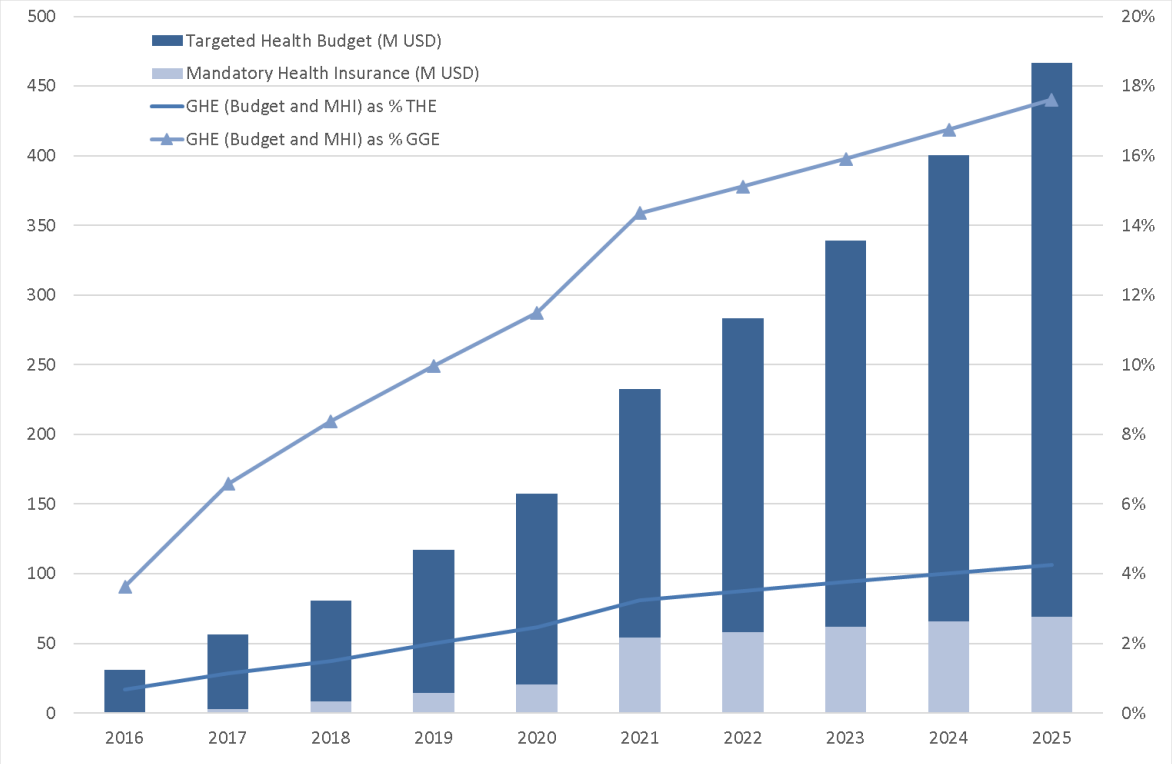
Budget Allocation - The target for public spending on health in this second scenario is aligned with the GoSL's own goal: 15% of total government expenditure as per the Abuja Declaration. The Director of Budget in MOFED stated that this was a goal that the GoSL were serious about. In his view this should be achieved by 2025; possibly rising to 10% of GGE in the next five years, and then onto 15% over the subsequent five years[100].

Mandatory Health Insurance – The longer term policy to develop a strong MHI, beginning with a pilot scheme for the security sector under the SLeSHI umbrella in 2016. This will cover formal sector employees and possibly integrate the FHCI beneficiaries all within the next ten years. The HSRP states that "*Universal health coverage remains a key ideal of the Government of Sierra Leone as articulated in the Agenda for Prosperity ... Establishing and implementing a National Health Insurance, in particular a community-based health insurance scheme using a tiered approach has been shown to be the best option for ensuring universal health coverage"*[101]. However, the SLeSHI plans are in their infancy with no actuary data underpinning serious costing and roll out scenarios as of yet. There are large costs to setting up and running a MHI scheme and the details of organisational structures have not yet been discussed. There is the possibility that the SLeSHI will require much input before any solid projections can be presented.

If these two plans are taken into consideration the results of this increased investment in health suggest that an additional 213 M USD could enter the health system on average each year – as compared with the business as usual scenario. As is shown in Figure 18 these additional funds would equate to 2.7% of GDP and 12% of GGE, on average over the time period. Taken in conjunction, these changes to policy on health would close the gap by 2022.

[100] Stakeholder interview, January 2016.
[101] MOHS (2015) HRSP, page 60.

Figure 18: Projections for Increased Public Spending on UHC (M USD and as Proportion of THE and GGE)



Source: Authors' calculations

Whilst the regular annual increase in budget allocation (and to a smaller extent the development of MHI) is a sustainable method of prioritizing health without destabilizing other sectors, it leaves a medium term financing gap. As has been discussed, the growth and development of Sierra Leone's economy to a middle income status and widening of its tax base will eventually improve domestic health financing, but in the near term some new finance needs to be found to fill the gap.

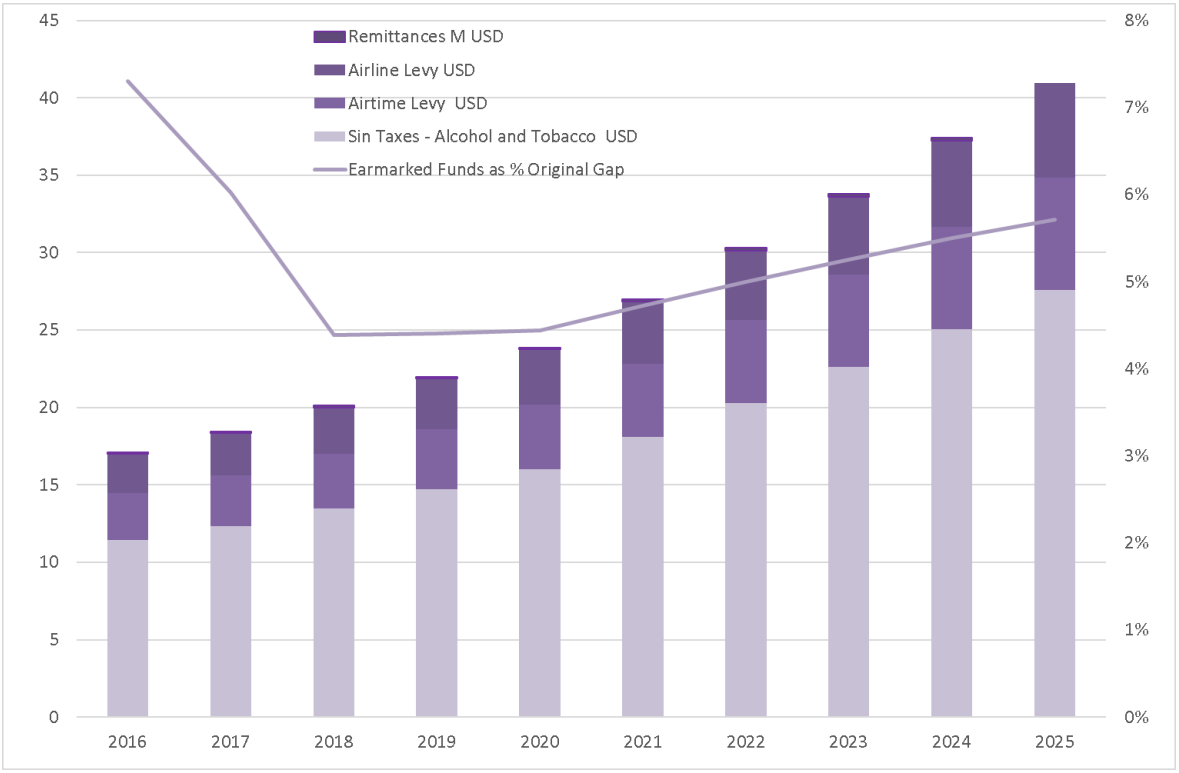
6.4.1.2 Earmarked Taxes

Earmarked, or hypothecated, taxes can be a short term win in a developing country where financing needs are not expected to be met by longer term tax reforms. They can be quick to set up, easy to administer, progressive and bring sustainable and stable fund to the health sector.

Four types of taxes have been assessed for their applicability to the Sierra Leone economy and potential funding stream for health. These are sin taxes (tobacco and alcohol), a mobile phone airtime levy, a levy on flights into Sierra Leone and a tax on remittances received. The background to these have been discussed at length in the previous chapter for FHCI, the same logic applies to UHC. However, in this situation the funds from the earmarked taxes would go into the health budget to be distributed as the MOHS thought best and not directly to FHCI.

The projections suggest that Sierra Leone could gain an additional 27 million USD a year over the projection period if all earmarked taxes were implemented, Figure 19. This would be the equivalent of raising an additional 0.4 percentage points of tax:GDP and would close the financing gap by 5%.

Figure 19: Projections for Earmarked Taxes for UHC (M USD and as Proportion of Original Gap)



Source: Authors' calculations

However, it is unlikely that these four taxes will be implemented simultaneously for health. The arguments for and against each are discussed in the previous chapter. The monetary values would not vary from those found in the FHCI chapter – the tax remains constant only the sector where the tax revenues would be sent would change. The values of each compared to the UHC funding gap are set out here, with some summary conclusions for the relevance for funding UHC:

- **Sin Taxes** – Could raise enough funds over the time period to cover 5.3% of the UHC gap. However, this is a cautious estimate and a deeper analysis of the industry fundamentals and current taxation rates could potentially bring more resources. Tobacco and alcohol have known health risks and health costs which could bring some form of public support for this tax.
- **Airtime Levy (Mobile Phone)** – Projections suggest this could close the financing gap by around 1%. Although a popular idea in Sierra Leone at present other countries have found it could be a regressive and destabilising tax. The sector has been a strong growth contender in many developing countries with banking and agricultural services developing rapidly.
- **Airline Levy** – This could close the gap by 1%, but is a strong contender due to its progressivity; i.e. it is a luxury tax. A deeper inspection of the airline industry and tourism plans could more accurately define how much is a reasonable price and may be able to increase the projected annual revenues from those cautious ones considered here.
- **Remittances Tax** – Brings only a very small amount to the table; closing the gap by only 0.03%. Moreover, it is a risky policy given the limited financial development in Sierra Leone and nascent banking sector. It could move more money into unofficial channels and it is a regressive tax (the poor depend on remittances for non-luxury items).

In sum the sin tax or airline levy could be the most feasible earmarked levies to consider implementing to fund health in Sierra Leone for the moment (notwithstanding the longer term possibility of mining revenues tax mentioned in the previous chapter). More analysis would need to be carried out to gain a solid comprehension of the industries concerned and to create a strong economic and social argument for this policy.

6.4.1.3 Efficiency Savings

The World Health Report 2010 highlighted that at least 20% and as much as 40% of all investment in health is wasted and argued that it is unrealistic to expect to be able to achieve UHC solely by raising additional resources: "*While raising more money for health is crucial for lower-income countries striving to move closer to universal coverage, it is just as important to get the most out of the resources available*"[102]. Table 5 in section 5.4 on Efficiency in FHCI presented the ten leading causes or sources of inefficiency identified by the report.

The 2010 World Health Report also attempted to map out what countries can do to modify their financing systems so they can move more quickly toward the goal of universal coverage while sustaining the gains already achieved (these are at a general level and so will relate to FHCI not only UHC). The overarching argument of the report is that all countries can implement interventions across a variety of areas in order to improve the efficiency of their health system. These interventions can involve:

- Efficiency gains extracted through more effective governance;
- Reducing fragmentation in the flow and pooling of funds for health;
- Taking a more strategic approach when providing or buying health services;
- Optimising the incentives inherent in the health financing system; and
- Efforts targeting particular areas of the health system (such as medicines).

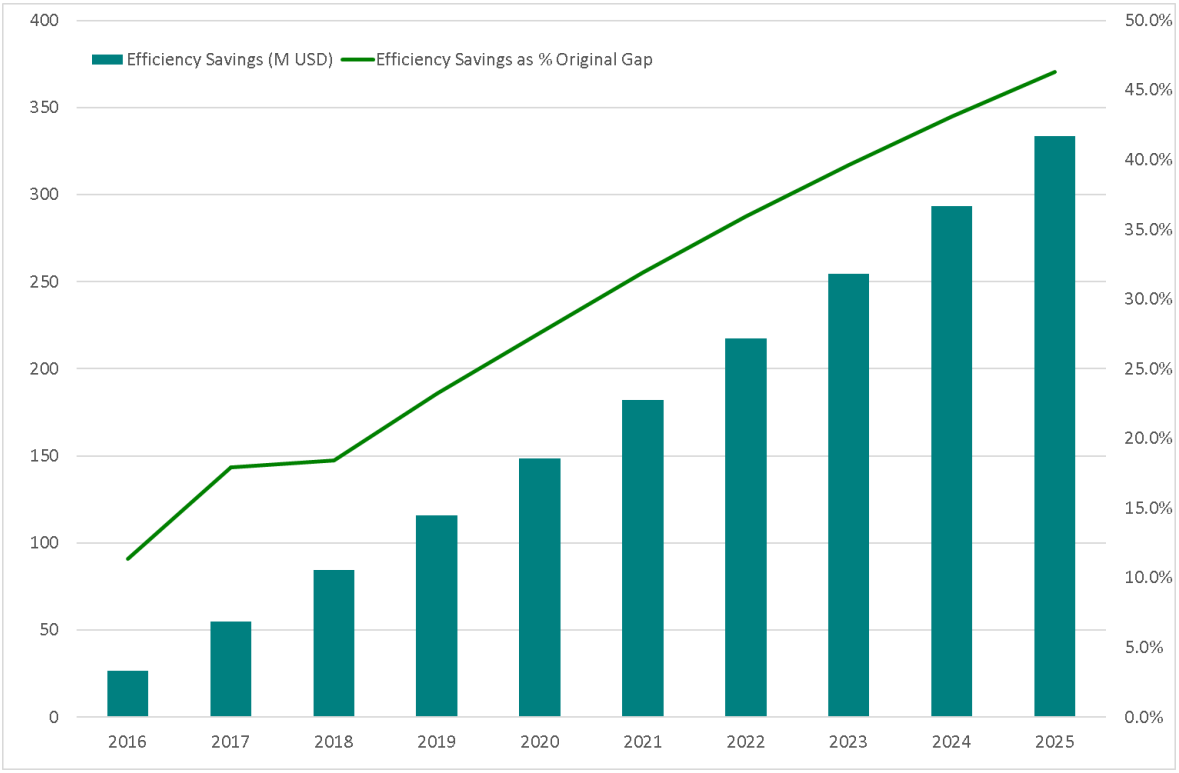
Of course, solutions would need to be tailored to each country's specific needs and circumstances. However, eliminating just some of this waste would enable poorer countries to move more rapidly toward UHC while richer countries would be able to improve the availability and quality of the services on offer.

The methodology used to estimate the magnitude of potential savings from imposing efficiency measures is based on international comparative performance (see Annex A for full details). The results of the DEA carried out by Zeng (2014) show that Sierra Leone is relatively inefficient: 80% less efficient compared with those countries producing at the production frontier. If Sierra Leone was to continue on an efficiency improvement path it is projected to be only 67% less efficient by 2025, meaning the country would be 33% as efficient as the most efficient countries. This supports the idea that OOP is very high in Sierra Leone due to the health system being constrained with great inefficiencies[103].

The impact of reducing inefficiencies would be that the volume of resources needed for health could be reduced if the same amount was spent more effectively; this would then bring down the health resource needs by an average of 171 million USD a year, as shown in Figure 20. This would reduce the financing gap by almost a third over the time period. This value is a cautious estimate as it does not assume any new focus on reducing inefficiencies, it simply projects the recent past trends in reducing inefficiencies.

[102] WHO (2010).
[103] Discussed by stakeholders in a number of meetings, January 2015.

Figure 20: Projections for Efficiency Savings for UHC (M USD and as Proportion of Original Gap)



Source: Authors' calculations

6.4.1.4 Borrowing

The last option available to a government to close the health resource gap domestically is to borrow. For Sierra Leone, under these macroeconomic and health financing assumptions, borrowing is needed to meet UHC care needs assuming resources are not found from the international donor community. Over the foreseeable future Sierra Leone simply does not have the domestic resources to fund UHC in a sustainable manner.

Insights of what constitutes sustainable levels of public debt have typically been subject to debate between proponents of fiscal discipline and those that argue that investments in social protection have direct economic returns or contest the grounds on which those that favour more conservative fiscal policy define debt sustainability benchmarks. In light of this recent acceptance of the relativity of what used to be received wisdom on debt sustainability, the argument that investment in health accrues to future generations gains prominence. For this reason, a debt sustainability analysis is carried out to determine whether Sierra Leone has any room to consider borrowing for health. First we will discuss the theory and evidence around borrowing for health, the amounts Sierra Leone would require and then the possibility of a health bonds and trust funds.

Borrowing for Health: Theory and Empirical Evidence

The purpose of government borrowing is to adjust the timing of government expenditure. Instead of spending a sum each year on a particular expenditure, government borrowing brings all the expenditure to the current year in return for a future stream of repayments. As such, government borrowing is simply an inter-temporal reallocation of expenditure. However, in addition to the future stream of repayments, government must also pay interest on its borrowing. For this reason, it is generally accepted that government borrowing should only be used for capital expenditure,

where the future returns from an investment will outweigh the cost of borrowing.[104] Under this thinking, government borrowing should not be used to finance a permanent increase in current expenditure.

A study carried out to assess the applicability of an HIVAIDS bond found that HIV expenditures, although classified as current expenditure, were actually 'time-limited'.[105] The authors claim that the cost–benefit analysis of these expenditures is positive, with the cost per life year saved lower than many economic valuations of a life year would suggest. Therefore, while far from a typical 'capital' investment, a HIVAIDS bond – and potentially a health bond – represents a cost-effective time-limited expenditure and so has characteristics that could warrant financing through borrowing. This is not limited to HIV spending but much of health expenditures.

Thus, for countries that do not already have high levels of debt, particularly those with high levels of growth, there is considerable potential to raise funds from borrowing. However, unlike the other mechanisms this source of innovative financing must be repaid.

Borrowing is increasingly a financial instrument that is open to many low and middle income governments, partly driven by the development of local financial markets, and the recognition that low and middle income countries are a destination for international investment. Countries can use different instruments to raise capital from loans: through commercial banks, development banks and government bonds. Commercial bank loans are often more expensive, making concessional loans from development banks or funds generally the preferred option[106].

In recent years government bonds, where governments issue debt securities on the national or international financial market through a broker, have gained in popularity. In October 2007 Ghana took the lead for Africa (surpassed only by South Africa) in successfully issuing a 750 million USD bond. Nine other countries have followed suit and by February 2013 8.1 billion USD was raised with an average maturity of 11.2 years and an average coupon rate of 6.2%[107]. While successful in raising additional capital the cost is much higher than these countries' outstanding debt which carries an interest rate of 1.6% over 28.7 years, on average[108].

Whether or not, and how much additional borrowing any country can afford is a matter of debate. Moreover, borrowing to cover social expenditure, especially recurrent social expenditure, is very uncommon. However, some authors, such as Antonio C. David, an economist at the IMF, argue that if future generations benefit from today's investment in HIV programmes, the current generation should not bear the entire burden, which may justify borrowing against future income for current HIV expenditure[109]. This argument then reinforces the one which pleads to recognise the economic returns of some categories of social expenditure and health in general.

Currently there are no widely known examples of countries borrowing for recurrent health programme expenditure. However, to explore this avenue would require to thoroughly assess all long term costs and benefits associated to investments in health. A preliminary debt-sustainability analysis of Botswana and Zambia suggests room for increased borrowing[110]. If the returns on

[104] An exception to this rule is the use of borrowing for temporary counter-cyclical fiscal policy during periods of recession. However, good fiscal policy dictates that any such borrowing must be repaid during the subsequent years of higher growth.
[105] UNAIDS (2011).
[106] Tandon, A. and Cashin, C. (2010).
[107] Gabon, the Democratic Republic of the Congo, Côte d'Ivoire, Senegal, Angola, Nigeria, Namibia, Zambia, and Tanzania.
[108] Stiglitz, J. (2013).
[109] David, A.C. (2009).
[110] Ibid for Botswana, and Lievens, T. et. al. (2011) for Zambia.

investment in HIV programmes over the period of the additional borrowing would exceed its cost, these countries, as would others, could consider this option.

The potential size of borrowing in any given country must be set in the context of maintaining a sustainable debt stock. The IMF/World Bank Debt Sustainability Framework proposes a limit for the Net Present Value of external debt of 40% of GDP.[111] If above this ratio this is not necessarily a problem in itself. Some countries have a strong public management system that ensures projects go as planned and so repayment schedules are not in question, as well as a conducive macro environment. If above the ratio and with weak public management there is a greater chance of debt instability and increasing debt for health would not be advised.

One final note on borrowing relates to the linkages between health external funding and foreign exchange. External funding is overwhelmingly paying for expensive imports of drugs and the levels of foreign exchange received from international donors boosts foreign exchange reserves. If donor support declines substantially many countries, including Sierra Leone, may be in a position, not just of a resource gap for health expenditures and an inability to purchase the imported drugs, but also in a situation where they no longer have the foreign exchange to pay for general imports. Borrowing on the international market could help mitigate against a balance of payment crisis when donors retreat, as borrowing on international markets would bring in fresh foreign exchange.

In sum in theory borrowing for health is justifiable in social and economic terms. But, whether to borrow for health and how much are country specific questions.

How much would Sierra Leone need to Borrow?

The projections suggest that Sierra Leone would need to borrow an average of 178 million USD a year over the next ten years to fully close the health resource gap. The annual borrowing requirements are outlined in Figure 21. This peaks in 2018 at 314 million USD before government begins to allocate more to health to meet he Abuja target. This amount of borrowing would cover 80% of the resource gap in 2016 before any other domestic financing is imposed. But as other domestic financing mechanisms are implemented (15% budget, health insurance, earmarked taxes, and efficiency savings) borrowing needs would decline to zero by 2025. On average over the ten years the borrowing requirements would be equal to 3% of GDP.

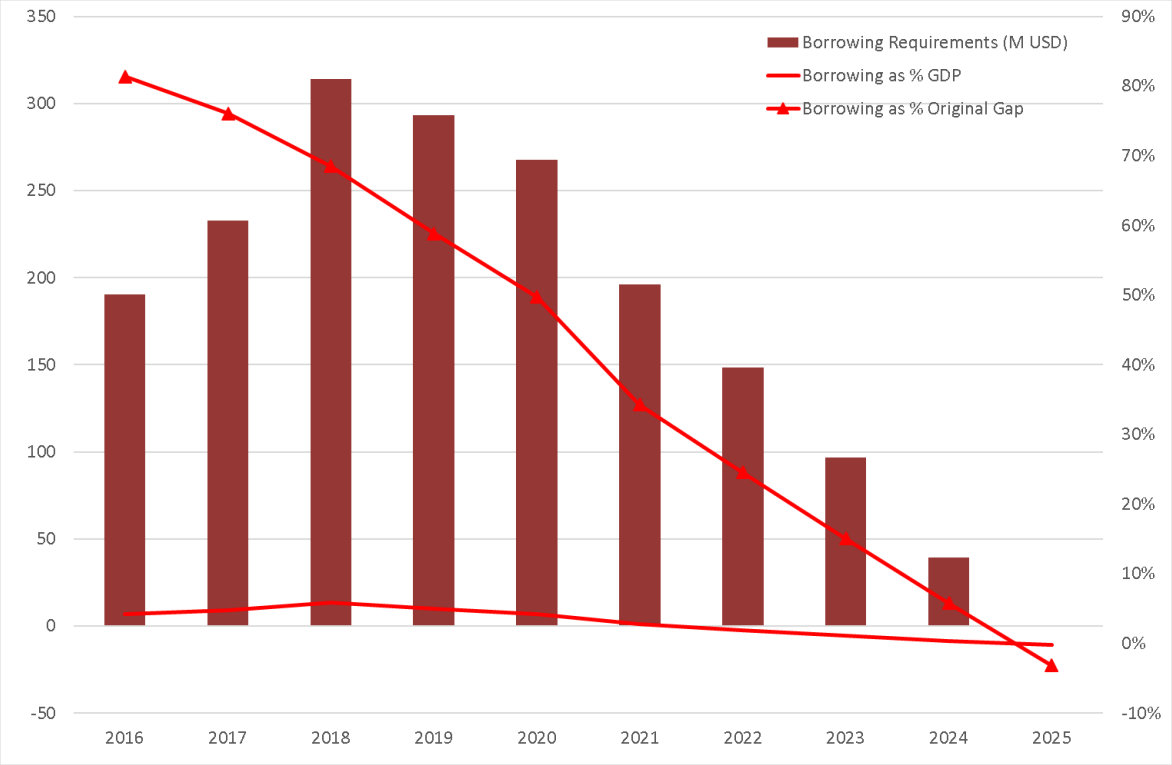
The debt-to-GDP ratio in Sierra Leone was 30.9% in 2015. The 'business as usual' scenario projects this averages 29.5% over the next ten years. However, with the rise in borrowing required to close the health financing gap Sierra Leone would see the debt-to-GDP ratio rise by 3 percentage points to an average of 32.5%. This remains within the recommended sustainability level of 40%.

The most recent DSA from the IMF and The World Bank puts Sierra Leone at a 'moderate risk of debt distress'[112]. However, this does not take into account the Ebola outbreak and iron ore price collapse. The latest IMF Article IV states that these duel factors have caused a "*deterioration in macroeconomic performance [which has] have moved Sierra Leone close to being at high risk of debt distress*"[113]. It goes on to say that the government's policy is to use grants and concessional financing for critical projects. In this light it is unlikely that there would be much support for borrowing for health and given the large amounts required each year it seems more of a structural

[111] See World Bank (2006). In fact, this ratio is for countries with a medium-level quality of policies and institutions, as measured by the Country Policy and Institutional Assessment. A lower quality of policies and institutions would imply a lower limit.
[112] Quoted in IMF (2015).
[113] Ibid page 3.

health financing problem rather than a one-off financing requirement. As such borrowing would not be recommended as a sustainable health financing plan.

Figure 21: Projections for UHC Borrowing Requirement (M USD and as Proportion of GDP and Original Gap)



Source: Authors' calculations

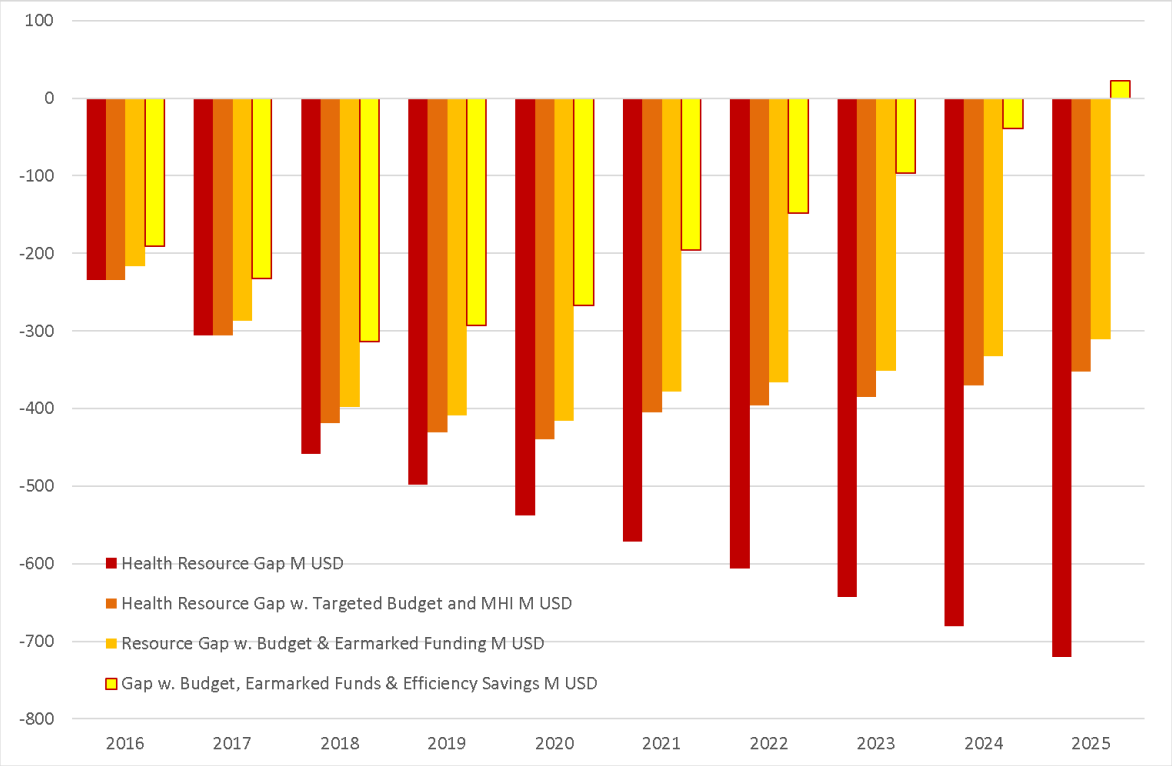
6.4.2 Revised Financing Gap

Taking all of the health prioritising activities discussed so far together we are left with the scenario described below in Figure 22 for the health resource gap. This includes the expenditures from government and donors only in trying to achieve UHC needs. The developments projected under the maximising fiscal space for health can be explained in the following steps:

6. The original financing gap (red bar chart) is the resultant gap under scenario 1 'business as usual', (as per Figure 17). By 2025 the gap is projected to reach 720 million USD, which is 6.6% of GDP.
7. The next bar chart (orange) shows how the gap can be reduced through government funding. Moving towards the 15% Abuja target and developing SLeSHI could reduce the gap by a half by 2025, however, the gap remains at 352 million USD. The impact of this action is not seen until 2018 when new budgets can be planned and there can be new focus on health spending, it has a substantial impact on the resource gap.
8. The third bar chart (gold) shows the sum of the government's actions (in point 2 above) with the potential resources from earmarked taxes. These innovative funding mechanisms could reduce the financing gap by 5%. In the unlikely situation wherein the GoSL was to implement all new taxes on top of raising budgetary allocations and health insurance contributions the financing gap would fall to 311 million USD in 2025, accounting for 0.4% of GDP.

9. The final bar chart (yellow) takes the situation in point 3 above and adds in renewed efforts of the government improve efficiency. This leaves a final financing gap of 39 million USD in 2024, and a surplus of 23 million in 2025; i.e. if all these actions are considered in conjunction the financing gap can be filled in 2025.
10. Under this scenario, if the GoSL wanted to fully close the gap to cover all UHC needs over the entire period they would need to borrow. The amount needed to borrow is represented by the yellow final bar chart, which averages 178 million USD a year across the ten years. As a proportion of GDP this would be the equivalent of borrowing 3% of GDP a year; peaking at 5% in the first five years and falling to zero by 2025 as other funding sources take effect. However, it is not inevitable that the government will need to borrow, and for Sierra Leone borrowing these large sums of money are not advised. This gap can be filled by extending other domestic mechanisms or gaining extra donor funds.

Figure 22: UHC Maximising Fiscal Space Financing Gap (M USD)



Source: Authors' calculations

In sum the longer term plan to raise budget allocation for health to 15% of GGE will have a significant impact on the financing for UHC. This presupposes an investment into widening the tax base and increasing domestic revenues. These scale of reforms will take time and so to cover the near term health needs Sierra Leone has the opportunity to implement earmarked taxes. Additionally, fiscal space can be found when overcoming inefficiencies in the health sector which can provide efficiency gains over the ten years. The impact of SLeSHI may be negligible over the next ten years as the scheme is in its development phase. All of these domestic efforts however will not be sufficient to cover the financing gap. Since borrowing has been written off as a possibility for Sierra Leone it means that external financing will be required for the foreseeable future to deliver a basic package of health services to the population.

The MoHS is aware of the need for significant support from partners and various actions have been taken to try to align GoSL and donor policy and plans. Indeed, after the Ebola outbreak external funds grew and there was a keen understanding that better coordination of finance and

programmes was needed. Service Level Agreements (SLAs) have been implemented to improve coordination and delegates part of the GoSL mandate to non-Government entities[114]. They aim to allow the MOHS to capture which partner is implementing which activities in what locations whilst allowing MOHS to maintain the leading role in setting health priorities. These logistical advances can improve the efficiency of external funding and align available financing to health priorities. However, there is space for more ODA in Sierra Leone; between 2010 and 2015 ODA was less than 5% of GDP, compared to the low income country average of 8%[115]. If Sierra Leone was able to attract greater amounts of ODA initiatives like the SLAs would need to be strengthened and a movement towards more stable and sustainable on-budget funding would be preferred. However, as mentioned in the chapter on FHCI the required improvements in PFM to induce donors back on-budget have not occurred. These bottlenecks to greater on-budget funding, and potential greater volumes of funding, need to be overcome before UHC becomes a reality for Sierra Leone.

One final note on OOP before we conclude. The best estimate currently for OOP health expenditures are 58 USD per person in 2013 from the NHA, this accounts for 61% of THE. The World Health Report of 2010 stated that: *It is only when direct payments fall to 15–20% of THE that the incidence of financial catastrophe and impoverishment falls to negligible levels*[116]. Clearly the GoSl policy to reduce these are a priority. This maximising fiscal space scenario has not included OOP expenditures but if these are projected forward on their current trends they may be reduced to less than 50% of THE in Sierra Leone by 2025. For these to be reduced further the GoSL should undertake further investigation as to what OOP is being spent on. This can inform the longer term policy goals of UHC; accessible and affordable health care for all.

[114] See MOHS website: http://health.gov.sl/?page_id=3761. Led by HSS Hub and in early stages of implementation.
[115] World Bank Development Indicators
[116] WHO (2010), Health Systems Financing: The Path to Universal Coverage, World Health Report 2010 (Geneva: WHO).

7 Conclusions and Policy Recommendations

Sierra Leone is a low income post-conflict fragile state with a per capita income of 660 USD in 2015. Health is essential for strong economic growth and social development. However, the scale of household OOP expenditures are increasing the risk of CHE and must be reduced to create a truly FHCI and begin the path towards UHC.

The business as usual scenario has shown that if Sierra Leone FHC and UHC policy continues both areas will be increasingly underfunded within ten years. Neither the economy nor the tax base are projected to be strong enough to create the fiscal space to invest as needed in health. This is under optimistic scenario of moving from a tax to GDP ratio of 9% in 2015 to 20% by 2025. Therefore, to maximise fiscal space under these conditions a number of domestic resource mobilisation options were assess, the key findings are spelt out below:

FHCI Sustainable Financing Recommendations

1. ***Increased Budget*** - Over the longer term government budget allocation to FHCI needs to rise. This requires a precursor to be effective; a clear understanding of what constitutes expenditures for FHCI should be developed across Government. Thereafter the true nature of FHCI expenditures and needs will be identified and can be worked towards.
2. ***Implement Earmarked Taxes*** – Levies for FHCI could be implemented as near term solutions to the funding gap, (there is certainly fiscal space for this with a current tax:GDP ratio of 9%, compared to low income average of 17%, or even the fragile state average of 14%). Five types have been analysed and three have potential in Sierra Leone: Sin Taxes, an Airline Levy, and a country-specific tax where funds come from Withholding Tax revenues. More focused research would need to be carried out to provide country-specific industry risks and sensitive analysis on levels of taxation before one was chosen to be implemented. As it stands the Withholding Tax being considered by MOFED will not cover FHCI costs.
3. ***Make Efficiency Savings*** – Inefficiency analysis can be carried out listing easy to reach areas for short term gains, and how to move towards a more efficiency FHCI over the long term.
4. ***Increase External Funding by Investing in PFM*** - External financing will be required over the next ten years as Sierra Leone is a low income fragile state with a narrow tax base. A more sustainable FHCI system would involve a closer alignment of donors with government systems and especially more on-budget funds. Donors should consider supporting domestic resource mobilization as well as FHCI to ensure long term sustainability. Support here could involve helping to improve and develop the PFM systems for FHCI and health in general as well wider tax areas. Without external support FHCI is unlikely to continue delivering services effectively.

UHC Sustainable Financing Recommendations

1. ***Fiscal Position and the Abuja Declaration*** – The GoSL has stated improving tax revenue collection is a priority and it is expected it will continue to require reform over the next ten years. Therefore, there is not expected to be a short term fix for the lack of general domestic tax revenues for budgetary allocation to health. However, there is strong political support from The Presidency and MOFED to improve health outcomes and so increase health financing. As such the Abuja Declaration is a credible goal to be met by 2025. Therefore, with a wider tax base and 15% of the GGE allocated to health Sierra Leone

could more than double its domestic resources to health. These actions would go a long way to set the basis for self-sufficiency.

2. ***Implement Earmarked Taxes*** – Levies for health could be supported by the Sierra Leone public to fund health initiatives especially Sin taxes where 'unhealthy' habits are seen to pay for health costs, or an Airline levy where the rich are taxed more than the poor. As mentioned there is fiscal space for these initiatives and they can be relatively easily and quickly implemented to fill the short term gap.
3. ***Mandatory Health Insurance*** – SLeSHI is in its development phase. With the rudimentary plans in place at the moment it is expected that there will be little impact in the next ten years. The scheme need actuarial back up, formalised roll out plans and a thorough costing.
4. ***Make Efficiency Savings*** - The Sierra Leone health system in general is seen as inefficient. Space can be found from removing inefficiencies. More research would be required to identify areas of 'quick wins' and longer term gains.
5. ***Borrowing is Not a Sustainable Option*** – Increasing debt to pay for health is not recommended. The amounts required over a long period of time would not be conducive to a sustainable financing plan especially under the current volatile and vulnerable economic conditions.
6. ***Create an Advocacy Strategy to Attract External Funding*** - Simply put there is not enough domestic resources to pay for the requirements of UHC in the next ten years. Health policies and implementation plans, alongside costing estimates can be used as advocacy tools to gain extra external support. However, donors need more than strong political will to disburse funds, as mentioned the PFM limitations should be overcome to induce more on-budget funding for health. Short term efforts to overcome these problems would benefit long term commitments from donors and provide a stronger basis for more efficient external and domestic financing for the sector.

Finally, it is important to note the information limitations incurred in carrying out this fiscal space analysis. There is a need for investment in improving data on health financing so these recommendations for sustainable financing can be fine-tuned to the Sierra Leone health and fiscal environment. Two key areas:

- Improve M&E for capturing true costs of FHCI
- Improve method of measuring OOP.

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Annex A Methodology

A.1 Overview of the Macroeconomic Framework

Introduction

The macroeconomic approach adopts a numeric framework, known as a financial programming framework, which is designed to assist in the development of a consistent approach to the different aspects of economic policy. The key feature of the financial programming framework is that it is based on a comprehensive view of the national economy, comprising four inter-dependent sectors. The four sectors are:

- The Real Sector, which relates to productive activities of the economy.
- The Fiscal Sector, which captures government transactions.
- The External Sector, which includes all transactions between the country in question and other countries.
- The Monetary Sector, which includes the transactions of the banking system and of the central bank.

Whilst not a sector in its own right, attention is also given to the debt of the central government, as the stocks and flows of the government's debt are reflected in the fiscal, external and monetary sectors.

At the outset, it should be clearly understood that the macroeconomic framework is not an economic model. It does not constitute a set of equations which attempt to model the behaviour and interaction between different sets of economic agents. In economic terminology, it is not based on a set of econometrically estimated behavioural and/or structural relationships which drive economic outcomes.

The macroeconomic framework is a tool for ensuring the consistency between different sets of assumptions about the future course of the economy. In other words, by starting with a set of assumptions about the economy (e.g. GDP growth), the framework assesses the impact of different policy options on the four sectors of the economy in a consistent manner.

Key components

The starting point for the macroeconomic framework is the tables published on the country's macroeconomic performance by the IMF. These tables are produced in a standard format for all countries as part of the IMF's Article IV surveillance activities. The standard IMF documents include five tables that are replicated in the macroeconomic framework used for this analysis. These are:

- Table 1: Selected Economic Indicators, containing summary data from the real, fiscal, monetary and external sectors.
- Tables 2 & 3: Fiscal Operations of Central government, describing the government budget and its financing.
- Table 4: Monetary Accounts, showing the paths of broad money, net foreign assets and net domestic assets.
- Table 5: Balance of Payments, including indicators on gross international reserves.

These tables are transposed into Excel and expanded further as necessary, to produce data for the fours sectors of the economy described above. This is done through the following six work sheets:

- **Overview:** The Overview sheet includes projections for headline macroeconomic variables such as real GDP growth, GDP deflator and the exchange rate.
- **Real:** The Real sheet provides the projections of the real sector, including values for GDP and its components (including consumption and investment).
- **Fiscal:** The Fiscal sheet provides information on the annual budget for the government, including projections for domestic revenue, expenditure, grants and deficit financing.
- **Money:** The Money sheet provides projections for the monetary sector. It includes the path of key monetary aggregates, such as credit to the private sector.
- **External:** The External sheet provides forecasts for the Balance of Payments, including projections for imports, exports, and gross international reserves.
- **Debt:** Whilst the Debt sheet does not reflect a sector as such, it performs a simple function by taking the debt disbursements, combining these with the existing debt stock and forecast repayments, to project the debt variables into the future.

The different sheets are all linked to each other to ensure consistency, as discussed further below. Additional worksheets are used to group together the key macroeconomic assumptions, to include the data on health resources and to present charts of macroeconomic indicators.

Theoretical approach

The framework uses four macroeconomic accounting identities to ensure consistency between the different sectors of the economy. A macroeconomic accounting identity is a relationship between a set of economic variables that must hold true by definition. For example, GDP must be equal to the sum of its components (investment, consumption, imports and exports). Each sector has its own accounting identity.

The framework ensures consistency between the sectors in two ways. Firstly, the macroeconomic framework ensures that all of the accounting identities are met. It does this through the use of a "residual" item, which is set via a formula to ensure that the identity is always true. For example, if we have already determined GDP, investment, imports and exports, then there can only be one value for consumption that is consistent with the accounting identity for the real sector (i.e. Consumption = GDP – Investment – Exports + Imports). In this case, consumption is known as the "residual".

Secondly, the macroeconomic framework ensures that wherever a variable features in more than one sector, the projections for that variable are the same in both sectors. For example, Imports features in both the real sector (as a component of GDP) and the external sector (as a component of the Current Account). Thus, the macroeconomic framework will ensure that whatever values are used for Imports in the external sector are also used in the real sector.

Macroeconomic accounting identities

This section will examine the accounting identities used in each sector and the residual that is used to balance them.

The real sector

Basic Identity:

GDP = Consumption (Private + Public) + Investment (Private + Public) + Exports – Imports

Residual:

Private Consumption

The primary assumption in this sector is that of growth in real GDP. This is used to extrapolate the current figure for GDP into the coming years. An assumption is also made about the future path of the GDP deflator in order to convert between real GDP and nominal GDP.

Having determined the value of GDP in future years, it is necessary to determine its composition. Public consumption (i.e. government current expenditure) and public investment (i.e. government development expenditure) are determined by the Fiscal sheet (see below). By making assumptions about the share of investment in GDP, it is possible to produce forecast figures for investment. Finally, Imports and Exports are linked from the External sheet (see below).

Therefore, having determined the total value for GDP and all but one of its components, the residual component must be set to ensure consistency with the basic accounting identity. In this case, private consumption is used as the residual and is equal to GDP plus imports, less exports, private investment and total government spending.

The fiscal sector

Basic Identity:

Total Revenue – Total Expenditure = Net Borrowing

Residual:

Net Disbursements of Domestic Debt

This sector is focused on the government budget. Firstly, tax revenue is determined (based on an assumption about its share of GDP) as well other sources of revenue, such as grants and non-tax revenue. External grants are converted to local currency using the exchange rate.

Assumptions are made about the government's expenditure (excluding debt service). The interest payments on debt are calculated in the Debt sheet, such that a higher deficit in one year is reflected in higher interest payments in the subsequent year. These factors determine the government's overall deficit and hence the government's borrowing requirement. Future disbursements and principal repayments on external debt are determined by assumption and converted to local currency using the exchange rate.

All that remains is to determine the net disbursements on domestic debt. This is the residual in this sector and it set at a level to balance government borrowing with the overall deficit.

The monetary sector

Basic Identity:

Net Foreign Assets + Net Domestic Assets = Broad Money

Residual:

Net Claims on Other Sectors (a component of Net Domestic Assets)

Net foreign assets are determined by the net flow of foreign currency into the country, which is given by the change in official reserves in the balance of payments (i.e. from the External sheet).

Net domestic assets includes net claims on government and net claims on other sectors (i.e. the private sector). Net claims on government is determined by the outstanding stock of government debt, which is taken directly from the Debt sheet. Net claims on other sectors is the residual in this sector and therefore calculated at the end.

Broad money can derived from the economic relationship between nominal GDP, broad money and the velocity of money (PY=vM). Broad money is therefore calculated by dividing nominal GDP by an assumed figure for the velocity of money.

Having determined everything else using the above assumptions, net claims on other sectors is the residual and is set to ensure compliance with the accounting identify for this sector. It is equal to broad money less net foreign assets and less net claims on government.

The external sector

Basic Identity:

Current Account + Capital Account + Financial Account + Errors & Omissions = Change in Official Reserve Assets

Residual:

Change in Official Reserve Assets

The external sector is essentially a representation of the balance of payments, which captures the flow of foreign currency into and out of the country in question. The current account is determined by assumptions about the import and export of goods and services, income and remittances. Also included in the current account are government interest payments on external debt (taken from the Debt sheet) and external budget support grants (taken from the Fiscal sheet).

The capital account includes external project grants (taken from the Fiscal sheet). The financial account requires assumptions about foreign direct investment and portfolio investment. The only other significant components of the financial account are the disbursements and repayments of external loans to government, which are taken from assumptions in the Fiscal sheet.

Errors and omissions are assumed to be zero in the future. The only item left is the change in official reserve assets, which is used as the residual to ensure consistency in this sheet. The change in official reserves is therefore given by the sum of the current account, the capital account and the financial account.

Key linkages between the sectors

As discussed above, the second source of consistency comes from the use of only one set of forecasts wherever a variable appears in two different sectors. Table A1 summarises the linkages

between different sheets. It is important to note that the link is created from the sheet listed on the left hand side to the sheet list along the top of the table (i.e. imports from the External sheet are transferred to the Real sheet.) To avoid confusion, only the most important linkages are shown, these correspond with the linkages discussed in the text above.

Using the above framework, it is possible to condense the forecasting of the economy, and its various sectors, to just a handful of key assumptions. Using these assumptions, the linkages and identities described above, and a few further details, it is possible to then project a range of macroeconomic variables and indicators into the future.

The framework therefore operates by retaining the IMF projections for the short and medium term and then making a number of high level assumptions for key macroeconomic variables over the long term. These assumptions are based upon an extrapolation of the medium term IMF projections and an analysis of the available information on the economy of the country in question.

Table A.1 Key inter-sector linkages in the macroeconomic framework

To From	Real	Fiscal	Debt	Money	External
Real		GDP (for Revenue projections)		GDP (for Broad Money projections)	
Fiscal	Government Spending		Net Disbursements on Domestic Debt Disbursements on External Debt		External Grants Disbursements on External Debt
Debt		Interest Payments Principal Repayments on External Debt		Debt Stock (for Net Domestic Assets)	Interest on External Debt Principal Repayments on External Debt
Money					
External	Imports Exports		Exchange Rate	Change in Official Reserve Assets	

Incorporating health resources

Health resources can be divided into two forms; revenues and expenditures (where health here can refer to FHCI or UHC). It is important to be clear on the distribution to avoid double-counting the resources. For example, a grant from a donor would be included as a revenue but may also be counted as an expenditure by the government. Table A.2 shows the health resources incorporated into the macroeconomic framework and the sectors that they are linked directly to.

Table A.2 Health resource flows in the macroeconomic framework

Resource Flow	Sector Linkages
Revenues	
External project grants included in the budget	**Fiscal, External**
External project grants not included in the budget	**None**
External project loans	**Fiscal, External, (Debt)**
Tax and non-tax revenues collected by the government and earmarked for Health	**Fiscal**
Domestic borrowing by the government and earmarked for Health	**Fiscal, (Debt)**
Expenditures	
Government (Current) Expenditure	**Fiscal**
Expenditure by external project grants not included in the budget	**None**
Expenditure by private individuals and companies	**Real**

These resources are integrated into the appropriate sectors of the macroeconomic framework. This ensures consistency in both the macroeconomic projections and the health expenditure projections in two ways.

First, those resources that are determined exogenously (either through external factors or by policy decisions) are linked to the macroeconomic framework so that changes in these variables have a macroeconomic impact. For example, higher grants from external donors may (i) increase government expenditure in the fiscal sector and (ii) increase the change in official reserves in the external sector (amongst other effects). Equally, a decision to increase taxes to finance Health will (i) increase the deficit and domestic borrowing and (ii) by higher interest payments on that debt, further increase the deficit in future years (again amongst other effects).

Second, Health resources can be linked to macroeconomic variables to model their size under different scenarios. For example, external grants and loans will be converted into local currency via the exchange rate and domestic resources can be linked to GDP growth to see how they change under different scenarios.

Using the framework above, it is then possible to insert different assumptions for key macroeconomic variables and different health financing mechanisms to examine scenarios for Health expenditure into the future. These scenarios can be supported by various indicators to assess the plausibility of the scenario (e.g. is the share of health expenditure of GDP excessive?)

and its macroeconomic stability (e.g. is government debt sustainable? Is the balance of payments stable?).

A.2 Approach to Projected Donor Funding

Within this analysis a key assumption is that external financing will decline in real terms over the projection period. This assumption affects the macro economy (through budgetary revenues and deficit), as well as the sector-specific health funding scenarios. This section gives an overview of past tends in Overseas Development Assistance (ODA), and the reasoning for declining development assistance in the near future.

Medium term growth rates (2014 – 2016) for international funding are sourced from the OECD. The OECD projections estimate that growth in international aid will be 9% in 2013 and remain at zero percent for the three years from 2014 to 2016. This refers to all ODA from all donors to all countries.

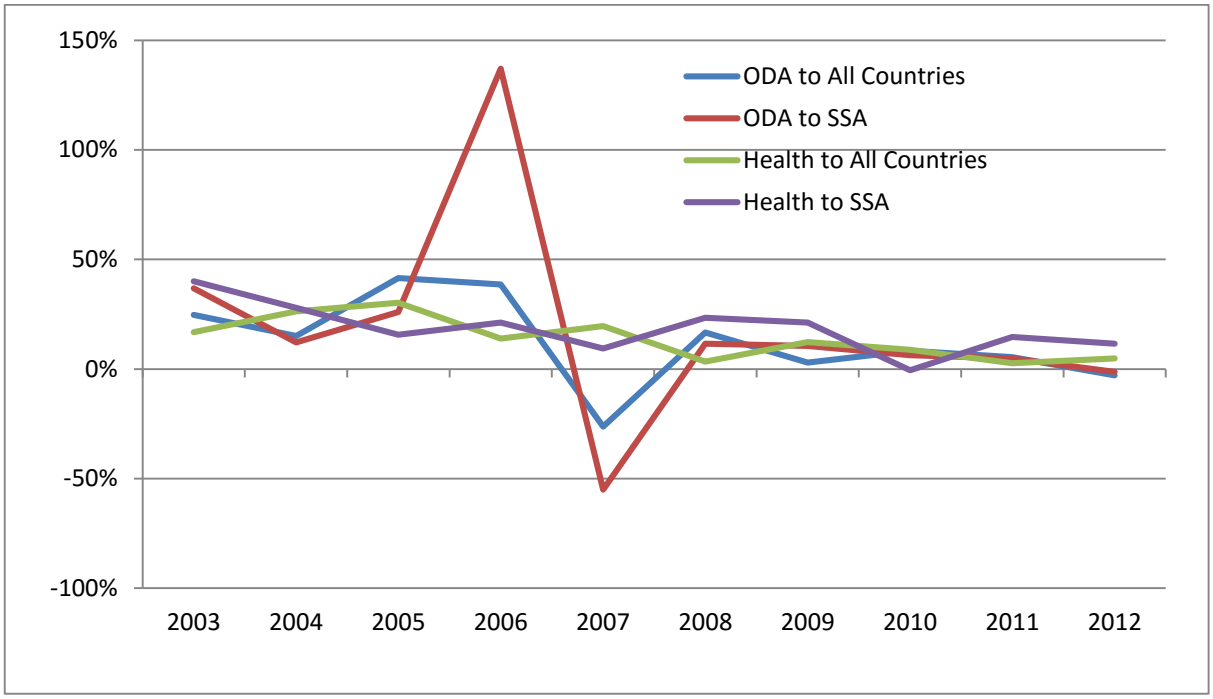
Comparing historic disbursements of total ODA, health ODA, Sub-Saharan African ODA, and SSA Health ODA – see Figure A.1 – it is clear that the trends are similar. Therefore, is has been assumed that medium term disbursements to health would not differ substantially from monies from donors to recipient countries for ODA in general. The total ODA annual growth rates were superimposed onto the baseline data for each country.

Over the longer term two sources suggest overall ODA will be flat (OECD and Development Policy Centre):

- The OECD suggests a rise to middle income and decline to low income (especially Africa) – a function of soft loan availability over grants. There may be a movement towards Asia so Asian aid is equal to African[117].
- The Development Policy Centre concludes that traditional sources of aid may decline, but that this could be offset by rising non-traditional sources, leading to the “overall level of external aid for developing countries remains flat for several years”[118].

[117] http://www.oecd.org/newsroom/aid-to-developing-countries-rebounds-in-2013-to-reach-an-all-time-high.htm.
[118] Davies, R and la O’, M. (2013).

Figure A.1 Comparison of ODA Disbursements (annual change)



Source: Projections from: OECD Outlook on Aid (http://www.oecd.org/dac/aid-architecture/OECD%20Outlook%20on%20Aid%202013.pdf)

A.3 Regression Findings for Public Expenditure Growth and OOP

The methodological background to the public health spending and out-of-pocket multipliers to GDP are elasticities, obtained as follows.

The global pattern of total health spending (which includes both public and private expenditure) is closely related to national GDP. Data from the World Health Organisations based on National Health Accounts (NHA) for the years 2001-11 shows that the global average of total health expenditure (THE) is 7.2% of GDP. Public health spending (general government expenditure on health only) averages 5.7% of GDP globally.

However, THE is not quite proportional to GDP. Figure A.2 shows a scatter-plot of total health expenditure (THE) vs GDP (both per-capita) by country for the years 2001-2011. As can be seen, THE is strongly correlated to GDP (the r-squared value is 0.94, although the log-log plot conceals a large variance, particularly at high levels of GDP per capita). Globally, THE shows an elasticity of about 1.1 with respect to GDP. This implies that GGEH generally rises about 10% faster than GDP.

Out of pocket spending on health is somewhat more variable than total health expenditure (THE), but the National Health Accounts (NHA) estimates also show a global correlation with GDP, as shown in Figure A.3.

As can be seen, the global elasticity for OOP is about 0.86 – implying that OOP rises more slowly than GDP, and that OOP is a larger proportion of household income in poorer countries. This implies that OOP is significantly lower as a proportion of household income in those countries with higher GDP per capita.

Figure A.2 General Government Spending on Health and GDP

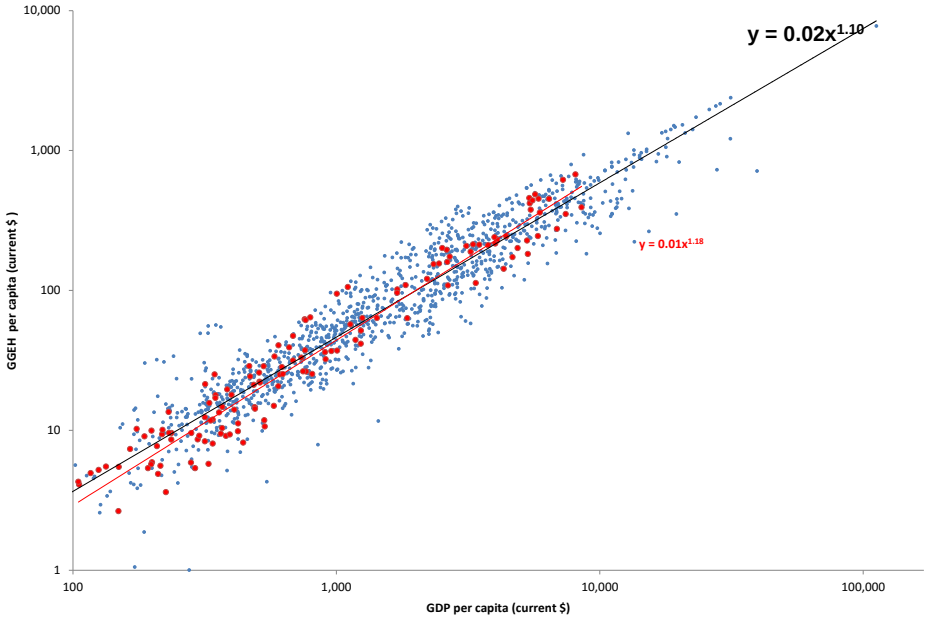
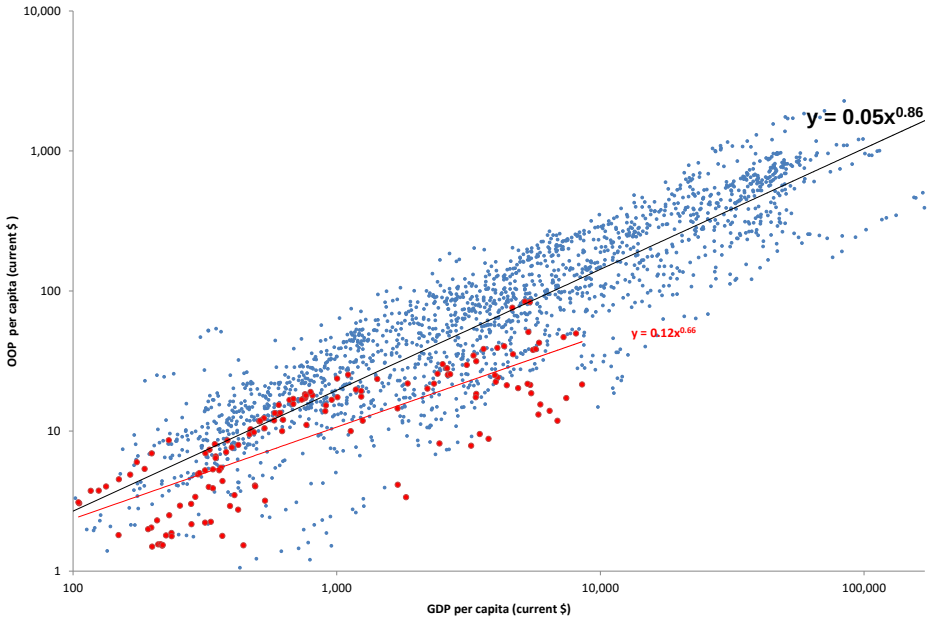


Figure A.3 Out-of-pocket expenditure and GDP



Source: Robert Greener, OPM

Note: Regressions used NHA data combined with IMF GDP estimates on a panel of data. The purpose of these graphs are really to position the SADC countries within a global context, not to come up with internationally valid SADC-specific elasticities. The findings are relevant for country specific case studies.

Annex B Application to Sierra Leone

The core of the fiscal space analysis takes the form of a 'funding gap analysis', under scenarios of 'business as usual' and 'maximised fiscal space'. The analysis is underpinned by a macroeconomic framework to project forward key economic, fiscal and health funding variables. We embed the results of the quantitative projections of fiscal space for FHCI and UHC within a discussion of the health and macroeconomic policy in Sierra Leone.

The business as usual scenario projects health financing from the current policies and plans. In the maximised fiscal space scenario GoSL adopts policies to prioritise FHCI and UHC to meet resource needs over the next ten years. Four policy options are discussed; increased government allocations to health (including mandatory health insurance), implementation of an earmarked levy for health, efficiency savings, and borrowing.

The theoretical description of this methodology can be found in Annex A. This section provides some key underpinning method and assumptions specifically for Sierra Leone. Starting with the macroeconomic context, then the general health and finally to discuss how FHCI expenditures and costs are estimated. Whilst UHC is a longer term policy goal it is discussed first here as the data and therefore the methodology is much simpler than that of FHCI. Moreover, readers may find it easier to digest the FHCI financing within a wider health background.

B.1 Assumptions for the Macro Economy

The macroeconomic environment is modelled within a financial framework with data populated by official Ministry of Finance and Economic Development (MOFED)-agreed estimates of the International Monetary Fund (IMF)[119]. The framework details are set out in Annex A. IMF projections end in 2018. To contextualise this medium term and to continue projections up to 2025 a number of Sierra Leonean policy documents have been referenced. These ensure that the macroeconomic framework is aligned with GoSL goals, two key development plans are the Agenda for Prosperity which covers 2013 to 2018 and the longer term Vision 2035.

According to the longer term vision Sierra Leone aims to be a middle income country with a tax revenue to GDP ratio of 35%, and inflation constrained to 5% by 2035[120]. Projections suggest that over the next ten years - up to 2025 – Sierra Leone will grow from a per capita income of 660 USD to reach middle income status by around 2022. Underpinning this is a real growth rate of 3.2% per annum. National public expenditures and revenues are set to grow towards the average proportions for a middle income country. Over the next ten years' budget ratios will need to accommodate for middle income economic needs. Other key variables such as Exchange Rates remain stable over the longer term. Table B.1 provides the averages for indicators for low and middle income countries, and the projection targets used for Sierra Leone within this model.

Table B.1: Macro Economic Targets by Income Status

	Sierra Leone 2015	Low Income	Middle Income	Sierra Leone 2025 Projection
Tax:GDP	9%	17%	24%	20%
Current Expenditure:GDP	13%	14%	21%	18%
Donor Funds:GDP	5%	8.0%	0.3%	1%

Source: Low and middle income targets from World Bank Development Indicators

[119] IMF World Economic Outlook (WEO) database and the most recent IMF Article IV publications for Sierra Leone.
[120] Cited in GoSL (2013) Agenda for Prosperity, page xii.

It is important to note that although Sierra Leone may achieve middle income status it is still unlikely to achieve middle income economic indicators. For example, with such a low tax to GDP ratio at present – 9.2% in 2015, and this has not risen over 11% in the past five years – it is unlikely that Sierra Leone could reach the middle income average of 24% in the next ten years. Therefore, a more cautious target of 20% is used, and even so this will require much effort on domestic tax reforms to achieve a doubling of the ratio in ten years.

Little is known about on-budget external financing commitments after 2018 due to international donors' practices of offering commitments of only one to three years in advance. From 2019 to 2025 the average from 2009 to 2018 is used and this projects a decline in external financing in real terms just above the middle income average.

This provides us with a 'business as usual' scenario and allows us to compare the resultant key macro indicators from imposing health financing scenarios.

It must be noted that within this baseline a key assumption is that external financing will decline in real terms over the projection period. This assumption affects the macroeconomic projections – as well as the sector-specific health funding scenarios – through budget and programme support as part of government revenue. Part A.2 of Annex A gives an overview of the reasoning for declining development assistance in the near future. In sum, sources suggest that in the medium term external funding will remain stable at best and decline in low income countries[121].

B.2 Incorporating Health and Finding a Gap

This section provides an outline of the methodology which is directly relevant to UHC and in principle the same for the financing gap analysis for FHCI. However, there are some differences which will be outlined in the two subsequent sections for UHC and FHCI, respectively.

The model includes details on funding which is available for health from all sources categorised into four: Government, External, Household Out of Pocket (OOP), and Private Spending. These four categories make up the Total Health Expenditure (THE) for Sierra Leone. Background data (2008 – 2013) is taken from Sierra Leone's National Health Accounts (NHA) data (limitations of this data are discussed in the next section). The projections are then calculated using the following assumptions:

Government Health Spending: Grows with nominal growth elasticity of 1.1 as per international econometric findings (see Annex A Part A.3, and McIntyre and Meheus, 2014). This assumes that Government funding to the health sector will rise at a slightly faster rate than nominal growth; i.e. as a country grows richer it invests proportionally more into its health services.

International Funding: Medium term commitments (2015 – 2018) were sourced from the MOFED and Ministry of Health and Sanitation (MOHS) budgets. Over the longer term the trend in donor funding for health is stable in nominal terms.

Household Out Of Pocket Expenditure: Grows with nominal growth elasticity of 0.86 as per international econometric findings (see Annex A Part A.3, and McIntyre and Meheus, 2014). This assumes that the need for OOP expenditures by households will grow at a slightly slower rate than nominal growth; i.e. as a country grows richer the health burden falls less onto citizens for ad-hoc expenditures.

[121] See: http://www.oecd.org/newsroom/aid-to-developing-countries-rebounds-in-2013-to-reach-an-all-time-high.htm, and http://devpolicy.org/reports/PB7-Global-aid-in-2013.pdf.

Private Company Expenditures: Grows in line with inflation to reflect rising cost of health services. This sector makes up a small proportion of health care financing sources.

From these assumptions the model presumes a 'business as usual' scenario. The two key points are:

- that there are no great policy changes from central government in increasing health sector funding, and;
- in most cases donor money is not flowing as rapidly into health as it has done over the past decade.

A final point on this data in relation to the fiscal space analysis for UHC. For this analysis we take only the government budgetary expenditures on health (inclusive of mandatory health insurance) and the external funding. We exclude OOP and the private sector as we are focusing on the basic package of health services under UHC and want to assess the situation without including the non-planned or catastrophic expenditures associated with OOP. The sum of GoSL and donor funding is titled 'Official Health Expenditure' within this report.

Resource Needs: These describe the estimated level of funding required to provide the basic level of health services a country needs for UHC. Health needs are set to reflect the maximum of three spending options as per current international health financing norms (see McIntyre and Meheus, 2014). This would raise the country to the global average for health spending and are as follows:

- 86 USD per capita;
- 5% of GDP; or
- Current Government and Donor Health Spending.

86 USD per capita is used in Sierra Leone. This 86 USD refers to the year 2012, and so the costs is inflated using a global average inflation rate projected by the IMF. The results in a health need of 95 USD in 2015 rising to 130 USD in 2025.

Resource Gap: From the macro, health, and resource needs data a financing gap is found; i.e. how much money is available in a country for health compared to how much money is needed to provide basic needs for health. As mentioned above, this resource gap refers to only the 'official health expenditures'; i.e. those made by GoSL and Official Development Assistant (ODA), OOP and private sector are excluded. From a UHC perspective, its main contribution lies in its characteristic feature to convert OOP direct payments at the point of health service into predictable periodic premiums. This health financing modality protects health care users from catastrophic financial risk when using health services, which is an essential dimension of UHC. And so, we are measuring the gap between official health expenditures and resources needed to meet a basic package of health services. There are two scenarios built around this:

Scenario 1: Business as Usual – Compares health needs against available expenditures from GoSL and ODA.

⇨ ***Scenario 1*** presents the situation assuming needs continue as expected, there are no policy changes in spending, and donors do begin to reduce their income flows and so there will be a shortfall of financing for health.

Scenario 2: Innovative Action – As per scenario 1 but with a stronger budget commitment to health; i.e. Government Expenditures on health rising to targeted values by 2025. Additionally, there is the inclusion of new alternative source of funding – earmarked taxes – and efficiency

savings. Borrowing is discussed if all other domestic funding sources are exhausted and a financing gap remains.

⇨ ***Scenario 2*** present a possible future where governments are taking a pro-active stance to meet the health needs of citizens to offset the decline from donor funding.

Earmarked Taxes: There are various types of health levies considered within the model as methods to fill the resource gap. These can be considered under two headings:

- Taxation – Sin taxes such as a levy on alcohol or tobacco; Tax on Remittances; Mobile Phone Levy; and Airline Levy
- Mainstreaming – Public and Private Sector

Estimations of potential levels of income from the health levies are calculated with country-specific data where possible. Or. by using data found from other countries who have implemented these earmarked taxes. Their results have been summarised into an average return in terms of a percentage of GDP. These are summed and added to the available budget financing and a new financing gap is calculated. It must be noted that the sum of all these levies are included in the scenario and it is unlikely that all would be implemented, rather one or two may be chosen by a government. This would lessen the financial impact.

Efficiency Gains and Savings: Countries have differing levels of efficiency. If they can become more efficient the country will need less money to provide the same levels of service. The potential for each country to improve its efficiency rates have been calculated by international Data Envelopment Analysis (DEA), (Wu Zeng). These are then accounted for in the resource needs; i.e. reducing the amount of Resource Needs. A new resource gap is then calculated which includes both innovative funding and efficiency savings. This final financing gap presupposed the implementation of a number of policies from the national Governments regarding implementing a more efficient health system.

B.3 UHC Assumptions in Sierra Leone

This section outlines the specific data and assumptions used to calculate the UHC available resources and needs for Sierra Leone. It must be noted that the NHA for Sierra Leone have some limitations which have been spelt out within the FHCI Evaluation Report (see Boxes 3 and 4). In sum this leaves data available for 2013 as a baseline but there are doubts over the high level of OOP spending – both in terms of the income level of the general population and relative to other countries OOP levels. The 2013 NHA estimate annual OOP expenditures at 58 USD per capita and accounting for 60% of all health spending. This would account for just less than 10% of an average person's annual income. Repercussions of this will be discussed in later.

From this NHA 2013 baseline the scenario assumptions are set out below with Sierra Leone-specific data:

Government: Expenditures on health will be in two forms from 2017; budget allocation and Mandatory Health Insurance (MHI):

- **Budget Allocation:** In the 'business as usual' scenario from 2014 to 2017 using the total budget as per health priority line in Agenda for Prosperity budgeting. Removed foreign capital contributions and salary contributions from DFID and Global Fund but still includes some on-budget support. From 2018 to 2025 the budget allocation is assumed to grow in line with nominal GDP at an elasticity of 1.1 (as discussed above). In the second scenario

the growth path will follow that outlined by the Director of Budget MOFED, this will focus on achieving the Abuja Declaration target of 15% by 2025[122].

- **MHI:** The National Social Security and Insurance Trust (NASSIT) committee state that pilot plans for the Sierra Leone Social Health Insurance (SLeSHI) will start in last quarter of 2016, will last 6-12 months and involve the security sector before rolling out to all formal sector workers[123]. Projections of expenditures from this source will begin in 2017 and grow to account for the formal sector in the 'business as usual' scenario with premiums of 3% for employee and employer. For the second scenario the FHCI beneficiaries are considered as a subset of UHC and they begin to be integrated into SLeSHI in addition to the formal sector, as per NASSIT long term plans. This would basically mean a movement from FHCI as a budgeting allocation to a subsidy of SLeSHI membership premiums.

External Financing: In 2014 and 2015 using the disbursement trends of the two largest donors to health: DFID and Global Fund. In 2016 and 2017 using trends in the foreign capital contributions in the Agenda for Prosperity health priority budget. This projects a rise in external financing in near term. Thereafter - from 2018 to 2025 – external financing is stable in nominal terms as per the 2013 to 2015 average as it is assumed that the large capital expenditures over 2016 and 2017 are not sustainable over longer term.

OOP: From 2014 assumes OOP grows in line with nominal growth with an elasticity of 0.86; i.e. OOP rising at a slower rate.

Private Sector: From 2014 assumes that the private sector health sector grows in line with inflation.

B.4 FHCI Assumptions

This section outlines the specific data and assumptions used to calculate the FHCI available resources and needs for Sierra Leone. It must be noted that this report includes on children under five, lactating mothers and pregnant women as the beneficiaries of the FHCI. Other vulnerable groups have been identified in policy documents as intended beneficiaries, but to date nothing has been officially budgeted to include these groups. Examples are Ebola survivors, disabled people, and even free malaria treatment[124].

The FHCI Evaluation Report discusses much of the data issues surrounding the financing of the FHCI. Indeed, the report goes so far as to create a new methodology to estimate the costs of the FHCI as no other data was available (see the health financing sections in that report). Rather than re-invent the wheel this fiscal space analysis will build on this incremental-health-care-expenditures methodology where it assumes the rise in health expenditures after 2010 - the launch of FHCI – were associated with the FHCI costs. Some amendments will be made to suit our longer term view which will be discussed.

This long term FHCI analysis requires an estimation of the number of FHCI beneficiaries and how this is expected to change over the next ten years. The initial GoSL aim was to reach up to 230,000 pregnant women, 230,000 lactating women and 1 million children under five every year, saving lives and improving health outcomes.[125] This was in 2009. The United Nations Population Division (UNPOP) data shows the number of children under five to be in line with this goal, and to

[122] Stakeholder interview January 2016.
[123] Stakeholder interview January 2016.
[124] Agenda for Prosperity mentioned disabled people, see page 66, and the Health Sector Recovery Plan mentioned Ebola survivors and malaria.
[125] Government of Sierra Leone. Free Health Care Services for Pregnant and Lactating Women and Young Children in Sierra Leone. Sierra Leone Conference, November 2009.

reach the women's numbers 40% of those at childbearing age (15 to 40 years old) account for the 460,000[126]. In 2009 this equates to 25% of the population, and this falls to 22% in 2025 when reaching 1.8 million people. This suggests the FHCI will account for a substantial proportion of health expenditures over the medium and longer term.

The FHCI expenditure is spilt between government and external financing only. Household OOP and private sector spending are assumed to not be payable given the free status of the health services (additionally there is no data on these spending areas). This gives an 'Official FHCI Expenditure' for FHCI similar to that for UHC and so allows them to be comparable. This again removes the CHE associated with OOP and reflects a GoSL goal of reducing OOP expenditures.

FHCI has six categories of expenditures and the methodology for projecting each is set out below. 2010 to 2013 estimates are based on data from MoHS data, NHA and donor commitments. Where possible the methodology is aligned with the FHCI Evaluation Reports' calculations for FHCI costs (incremental). Divergences in baseline estimates are highlighted and the projections are as follows:

Salaries: The baseline is created from MOHS data. No specific budget line is available for the salary supplement made for FHCI and so the incremental salary is used. From 2014 onwards the GoSL share of FHCI salaries grow in line with nominal GDP at an elasticity of 1.1 (see Annex A Part A.2 for full details). This is in line with the Government Health Expenditure (GHE) methodology. Salary supplements are paid by donors, currently financed by DFID and The Global Fund, commitments are used for the medium term and funding is assumed to remain nominally stable over the longer term.

Drugs and Medical Consumables for FHCI: Discussions with MoHS and evidence from central medical stories suggests FHCI drugs are primarily donor financed at present. The Government does have to pay for cost recovery drugs but no information was found on the value of this in recent years other than that it is inconsistent and was only included in the 2016 budget for FHCI[127]. The MOHS budget line 'procurement of cost recovery drugs and other supplies' was used as a proxy. Of all drugs purchased FHCI drugs account for around 70% of the total cost. Therefore, the cost recovery proportion for FHCI would be high, an estimation of 35% of this budget line is assumed to represent 'drugs and medical consumables' paid for by GoSL. This assumes a small proportion is paid by GoSL but that in this business as usual scenario government policy will remain the same and donors will pay for the majority of the FHC drugs. To estimate the externally financed share the budget line for FHCI Drugs from 2014 to 2018 was used. Thereafter remains stable in nominal terms.

Performance Based Financing (PBF): Is currently paid by the World Bank with no funds from GoSL. In the business as usual scenario it is assumed that the government will not pay for this over the time period; i.e. keeping policy and budget allocations stable. The World Bank have committed to disbursements up to 2017. Thereafter within the business as usual scenario it is assumed this will continue but on a stable nominal basis.

Reproductive, Maternal and Child Health (RMCH): The entire RMCH budget from 2015 to 2017 will be included in the FCHI costs as this division / budget area overlaps with all FHCIs. After 2018 this budget line will be projected forwards by using the elasticity of 1.1 vis-à-vis nominal growth, in line with GHE expenditure. This assumes that the change in emphasis to RMCH has occurred post-2010 introduction of FHCI and no large budgeting allocation will be required to focus further on RMCH / FHCI. For external financing the assumptions suggest there is a strong bias towards

[126] http://www.un.org/en/development/desa/population/
[127] Interview with health budget expert in MOFED, January 2016.

RMCH; just over half of external finance to health goes to RMCH from 2010 to 2013[128]. This focus is expected to continue over the time period. Baseline found from NHA data on RMCH interventions, and from 2014 this grows in line with health external financing, after 2017 this remains stable in nominal terms.

Key Activities for Service Delivery: For the GoSL this refers to supervision costs, or monitoring and evaluation of the FHCI129. MoHS budget data is used as a baseline, from 2014 this grows as per the 1.1. elasticity rate. External financing for this area is estimated from MOHS budget data, from 2014 this grows as per the health external financing, after 2017 it is stable in nominal terms.

Capital Expenditures: From the public investment programme covering 2015 to 2017 capital expenditures for health average 271 billion Leones, or 72% of the total health budget130. Of this 97.5 billion are seen as directly relevant to FHCI, namely; Reproductive and Child Health Project (IDA) (PFB proportion removed), Save the Mothers Project (IDB), and Primary Health Care Support. Note that other large projects such as the Refurbishment of Government Hospitals and Strengthening of Three Tertiary Hospitals will also benefit FHCI beneficiaries but proportional allocations are not known. The government share of this capital expenditure accounts for 7% of GHE, and accounts for 1% of donor health funding. For the GoSL projections, from 2015 to 2017 uses this Public Investment Programme data on projects for FHCI. Then from 2018 use the elasticity of 1.1 vis-à-vis nominal growth to be in line with GHE. Donor Capital Expenditure also uses the 2015 to 2017 Public Investment Programme data on projects for FHCI. From 2018 this remains nominally stable.

- ⇨ ***For Government FHCI spending*** this longer term projection methodology assumes that the change in emphasis to RMCH has occurred post-2010 introduction of FHCI and no large budgeting allocation will be required to focus further on RMCH / FHCI.
- ⇨ ***For Donor FHCI spending*** this longer term projection methodology assumes that donors will remain within the FHC sector but are not scaling up. External financing remains stable in nominal terms, i.e. declining in real terms.

FHCI Resource Needs: These describe the estimated level of funding required to provide the basic level of health services for the FHCI beneficiaries in Sierra Leone. The HSRP contained a costing exercise for the FHCI. This was carried out with the World Health Organisations' (WHO) 'OneHealth Tool'. Three scenarios were provided and this report uses the Moderate Scenario as is recommended in the HSRP131. If as we have assumed the FHCI beneficiaries account for 25%-22% of the population over the time period, the resource needs per beneficiary are 70 USD in 2015 and rise to 115 in 2025. Total needs are around 20% of UHC needs.

[128] NHA and authors' calculations.
[129] Meeting with health budget expert MOFED, January 2016.
[130] MOFED budget data. The 72% proportion is based on the total budget for health = MOHS, NPPU and Local Councils.
[131] See pages 62-66 of the Health Sector Recovery Plan, MoHS (2015).