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National Health Insurance in sub-Saharan Africa: Insights for Uganda

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ABBREVIATIONS

CBHI	community-based health insurance
CFI	Certificate of Financial Implications
CSS	Civil Servants Scheme (Kenya)
HISP	Health Insurance Subsidy Program
MOFPED	Ministry of Finance, Planning, and Economic Development
MOH	Ministry of Health
NHI	national health insurance
NHIF	National Hospital Insurance Fund (Kenya)
NHIS	National Health Insurance Scheme (Ghana and Uganda)
OOP	out-of-pocket
PBF	performance-based financing
SSA	sub-Saharan Africa
UHC	Universal Health Coverage
VAT	value added tax
WHO	World Health Organization

EXECUTIVE SUMMARY

Uganda plans to establish a National Health Insurance Scheme (NHIS) as part of its strategy to make progress towards Universal Health Coverage (UHC). With the legislation now awaiting Presidential assent, there is an urgent need to develop the functional design for the planned NHIS. This study draws on the experience of sub-Saharan African (SSA) countries that have achieved the highest levels of population coverage—namely Rwanda, Ghana, Gabon, Tanzania, Ethiopia, and Kenya—to highlight lessons on design issues related to enrollment, benefits package design, financing for the NHIS, and implementation sequencing. A comparative table of the six SSA focus countries is annexed to this report and provides details of their context, history, evolution, and current design with references for further information.

Enrollment

Uganda's current NHIS design includes mandatory enrollment, starting with the formally employed and extending gradually to the informally employed and the poor. The 2019 NHIS Bill requires that any resident of Uganda over 18 years be a contributor to the NHIS to access services covered by its benefits package (Uganda Ministry of Health 2019). The NHIS Certificate of Financial Implications (CFI), issued by the Ministry of Financing, Planning, and Economic Development (MOFPED) in 2017, projected that all formal sector employees would be enrolled within the first year, with informal workers at a rate of 20%, and the poor at a rate of 10% per year. According to these projections, the NHIS would achieve 100% coverage in 10 years.

Other countries in SSA have taken a similar approach by starting with formal sector workers but have been challenged to achieve significant coverage of the informally employed. Given the administrative ease of payroll deductions and the relative wealth of the formally employed, many countries used this as a starting point (Yazbeck et al. 2020). However, this approach can create significant challenges to extend national health insurance (NHI) coverage to less fortunate population segments. The generous benefit package expectations of formal sector workers will likely be an unaffordable option for nationwide expansion. As a minority of the population, they are likely to resist directly subsidizing the enrollment of the large majority who cannot afford the same levels of contributions (Norheim 2015). This dynamic has already emerged in consultations around the NHIS, with representatives of the formally employed in Uganda raising their concerns over how to cover the informally employed and the poor.

Countries in SSA have implemented different strategies to expand informal sector membership, with varying degrees of success. Some have made enrollment mandatory, as proposed in Uganda. However, without a robust approach to monitor and enforce the mandate, enrollment becomes voluntary in practice, as is the case in Ghana (Wang and Rosemberg 2018). Voluntary enrollment for insurance carries the inherent risk of adverse selection by those most in need, reducing risk sharing, limiting enrollment, and creating significant financial challenges. Community-based health insurance (CBHI) schemes are another approach with a long history of donor support to extend health insurance coverage in SSA. As with other voluntary schemes, they also suffer from adverse selection and small risk pools, rendering them financially and operationally unstable while achieving minimal coverage. Countries with successful CBHI approaches, most notably Rwanda, utilize strong central management and financial support, linking them to national level risk pools to become part of a national system (Chemouni 2018).

In pursuit of equitable population coverage, many countries have used poverty targeting to direct subsidies to poor and vulnerable households. As in the current Ugandan NHIS design, many countries have chosen to

exempt the poor and specific demographic groups from making premium contributions as a condition for membership. In Ghana, for example, the NHIS exempts those under 18 or over 70 years of age, pregnant women, and the poor (Kipo-Sunyehzi et al. 2019). Key to the success of these strategies is the ability to accurately identify who should benefit. The young, the old, or pregnant women can be identified through physical characteristics. However, identifying the poor can be much more difficult, expensive, and less accurate. A proposed alternative approach would be to provide free coverage for a set of services that are most needed by the poor, as well as services purchased from providers that serve the country's most impoverished areas, avoiding the difficulties of poverty targeting altogether (Kidd and Wylde 2011).

Benefits Package Design

The Ugandan NHIS Bill includes a very comprehensive benefits package. As detailed in Schedule 1 of the current legislation, the benefits package includes a full range of preventative and curative services from both public and private providers. All contributors and their dependents are entitled to the benefits in the package, except for those not delivered by a medical provider or covered by other mechanisms, such as workers' compensation or third-party motor vehicle insurance. The Bill also anticipates that forthcoming regulations will prescribe maximum payment amounts by the NHIS for supported treatments, above which will be the patient's responsibility.

Establishing a comprehensive benefits package at the outset of the NHIS will likely create challenges for the future. A comprehensive benefits package provided to and financed by formal sector workers will likely be an unaffordable option for the government or informal sector enrollees to finance as coverage is extended, which could exacerbate inequities in the health system. A key example of this is the Civil Servants Scheme (CSS) of the National Hospital Insurance Fund (NHIF) of Kenya. The CSS offers a more comprehensive and generous benefits package than other NHIF health insurance schemes in Kenya, and the higher rates of provider payment have resulted in providers giving preferential treatment to civil servants and better access to medicines. Researchers have noted that this has been done at the cost of expanding coverage to more impoverished populations, where the burden of disease is likely higher (Barasa et al. 2018).

An alternative approach is to provide a narrow benefits package of cost-effective, high-impact services most needed by the poor and vulnerable. Among many countries in SSA, Burkina Faso, Burundi, Ghana, and Kenya have created universal benefit schemes that ensure free access to maternal and newborn care for any mother in the country, with reimbursement mechanisms to compensate providers. This approach is in line with a recommendation from the 2013 Lancet Commission study that suggested a narrow benefits package of cost-effective services, including those most needed by the poor and vulnerable, would be an effective first step in establishing an NHI scheme (Jamison et al. 2013). During the first years of implementation, as systems are being built, this approach creates a much simpler insurance scheme to finance and administer because it avoids the unnecessary complexities of contributory enrollment and claims management from a broad range of services. This approach is also in line with guidance from the World Health Organization (WHO), which calls for the development of fair and equitable benefits packages to achieve UHC by focusing on cost-effectiveness, relevance to poor populations, and financial protection (World Health Organization 2014). Over time, a regular and explicit benefits package review process can assess the relevant evidence and available budget to determine what can be reasonably included in the benefits package. A strong example of this approach can be found in Gabon (Mibendzou Mouelet, El-Idrissi, and Robyn 2018).

Financing

The current NHIS Bill anticipates that the scheme will be primarily financed through member contributions. As described in the Bill, the formally employed will contribute through monthly payroll deductions matched by their employers and the informally employed through annual flat-rate contributions. The financial projections provided by the NHIS CFI indicate that the scheme would enjoy revenues greater than its anticipated expenditures during its first five years of operations, based solely on contributions from enrolled members.

Experts have found that financing of NHI schemes through labor taxes leads to inequities that favor the wealthy, and premium collection from the informally employed generates little revenue. In NHI schemes funded through payroll taxes on formal sector employees, there is often resistance to cross-subsidize coverage for those less fortunate. If payroll tax rates are insufficient to support benefits and raising contribution rates proves politically difficult, governments may end up deciding to subsidize their coverage out of general tax revenues. However, using scarce government resources to support a privileged few, rather than providing financial protection to the poor and vulnerable, is contrary to the goals of UHC (Yazbeck et al. 2020). Furthermore, revenue generated from contributions by the informally employed are, in many cases, relatively low, especially after the administrative costs of collection (McIntyre et al. 2018). Based on these findings, experts have reached a broad consensus that countries striving for UHC should avoid contributory enrollment. Instead, governments financing primarily through general tax revenues is the most likely path for SSA countries to achieve UHC (Kutzin 2013; Pettigrew and Mathauer 2016; McIntyre et al. 2018; Yazbeck et al. 2020).

Sequencing

The 2019 Uganda NHIS Bill presents a vision that will require a complex set of new roles and systems to become operational and achieve its goals. Building the technical, administrative, financial, and governance structures for an institution that, when successful, will experience exponential growth requires a flexible approach. Furthermore, the supply-side of Uganda's health system will require significant investment to improve the capacity of providers who can meet likely higher demand for high-quality health services purchased by the NHIS. In light of these challenges, a sequenced approach to building the components of an NHIS system is a logical way to proceed. The 2014 Lancet Commission on Investing in Health advocated for starting NHI systems with a narrow set of benefits that focus on the needs of the poor and vulnerable, which are also available to the whole population (World Health Organization 2014). Additionally, a pragmatic, sequenced stepwise approach will allow a new NHI institution to develop, test, and refine their systems as required, thereby creating increased levels of capacity and making strides towards realizing the comprehensive vision outlined in the 2019 NHIS Bill (Josephson 2017).

Conclusion

Uganda has previous and ongoing experiences in health system reform that offer good starting points for the NHIS. The recently concluded reproductive health voucher projects and the ongoing nationwide performance-based financing (PBF) mechanism have demonstrated at scale what can work in Uganda. The voucher projects highlighted many of the systems that the NHIS will require as a demand-side purchaser, and the PBF mechanism has put in place successful supply-side incentives, quality improvement measures, and direct facility financing that provide much-needed local autonomy to address critical issues at the district and facility levels. From these experiences, it’s clear that Uganda has already started building its NHIS for a sustainable future.

I. INTRODUCTION

With the passage of the 2019 NHIS Bill by Parliament, Uganda moved forward with pivotal health systems reform that can support the pursuit of UHC. The NHIS will be a health financing mechanism "*to facilitate the provision of efficient, equitable, accessible, affordable, and quality health care to all residents of Uganda;*" and "*…ensure quality of health care services, equity, appropriate utilization of services, and patient satisfaction in the provision of health care.*" (Uganda Ministry of Health 2019). These objectives align with the Uganda Vision 2040 strategy to establish a universal health insurance system (Uganda National Planning Authority 2013) and Uganda's Sustainable Development Goal commitments to achieving UHC. The 2015/16–2019/20 Health Sector Development Plan and the Health Financing Strategy 2015/16–2024/25, both of which are guiding documents for the health sector developed by the Ministry of Health (MOH), include a focus on achieving UHC to ensure that all people receive essential and good quality health care without suffering financial hardship (Uganda Ministry of Health 2015; 2016).

Uganda is now faced with questions about the design of NHIS that can allow it to achieve its stated objectives. As the NHIS Bill moves towards passage into law, developing regulations and implementation plans can begin in earnest. A new NHI system is a complex, long-term undertaking that many countries have embraced as a strategy to achieve UHC. Based on the accepted WHO definition of UHC, progress depends on three dimensions: extending coverage to more people, expanding coverage of priority services, and reducing out-of-pocket (OOP) expenditures using pooled funds (World Health Organization 2010). As noted by the WHO Consultative Group on Equity and Universal Health Coverage in 2014:

> *"… countries are faced with a critical choice: Which services to expand first, whom to include first, and how to shift from out-of-pocket payment toward prepayment? A commitment to fairness—and the overlapping concern for equity—and a commitment to respecting individuals' rights to health care must guide countries in making these decisions."* (World Health Organization 2014)

This study assembles lessons learned from the NHI experiences in SSA that have achieved the highest levels of population coverage. A wide range of NHI experiences in SSA includes government-run mandatory and voluntary schemes and encouraging private voluntary insurance. However, out of the 46 countries in SSA, only five countries have established public NHI systems that have achieved greater than 20% coverage of their population. These included (in order of achieved coverage rates): Rwanda (~85%), Ghana (~58%), Gabon (~54%), Tanzania (~34%), Ethiopia (~29%), and Kenya (~16%) (Barasa et al. 2021; Rwanda Social Security Board 2020; n.d.; Aboubacar et al. 2020; Ethiopian Health Insurance Agency 2020; Tanzania National Health Insurance Fund n.d.; Wang and Rosemberg 2018; Tanzania Ministry of Health Community Development Gender Elderly and Children 2019).

Building from the critical choices identified by the WHO above, this study is focused on the three key issues of enrollment, benefits package design, and financing. With a view to how SSA countries have built their NHI systems over time and recognizing that NHI systems are complex with many components beyond these three key issues, this report draws examples from country-level experiences in SSA to identify key lessons that are specific to Uganda's current efforts under the Uganda 2019 NHIS Bill. The first three sections below address these key issues, starting with a summary of relevant sections of the Uganda 2019 NHIS Bill, followed by

pertinent examples from successful SSA NHI schemes, and finally discussing the common challenges and corresponding strategies. The report also discusses the value of sequencing the development of functional elements of an NHI system that can then become an integral part of an existing health system and provides suggested starting points for consideration. **Annex 1** provides a detailed comparative table with summary descriptions of key NHI components from the six most successful NHI experiences in SSA for further reference. This report is based on an extensive literature review, the current NHIS legislation, national policies, scheme reports, and data from online sources.

II. ENROLLMENT: EXTENDING COVERAGE TO MORE PEOPLE

Many countries initiate NHI schemes by first enrolling the formally employed. However, this can lead to inequities and make the extension of coverage to informally employed portions of the population difficult. Enrolling the informally employed, either through mandatory or voluntary approaches, can be achieved but requires general government financing—beyond the collection of premiums—and a concerted effort to ensure broad coverage, particularly of the vulnerable and poor.

The 2019 NHIS Bill prescribes mandatory enrollment that would primarily start with public and private workers in formal employment. As stated in Part V of Uganda's NHIS Bill, *"…any person who has attained the age of 18 years and who is ordinarily resident in Uganda shall be liable as a contributor to the Fund…"* (Uganda Ministry of Health 2019). Upon payment, contributors (i.e., members) are to be issued with identification cards required when accessing NHIS supported benefits (Uganda Ministry of Health, n.d.). However, the Bill does not include specific details about how members will be enrolled into the scheme, a point noted in the recent review of the Bill by the Uganda Parliamentary Committee on Health (Parliament of Uganda 2021). Related to this issue, the NHIS Certificate of Financial Implications (CFI), issued by the MOFPED in 2017, used a set of assumptions to project anticipated enrollment in the scheme during the first five years of operations. The MOFPED projected that 100% of formal sector civil servants, private sector employees, and registered pensioners would be enrolled within the first year of NHIS operations. Furthermore, it is estimated that 20% of the informally employed would enroll per year and that indigents would be enrolled at a rate of 10% annually. These projections would see Uganda achieve 100% coverage after ten years.

Uganda's plans for establishing the NHIS are in keeping with approaches other countries in SSA have taken to initiate NHI schemes. Many countries have started their NHI schemes by first enrolling the formally employed. However, this starting point can create challenges of inequity. Gabon, Kenya, Burundi, Tanzania, and Nigeria all initiated their first NHI schemes as mechanisms to provide health insurance to the formally employed (Mibendzou Mouelet, El-Idrissi, and Robyn 2018; Barasa et al. 2018; Sibomana 2015; Yazbeck et al. 2020). This approach is an obvious starting point, given the administrative ease of premium collections through formal employment systems and the ability of the formally employed to afford contributions. In many countries, this has been seen as a first step towards expanding enrollment to broader sections of the population, including in Uganda. However, starting with formal sector workers, who are likely already advantaged, could be considered inequitable and at odds with UHC thinking (Norheim 2015). In many low- and middle-income countries in SSA, the approach of starting with the formally employed can make it difficult to expand to other less fortunate segments of the population, in part because formal sector workers resist directly cross-subsidizing the informally employed (Kutzin 2013; Pettigrew and Mathauer 2016; McIntyre et al.

2018). Indeed, this dynamic has already influenced discussions between the Uganda MOH and private sector stakeholders during the process of advancing the NHIS Bill through Parliament.

Table 1: *Percentage of the population in selected SSA countries with NHI (public) coverage, informally or unemployed, and living in poverty*

	Year started	% of the population covered by public health insurance*	% of the population informally employed or unemployed†	% of the population in poverty (national poverty line) ‡
Rwanda	1999	85% (2020)	68%	38.2%
Ghana	2003	58% (2014)	72%	23.4%
Gabon	2007	54% (2016)	51%	33.4%
Tanzania	1996	34% (2018)	52%	26.4%
Ethiopia	2011	29% (2020)	83%	23.5%
Kenya	1966	16% (2014)	87%	36.1%
Uganda	2021	n/a	74%	21.4%

Sources: * (Barasa et al. 2021; Rwanda Social Security Board 2020; n.d.; Ethiopian Health Insurance Agency 2020; Tanzania National Health Insurance Fund n.d.; Wang and Rosemberg 2018; Tanzania Ministry of Health Community Development Gender Elderly and Children 2019; International Labor Organization n.d.; World Bank Group n.d.; Mibendzou Mouelet, El-Idrissi, and Robyn 2018)

A key challenge across SSA has been attaining coverage for informally employed segments of their populations. As shown in ***Table 1***, large proportions of the population are informally employed, unemployed, or living in poverty across SSA countries. Each of these groups presents challenges to identify, enroll, and solicit contributions. In pursuit of UHC, countries with NHI systems have employed several strategies to broaden enrollment and expand coverage for these informally employed. These include mandating membership, identifying the vulnerable and poor, subsidizing enrollment, and encouraging CBHI schemes. These strategies to improve the fairness and efficiency of coverage for the informally employed have been demonstrated in NHI schemes in SSA, described in the paragraphs below.

A fundamental problem with mandatory enrollment approaches for the informally employed is that they are difficult to enforce and can become a *de facto* approach in practice (Kutzin, Yip, and Cashin 2016)**.** For example, the NHI system in Ghana includes a mandate that all citizens enroll for health insurance. However, a lack of penalties for non-enrollment, skeptical perceptions of the NHI benefits package, and adverse selection have led to high rates of annual non-re-enrollment (Republic of Ghana 2012; Wang, Otoo, and Dsane-Selby 2017). One report detailed that of all the active NHI members in January 2014, only 42% were still enrolled a year later (Wang, Otoo, and Dsane-Selby 2017). Kipo-Sunyehzi in 2019 observed that long lines at enrollment centers, particularly in urban areas, and annual registration fees were barriers to re-enrollment (Kipo-Sunyehzi

et al. 2019). A proposed solution is to establish a one-time enrollment payment, thus eliminating the need for annual re-enrollments (Christmals and Aidam 2020).

Making membership mandatory for informally employed populations in an NHI scheme is possible but requires comprehensive supporting strategies. Rwanda provides a positive example of how a mandatory membership approach for the informally employed can be successful when extensive efforts to encourage and enforce broad membership are employed (Chemouni 2018). Since 2006, enrollment in the country has been driven by an official policy that mandates membership and intense pressure on local authorities to achieve coverage targets. Additionally, a poverty targeting system (known as *Ubedehe*) identifies poor households and qualifies them for a sliding scale of government subsidies to support their enrollment premium contributions (Chemouni 2018). The Rwandan approach has resulted in the highest levels of NHI coverage in SSA overall and among poorer segments of the population.

Voluntary CBHI has become a popular strategy to enroll informally employed populations in SSA. The CBHI approach has shown evidence of reducing OOP expenditures, borrowing, depletion of savings, and sales of assets for health care (McIntyre et al. 2018). However, most CBHI schemes achieve low coverage levels because maintaining significant levels of voluntary membership is problematic. This is because many rural communities served by CBHI schemes have a limited understanding of health insurance as a concept, see the limited benefits packages as unattractive, lack trust in the schemes, and are not sufficiently involved in their management (McIntyre et al. 2018). These challenges result in high levels of turnover that require extensive recruitment efforts with limited resources. Additionally, market failures—such as adverse selection and moral hazard within the small risk pools created by CBHI schemes—can make them financially unstable and dependent on external funding (McIntyre et al. 2018). As a result, CBHI enrollment in most countries has remained very low and the poorest, who cannot afford the premiums, remain excluded (Mathauer, Mathivet, and Kutzin 2017).

CBHI can be a stepping stone towards an NHI system if there is strong guidance and substantial financial support provided by the government. Ghana and Rwanda built their health financing reforms around existing CBHI schemes with two critical innovations. First, they channeled government tax revenues into expanding the schemes' funding base to give them financial stability. Second, they standardized and linked the schemes into a national system to increase pooling and reduce fragmentation (Mathauer, Mathivet, and Kutzin 2017). In Ghana, the CBHI approach was phased out in 2012 when the government consolidated the NHI system into a single, centralized national-level approach. In Rwanda, the CBHI schemes were first standardized after the pilot phase, and then, with support from the Global Fund, 2.9 million of Rwanda's poor were provided subsidies for their premium contributions. These reforms dramatically boosted coverage, improved equity, and made it possible for the MOH to make membership mandatory in 2006 (Chemouni 2018; Mathauer, Mathivet, and Kutzin 2017). Additionally, in Rwanda, the CBHI schemes were gradually professionalized through government appointments to the district schemes and gave the Rwandan Social Security Board responsibility for the nationwide management of CBHI schemes, alongside NHI and pension schemes, for the civil service to increase pooling and centralized financial management (Chemouni 2018).

Another strategy SSA countries have used are exemptions for specific demographic groups and mechanisms that identify the poor and vulnerable to target subsidies for their enrollment in an NHI scheme. As in the case with plans for the NHIS in Uganda, many countries have identified specific demographic groups exempted

from premium contributions. An example of this strategy is the NHI system in Ghana, which provides exemptions to those under 18 years of age, the elderly over 70 years of age, pregnant women, and the poor. Some of these demographic groups are easily identifiable at a service point to qualify them for an exemption. However, other groups, such as the poor and vulnerable, can be challenging to identify, which is one of the key reasons that they are often left out by NHI schemes (McIntyre et al. 2018).

Many countries have developed poverty targeting mechanisms that use proxy-means tests, which collect expenditure or consumption indicators, to determine individual or household poverty status (Kidd and Wylde 2011)**.** This has been the case with the Gabonese Indigent Fund, a component of Gabon's NHI system that provides free health insurance to poor households, students, and the elderly. During the enrollment process, applicants are surveyed to determine if they meet the minimum criteria before being provided with membership (Mibendzou Mouelet, El-Idrissi, and Robyn 2018). Likewise, the NHI system in Ghana enrolls poor households without requiring a premium contribution. The poor are identified by applying a proxy-means test carried out either by NHI officials or through Livelihood Empowerment Against Poverty, the government's conditional cash transfer program (Sackey 2019). Rwanda's system includes a community-based poverty targeting mechanism known as Ubedehe, which established a National Income Categorization Database in 2010 that categorizes every Rwandan household based on income and assets. Households identified as poor are provided either complete or partial exemptions from premium contributions or copayments at health facilities (Christmals and Aidam 2020; Nyinawankunsi et al. 2015; Chemouni 2018).

Poverty targeting mechanisms may not be the most efficient way to reach vulnerable and poor populations effectively. Proxy-means testing, as a method of poverty assessment, is challenging to implement and can have very high costs. The systems have also been found to have low levels of reliability and significant issues with gaming, coming to be viewed in many communities as lotteries (Kidd, Gelders, and Baily-Athias 2017). This dynamic can be seen in the experiences of targeting mechanisms in SSA. For example, Mouelet et al. noted that there are concerns in Gabon that the poverty targeting process is vague and inaccurate. Kipo-Sunyehzi et al. and others have found that in Ghana, despite exemptions for the poor from paying premiums, many identified poor households are still required to pay annual registration fees. Some perceive these fees as premiums, creating confusion and barriers to enrollment (Kipo-Sunyehzi et al. 2019; Mibendzou Mouelet, El-Idrissi, and Robyn 2018).

Alternative approaches can direct subsidies towards the poor and vulnerable without the complex and expensive targeting systems that identify poverty at the household level. One strategy is to design the NHI benefits package to include a prioritized set of services, especially those most needed by the vulnerable and poor, and engage providers that serve geographic areas with higher concentrations of less fortunate populations. These deliberate design choices can cause the wealthy (i.e., non-poor) to self-select out of the package's available benefits. Therefore, this approach can achieve the same aims of a poverty targeting system without putting into place the expensive and often inaccurate process of individually assessing the poverty levels of each household (Kidd and Wylde 2011).

III. BENEFITS PACKAGE DESIGN: WHAT SERVICES TO COVER

Fairness and equity are fundamental values in the design of an NHI benefits package. Starting with a comprehensive set of benefits—which may appeal to the formally employed—can lead to difficulties extending coverage to the informally employed and the poor, thereby creating inequities. Alternative strategies include starting with narrow sets of universal benefits that can be expanded over time as capacity allows, based on updates to the benefits package through evidence-based reviews.

The Uganda 2019 NHIS Bill includes a benefits package that covers a comprehensive list of services. As described in Schedule 1 of the Bill, the NHIS will cover a wide range of services that have been grouped into several categories: preventive; outpatient; reproductive, maternal, newborn, child, and adolescent health (RMNCAH); dental; eye care; mental; radiological and imaging; inpatient; surgical; mortuary; and laboratory. Each service also includes indications of which health system level will deliver specific services from Health Center IIIs and above. Section 26 of the Bill clarifies that all contributors and their dependents will be entitled to all benefits in the package except for treatments and medicines not specified by a medical provider, occupational hazard incidents covered by workers' compensation, and accidents covered by third-party motor vehicle insurance. There is also a reference in Section 26 to forthcoming regulations, which will set prescribed maximum payment amounts by NHIS for treatments. Any NHIS member's cost of care above these specified maximums will be the member's responsibility (Uganda Ministry of Health 2019).

Fairness and equity are UHC values that should guide the development of an NHI benefits package. As noted by the WHO in 2014, the values of fairness and equity are fundamental motivators behind the global goal of UHC, and by employing these values, countries can maximize the benefits that an NHI system will have for their populations (World Health Organization 2014). Who gets access to cost-effective services is also critically important. If benefits go to portions of the population who already enjoy relatively good health, this will be less beneficial for the overall population than if those services went to those with greater need, such as the poor or the vulnerable (World Health Organization 2014). Across the globe, there is a bias in government health spending that favors the rich, leaving the poor at higher risk of spending money that they don't have on health costs, pushing them further into poverty (Wagstaff et al. 2014). It follows that countries planning to set up an NHI should focus their scarce public resources to subsidize benefits for the poor from the very beginning (Barasa et al. 2018).

Establishing a comprehensive benefits package for formally employed populations can create challenges in extending coverage to the whole population. Formal sector workers are generally from more wealthy segments of SSA populations and are likely to demand a more comprehensive set of benefits to accept deductions from their wages. They are also likely to have greater political power to negotiate for additional benefits. The resulting package can create inequities in the health system for less fortunate sections of the population. A key example of this comes from Kenya's NHIF, which introduced a Civil Servants Scheme (CSS) for government employees and their dependents in 2012. The strong political clout of civil servants has led to a CSS benefits package that has become increasingly generous, providing not only outpatient and inpatient care but also overseas care as well as emergency ambulance and airlift services. The CSS benefits package is far more generous than what is provided by the other schemes managed by Kenya's NHIF. These include schemes for formally employed private sector workers and informally employed populations, a subsidized scheme for the poor, and a universal benefits scheme for maternity care. The NHIF, across its schemes, contracts the same providers in many areas. However, the CSS scheme pays the same providers higher rates

for the same care when compared with other NHIF schemes. These higher rates of provider payments have created advantages for CSS members over other categories of NHIF members when they seek care. These advantages include reduced waiting times, preferential treatment by providers, and better access to medicines. It has been observed that government funding of the expensive CSS benefits package for a group of people who are typically more advantaged has been done at the same cost of expanding NHIF coverage to more impoverished populations, where the disease burden is likely higher (Barasa et al. 2018).

Universal benefit schemes provide an alternative starting point for an NHI benefits package that can lead to greater fairness and equity. Based on an extensive review of the evidence, the 2013 Lancet Commission on Investing in Health proposed a strategy for initiating NHI systems to achieve UHC that considers the challenge of inequity. They suggested starting with a universally available but narrow set of cost-effective benefits most needed by the poor and vulnerable that address infectious diseases, reproductive, maternal, newborn, child, and essential non-communicable disease services (Jamison et al. 2013). There are several related examples of this approach in SSA. These include the *Linda Mama* scheme in Kenya, the *Gratuité* scheme in Burkina Faso, and the Free Maternity scheme in Ghana. These schemes have made access to maternal and newborn health care free of charge to any resident or citizen of the country and put in place financing mechanisms to reimburse facilities for the free services they provide. Also known as universal benefit schemes, they have some very distinct advantages. They are much less complex than full NHI systems to establish and manage because they purchase a very narrow band of services for an easily identifiable population segment. They can also be designed to avoid the need for pre-enrollment processes, the financial management of premium collections, membership eligibility databases, and poverty targeting systems. As a starting point, a universal benefit program could allow a newly established NHI scheme to build systems incrementally, refine purchasing arrangements with providers, strengthen health and financial management systems, demonstrate success to advocate for increased funding at the national level, and over time, expand the benefits package to include new priorities and high-impact services.

Establishing and maintaining an NHI benefits package is best done through regular iterative, evidence-based, systematic processes that consider available financial resources. The WHO Consultative Group on Equity and UHC recommended a three-part approach to developing fair and equitable benefits packages. First, they suggest prioritizing services based on cost-effectiveness, relevance to poor populations, and financial protection. Second, they recommend starting with coverage of high-priority services for everyone. And third, they advise efforts to actively cover disadvantaged segments of the population, such as the poor and those in rural areas (World Health Organization 2014). In line with these recommendations, many countries with NHI systems have explicit processes to determine which health services are included in their benefits packages. While methods vary, it is common for many to utilize criteria geared towards health systems goals that include improving population health, access to services, and the fair distribution of health services. An example of this in SSA comes from Gabon, where the benefits package is maintained through a standardized, evidence-based process. The benefits package is based on an epidemiological profile of the country developed by the MOH, including the leading causes of consultations, hospitalizations, and deaths by age groups. The evidence is reviewed annually by the MOH and Ministry of Labor, who oversee the NHI system, with explicit consideration for population health needs and budget implications, resulting in a benefits package established by government decree.

IV. FINANCING: SHIFTING TO PRE-PAID POOLED FUNDING

Initiating an NHI financed by payroll taxes from the formally employed is a common approach that has limitations and can lead to inequities. Premium collections from the informally employed—mandatory or voluntary—are unlikely to generate significant revenues, and subsidies financed by general government tax revenues will be required to achieve high levels of coverage. There is a broad consensus among experts that countries pursuing UHC should avoid contributory financing mechanisms.

The Ugandan 2019 NHIS Bill outlines a scheme primarily financed through member contributions. The NHIS Bill passed by Parliament envisions that all residents of Uganda over the age of 18 will be required to make contributions to the NHIS fund through two basic approaches. First, the formally employed will contribute through monthly payroll deductions matched by employer contributions. Second, the informally employed will be required to make annual flat-rate contributions. The Bill does not specify the rates for either of these contribution methods (Uganda Ministry of Health 2019). In the 2017 NHIS Certificate of Financial Implications (CFI), issued by MOFPED, it was assumed that the formally employed would contribute 4% of their monthly salaries, with matching employer contributions of 1% in both the private and government employment settings, and the informally employed will make annual contributions of 100,000 UGX each (approximately US$27) while the poor are enrolled free of charge. The CFI projections indicate that the NHIS scheme would enjoy revenues greater than anticipated expenditures during its first five years of operations, based solely on contributions from enrolled members. There are currently no provisions for the financing of the NHIS from general government budget sources identified in the draft Bill (Uganda Ministry of Health 2019).

Initiating an NHI with financing from payroll taxes is a common approach, but one with inherent limitations. Many NHI schemes worldwide have started by enrolling formal sector workers using earmarked payroll taxes as a revenue generation mechanism. A few countries in SSA—Kenya, Tanzania, and Nigeria—have started their schemes by limiting membership to formal sector workers (Yazbeck et al. 2020). This approach is an obvious starting point given the transparency of salaries for the formally employed, their relative wealth and ability to afford contributions, and the ease of deducting money from payrolls that is systematic and enforceable. As shown in ***Table 1*** above, many countries in SSA, including Uganda, have a minority of their citizens working in formal salaried employment. As a minority of the population, they are a narrow tax base to create cross-subsidies that finance membership of the larger informally employed populations. An earmarked labor tax to fund an NHI scheme, that by design cross-subsidizes members who contribute less or don't contribute anything, has real potential to generate political resistance among those in the formal sector who pay the most. It is also likely that the additional NHI contributions will be perceived as an additional tax on top of their existing income taxes. Indeed, in the initial discussions around the Ugandan NHIS, this has already become a key point of the debate.

Labor tax financing of NHI leads to greater inequity that favors the rich. As noted by Yazbeck et al. in 2020, resistance by the formally employed and their employers to explicitly cross-subsidize those less fortunate can lead to more vigorous efforts to avoid the deductions to their paychecks, as well as raise political difficulties in the future if deduction rates need to be increased. If payroll deductions are not enough to support the benefits consumed by the formally employed and their families, and raising contribution is politically difficult, the government could end up subsidizing the coverage of the formally employed with general tax revenues (Yazbeck et al. 2020). Furthermore, NHI schemes tend to pay attractive reimbursement rates to contracted facilities. If the initial coverage of an NHI scheme is focused on wealthier, formally employed workers, this

could lead to an inequitable distribution of health workers drawn to better-paid facilities that exclusively serve NHI-covered, formally employed populations. This draw of health workers to better-funded facilities would create a drain from facilities that service more impoverished, uninsured populations, further disadvantaging the poor's access to high-quality care (Yazbeck et al. 2020). These outcomes would be contrary to the goals of UHC, with scarce government resources being used to subsidize health care for the wealthy and undermining support for the extension of services and financial protection available to the poor and vulnerable. Thus, many health financing experts have warned against the use of an earmarked labor tax to finance NHI in SSA, given that this leads to schemes that favor the rich, an outcome that is at odds with the pursuit of UHC (Kutzin 2013; Pettigrew and Mathauer 2016; McIntyre et al. 2018; Yazbeck et al. 2020).

Mandatory premium collections from the informal sector are unlikely to create significant revenues. As noted by McIntyre et al. in their review of NHI schemes in SSA in 2018, the revenue generated by mandatory health insurance schemes from informally employed populations is generally low (McIntyre et al. 2018). A key challenge is the expense of collecting premiums. The administrative costs of fielding insurance agents and establishing local and regional insurance offices, combined with high membership turn-over rates, make maintaining premium revenues a challenging process likely to require subsidies from general government tax revenues. While set premium rates may appear to contribute to a national health insurance scheme's revenue significantly, the net revenue after the cost of premium collection is likely to be much lower (McIntyre et al. 2018). Another key finding from mandatory NHI schemes for the informally employed in SSA is that they generally result in low levels of coverage, further limiting the amount of financing collected via premiums. McIntyre et al. conclude that contributory health insurance schemes for informally employed segments of the population are unlikely to be the most efficient or equitable means of financing health services in SSA (McIntyre et al. 2018).

Voluntary CBHI schemes are also unlikely to generate significant revenue, but with government subsidies, the schemes can be linked into a national risk pool. The WHO has found that CBHI schemes, with very little subsidies for the poor and with small vulnerable risk pools, can only play a limited role in supporting a country's efforts to move towards UHC (World Health Organization 2010; 2014). One solution to this problem, which has been successfully used in some SSA countries such as Rwanda and Ghana, and is the vision for countries that include Ethiopia, Tanzania, and Burkina Faso, to name a few, has been to link smaller CBHI schemes into a larger whole of a national health insurance scheme. In Rwanda, the CBHI schemes were rolled out nationwide with high-level political support and funding from the national budget. Based on early results, it was clear that subsidies would be required for the poor to be enrolled. Financing from the Global Fund allowed the government in Rwanda to put these subsidies in place, enrolling nearly three million poor and moving the system from largely individual district level CBHI risk pools into a common national risk pool that now functions as an NHI scheme with strong district-level management (Mathauer, Mathivet, and Kutzin 2017). In effect, this meant that these schemes were no longer entirely "community-based" but rather local iterations of the more extensive, centrally managed NHI system.

Countries with successful NHI systems provide significant levels of financing to their schemes using general government tax revenues. All of the NHI schemes in SSA that have achieved greater than 20% coverage of the population have significant general tax revenues that support their NHI systems. In Rwanda, where the majority of the population is covered by government-supported health insurance, schemes at the community

level receive only 66% of its required funds from premium collections. The balance is paid through subsidies provided from general government revenues (14%), the Global Fund (10%), and other sources (10%). In Ghana, which has achieved the second-highest level of coverage in SSA, the NHI systems are primarily funded through a government-administered earmarked value-added tax (VAT) which generates 72% of the funding for the scheme. An additional 20% comes from salary deductions of the formally employed channeled through the Social Security National Insurance Trust, 4% from investment income, and only 3% from collecting premiums of informally employed members. The funding of the Ghanaian scheme through VAT revenue ensures that the financing of the scheme is stable and keeps pace with economic growth (Okoroh et al. 2018). Likewise, in Gabon, the government put an earmarked 10% tax on mobile phone company revenues plus a 1.5% tax on external financial transfers to pay for the subsidies required by the Gabonese Indigents Fund. In 2017, when the tax on mobile phone companies proved insufficient, they replaced it with a 1% levy on the manufacturers, importers, wholesalers, and retailers of domestically consumed goods and services (Mibendzou Mouelet, El-Idrissi, and Robyn 2018; Aboubacar et al. 2020; Humphreys 2013). A key result from experience in Gabon has been that OOP expenditures have gone down directly in relation to the increases in government tax expenditures on health, dropping from 52% of current health expenditures in 2007 to 23% in 2018.

There is a broad consensus among experts that countries striving towards UHC using insurance mechanisms should minimize or avoid contributory enrollment strategies. Schemes which determine membership based on contributions or labor taxes are not the most efficient or equitable means of financing health services (McIntyre et al. 2018). A conclusion reached by many is that a health insurance scheme financed primarily through general tax revenues is the most likely path for countries in SSA to achieve UHC. As Yazbeck et al. concluded in 2020, “The empirical evidence to date is that what has moved low- and low-middle-income countries for UHC has been general revenue, not labor taxes” (Yazbeck et al. 2020).

V. SEQUENCING

Initiating an NHI is a complex undertaking that takes years to accomplish. Efforts to fully establish administrative and governance structures before starting operations can cause delays. Beyond establishing a new NHI institution, the capacity of the health system must also be strengthened. A sequenced approach from a focused starting point can allow the necessary systems and system capacities to be developed over time towards the overall vision of coverage for all.

Establishing a comprehensive NHI requires building a large and complex set of systems. The 2019 NHIS Bill presents a vision for Uganda that will require establishing a complex set of roles, responsibilities, and systems to provide comprehensive insurance coverage. Beyond the focus areas in this report, many systems, approaches, and structures will need to be conceived, tested, and grown through iterative cycles that build on lessons yet to be learned. Furthermore, beyond the challenges of building the new NHIS purchasing infrastructure, the supply-side of the health system will need to be bolstered to ensure that providers of all types have the resources and technical guidance they need to be successful as the NHIS becomes operational, generates demand, and providers see potentially significant increases in utilization. This will be important and consequential health reform work that will benefit from the challenges and successes of other countries that have established NHI systems in SSA.

Building the full set of technical systems, administrative structures, and governance arrangements before starting the operations of an NHI can create delays. Surveying the experiences of NHI in SSA, Erik Josephson in 2017 observed that a common challenge in many SSA countries has been taking the first steps to initiate a scheme (Josephson 2017). The paths taken by countries to realize their NHI systems have varied, with some opting to establish their systems in a very short period of time (e.g., Ghana), start with specific segments of the population (e.g., Kenya), or build up through levels of the health system (e.g., Rwanda). In each of these experiences, the process of building administrative and governance structures to manage NHI schemes before starting operations has been a challenge. Establishing the administrative structures and systems for the core insurance functions takes considerable effort, investment, and time. Likewise, designing and putting in place a governance structure for a new government institution, especially one that is likely to see exponential growth, is difficult to envision from the start successfully. Another challenge will be steering the MOH and MOFPED's necessary evolution in health purchasing arrangements as they align to the new health financing landscape.

Furthermore, as a new financing mechanism, the NHIS will need to be harmonized with Uganda's health system's existing health financing arrangements. Adding to the existing supply-side health financing arrangements of the health system, the NHIS will create new payment mechanisms for providers that need to be in balance with current resources to ensure that they have the supplies to deliver high-quality care that meets increased levels of demand. Designing the NHIS to fit within the existing system offers opportunities to improve the overall efficiency and equity of health financing in Uganda. Uganda's experiences with results-based financing and voucher schemes have demonstrated the many advantages that increased facility autonomy and contract-based purchase of services can offer. These include establishing a purchaser-provider split, performance contracting of providers, payment based on outputs, strategies to improve quality through purchasing, and systems for claims management.

A sequenced approach to building the components of an NHI system is a logical way to proceed. The challenges of building a large and complex NHI government institution are many. The approach suggested by the 2014 Lancet Commission on Investing in Health described above, which advocates for starting NHI systems with a narrow set of benefits—particularly those most needed by the poor and vulnerable—and made available to the whole population is an excellent place to start. Similarly, Josephson in 2017 advocated for creating NHI systems in SSA with a similar approach, which calls for using a sequenced, stepwise approach to building the necessary NHI components (Josephson 2017). These pragmatic approaches would allow a new NHI to begin operations more quickly without the intensive efforts to building administrative and governance structures upfront that can cause delays. The stepwise approach also allows a new NHI institution the time and focus to develop, test, and refine their systems as they are required in sequence, creating increasing levels of capacity to expand the benefits provided to citizens towards a comprehensive insurance scheme. Following the passage of the 2019 NHIS bill by Parliament and expected assent by the President, Uganda has the opportunity to put together a sequenced plan that can start small and build systems that support expansions of the NHIS as capacity is available.

VI. CONCLUSION

Uganda's previous and ongoing experiences with both demand- and supply-side results-based financing offer good starting points. The successful implementation of both supply- and demand-side results-based financing initiatives in Uganda provides a host of systems and lessons learned to inform the new NHIS. The large-scale reproductive voucher programs, in many ways, functioned like limited NHI systems by identifying poor women to access a benefits package of focused maternal and newborn health services that were delivered by contracted public, PNFP, and private providers who were reimbursed based on submitted claims. The voucher programs demonstrated many of the systems that the future NHIS will require (Jordanwood et al. 2021). Likewise, the current performance-based financing (PBF) system supported by the Uganda Reproductive, Maternal, and Child Health Improvement Project (URMCHIP), which directly finances public and PNFP facilities based on their outputs, has put in place extensive monitoring processes within the existing health sector governance structures and created a set of performance incentives that have driven improvements in both quality and service utilization. From these experiences, it is apparent that Uganda has already started building its NHIS for the future.

ANNEX 1: COUNTRY COMPARISON TABLE OF NATIONAL HEALTH INSURANCE COMPONENTS

1. COUNTRY OVERVIEW OF THE HEALTH FINANCING LANDSCAPE

Rwanda	Ghana	Gabon	Kenya	Tanzania	Ethiopia
• Rwanda is an East African country of 12.6 million, of which nearly 40% of the population is under 15 years of age, and 83% live in rural areas.[1] • The country has a per capita GDP of US$ 820, of which an estimated 7.5% is spent on health.[1] • Current health expenditures are an estimated $58.31 per capita, of which government spending is estimated to be 31.5%, donor spending 17.9%, and private spending 37.8%.[1] • OOP spending is estimated to be 10.5% of CHE, which is equal to US$ 8.80 per capita annually.[1] • The public sector health system is decentralized across 30 districts with governance provided by the MOH and forms the largest network with 88% of facilities that include community health workers, health posts, health centers, and district, provincial, national referral, or teaching hospitals. Private for-profit providers include hospitals, polyclinics, clinics, dispensaries, and pharmacies.[2] • Revenue for health is generated from government taxes, non-tax revenues, contributions to NHI schemes, donor contributions, and private expenditures.[2] • The major pools of funding for health include government funding and contributions to CBHI and formal sector insurance schemes (RAMA). Pooled funding within private health insurance schemes is minimal.[2]	• Ghana is a West African country of 30.4 million, of which 37% of the population is under 15 years of age, and 57% live in urban areas.[1] • The country has a per capita GDP of US$ 2,202, of which an estimated 3.5% is spent on health.[1] • Current health expenditures are an estimated $77.91 per capita, of which government spending is estimated to be 38.9%, donor spending 9.7%, and private spending 48.7%.[1] • OOP spending is estimated to be 37.7% of CHE, which is equal to US$ 29.37 per capita annually.[1] • The country has a multi-level health system stewarded by the MOH, which includes public (60%), faith-based NGOs (7%), and private facilities (33%).[2,3] • The public health system includes compounds, health centers, clinics, maternity homes, and seven types of hospitals.[2] • Revenue for health is primarily from the government, development partners, and private expenditures. Government revenues are allocated to the MOH and health facilities through budget transfers.[2] • The National Health Insurance Scheme (NHIS) is funded by the National Health Insurance Agency (NHIA).[2]	• Gabon is a West African country of nearly 2.2 million, in which 37% of the population is under 15 years of age, and nearly 90% of the population is urban.[1] • The country has a per capita GDP of US$ 7,767, of which an estimated 2.7% is spent on health.[1] • Current health expenditures are an estimated $218.37 per capita, of which government spending is estimated to be 58.6%, donor spending 2.7%, and private spending 40.2%.[1] • OOP spending is estimated to be 23.1% of CHE, which is equal to US$ 50.44 per capita annually.[1] • The health system in Gabon consists of three sectors that include a large public sector managed by the Ministry of Health and Public Hygiene (MOHPH), a para-public sector which includes the National Health Insurance Program (NHIP), and a private sector that includes for-profit, non-profit, and traditional providers. The Ministry of Defense also operates a network of providers.[2] • Overall, the public health system includes 82% of facilities in the country, followed by 15% private for-profit. [2] • The public health system has three tiers that include national level referral and teaching hospitals and then ten regional	• Kenya is an East African country of nearly 52.6 million, in which 39% of the population is under 15 years of age, and 72.5% live in rural areas.[1] • The country has a per capita GDP of US$ 1,816, of which an estimated 5.2% is spent on health.[1] • Current health expenditures are an estimated $88.39 per capita, of which government spending is estimated to be 42.1%, donor spending 13.7%, and private spending 42.4%.[1] • OOP spending is estimated to be 23.6% of CHE, which is equal to US$ 20.86 per capita annually.[1] • The health system of Kenya is comprised of public (50%), private for-profit (47%), and non-governmental organization (3%) facilities.[2] • The public system is organized into four levels that include 1) community services, 2) primary health services, 3) county referral services, and 4) national referral services.[3] • The planning, management, and budgeting of levels 1-3 in the health have been decentralized to 47 semiautonomous counties, while the central government retained policy and regulatory functions in addition to managing level 4.[3] • Presently, the country has 49 public purchasers: MOH, which	• Tanzania is an East African country of 58 million, of which nearly 44% of the population is under 15 years of age, and 65.5% live in rural areas.[1] • The country has a per capita GDP of US$ 1,122, of which an estimated 3.6% is spent on health.[1] • Current health expenditures are an estimated $36.82 per capita, of which government spending is estimated to be 42.9%, donor spending 11.9%, and private spending 24.8%.[1] • OOP spending is estimated to be 24.0% of CHE, which is equal to US$ 8.84 per capita annually.[1] • The public health system of Tanzania makes up 74% of facilities nationwide. 13% are faith-based, and 14% are private for-profit facilities.[2] • Public health services are organized into a tiered structure that mirrors the government's administrative hierarchy of the country with dispensaries at the village level, health centers at ward level, and hospitals at district, region, zone, and national levels.[2] • The management of the health sector is heavily influenced by devolution. However, financing remains highly centralized.[2] • The health financing landscape is highly fragmented with providers receiving in-kind support via district councils, capitation grants (direct facility	• Ethiopia is an East Africa country with more than 112 million, of which 40% of the population is under 15 years of age, and 79% live in rural areas.[1] • The country has a per capita GDP of US$ 856, of which an estimated 3.3% is spent on health.[1] • Current health expenditures are an estimated $24.23 per capita, of which government spending is estimated to be 23.4%, donor spending 8.7%, and private spending 40.7%.[1] • OOP spending is estimated to be 35.5% of CHE, which is equal to US$ 8.60 per capita annually.[1] • Since the mid-1970s, the country has pursued community-based PHC strategies towards delivering and improving health based on principles of self-reliance and community participation.[2] • This included significant investments in health extension workers to provide health services in rural areas starting in the early 2000s.[10] • The health system is structured into three tiers of primary, secondary, and tertiary levels of care. At the primary level, the public health system consists of approximately 15,000 health posts, staffed by two women each that focus on MNCH care. Health Centers supervise five

• There are multiple public purchasers within the Rwandan health system that include the Ministry of Financing and Economic Planning, the MOH, the Rwanda Social Security Board (oversees both the CBHI and RAMA schemes), the Medical Insurance Scheme for the University of Rwanda, and the Military Medical Insurance scheme. Additionally, the decentralized districts are purchasers and have autonomy over local revenue.[2] • The Rwandan health system also includes a national PBF financing mechanism introduced in 2004, institutionalized in 2008.[2]	• The NHIS in Ghana is primarily financed through a value-added tax (VAT), making it the only country in the world to do so. This strategy of VAT financing for NHIS ensures stability in revenue and that it keeps pace with economic growth.[2]	health directorates that manage regional hospitals and local primary health care facilities.[2] • Funding for the health sector comes from three main sources: the government budget, health insurance contributions, and out-of-pocket expenditures.[2] • The establishment of the three NHIP schemes has led to significant increases in government spending on health which went from 38% of CHE in 2008 to 59% in 2018, and a dramatic decrease in OOP spending dropped to 23%.[3,4] • Gabon still only spends 2.7% of its GDP on health (lower than the SSA average of 5.5%). Still, by being a middle-income country, its average spending of US$218 per capita on health is significantly higher than the majority of countries in SSA.[1]	purchases tertiary services; 47 county governments which purchase primary and secondary services from a network of government-owned facilities; and the National Hospital Insurance Fund (NHIF).[4] • The 2010 constitution mandates the sharing of at least 15% of national government revenue equitably among counties. On average, counties allocate 27% of their total budgets to health care.[3] • Besides these public purchasers, there are both commercial and community-based voluntary health insurance schemes in Kenya, but they cover approximately 2% of the population.[4]	financing) from a basket of donor funds, results-based financing (RBF) in some areas, insurance reimbursements, and user fees with each source having its own budgeting, expenditure, and reporting mechanisms.[3] • In addition to government purchasing through supply-side budgeting and donor support through the Health Basket Fund, the country has five additional government health insurance purchasing mechanisms that include the National Health Insurance Fund (NHIF), Community Health Funds (CHF, Tiba kwa Kadi (TIKA), improved CHF (iCHF), and the Social Health Insurance Benefit (SHIB).[2,3]	health posts each and provide more advanced OPD care as well as IPD for emergency and delivery services. These are followed by primary, general, and tertiary hospitals.[2,9] • Government tax revenues spent on health are spent at the national, regional, zonal, or woreda (district) levels.[3] • Starting in 2008, Ethiopia began pursuing health insurance strategies with a community-based insurance model heavily influenced by the experience of Rwanda.

2. HISTORICAL BACKGROUND/EVOLUTION OF NHI SCHEMES

Rwanda	Ghana	Gabon	Kenya	Tanzania	Ethiopia
• Rwanda began piloting CBHI schemes (called *Mutuelles de Sante*) in 1999 in a cooperative effort with USAID that was designed to encourage direct community financial management and promote responsible use and ownership.[3] • The initial pilots were successful, largely due to the involvement of local government officials, leading to a decision to expand CBHI across the country. • The expansion was supported by high-level political interest and funding from the national	• Before Ghana started the National Health Insurance Scheme (Ghana/NHIS), the health system was a cash and carry system with out-of-pocket expenditures reaching close to 50% of total health expenditures[6], and the MOH in 2003 estimated that 80% of the population could not afford the user fees.[7] • Starting in the 1990s, the country began experimenting with CBHI schemes which became the basis on which the government initiated the country's NHIS in 2003 with a vision to "ensure equitable	• In 2005 Gabon committed to achieving UHC and in 2007, the country adopted health financing policy reforms that led to the establishment of the National Fund for Health Insurance and Social Guarantee (CNAMGS) in 2008.[5] • CNAMGS was established as a third-party social health insurance scheme under the Ministry of Labor, Employment, and Social Welfare.[6] • The first scheme established by CNAMGS was the Gabonese Indigents Scheme (GEF), which provides poor households earning less than USD $250 per	• Kenya started its national health insurance system in 1966 with the establishment of the National Hospital Insurance Fund (NHIF), which was designed to provide mandatory health insurance to formal sector workers.[5] • In 1972, the scheme was expanded to include informal sector households on a voluntary basis.[4,5,6] • In 1998, the NHIF Act reconstituted the NHIF as a parastatal rather than a department of the MOH and made NHIF insurance mandatory for all Kenyans.[4,7]	• Before the liberalization of the economy in the 1980s, the Tanzanian public health system was financed through the national budget with some faith-based and NGO facilities funded by donors. Due to insufficient funding, user fees were introduced in 1993 to generate additional revenue but were regressive towards the poor despite exemptions and waivers.[6] • In response, the country first piloted a CBHI approach known as Community Health Funds (CHFs) in 1996 with the support of donors to 1) increase revenue	• The 1993 Health Policy and the 1998 Health Financing Strategy identified health insurance as a mechanism to generate revenue and increase low utilization. [2,4] • In 2000 USAID/Abt Associates supported the initiation of the Health Financing Secretariat within the MOH, which has been integral to health financing policy ever since. Additionally, the first CBHI feasibility studies were commissioned, initially finding the country not ready. [2] • Following the 2005 election, Dr. Tedros Adhanom Ghebreyesus (current WHO Director-General) was appointed Minister of

budget and reached nationwide coverage by 2004.[3]
- The expansion was implemented by different development partners that led to a wide variety in designs of benefit packages, premium levels, copayment rates, etc.[3]
- Recognizing these problems as well as the lack of hospital-level care, the government, beginning in 2004, began an effort to standardize the designs of the CBHI schemes and began to subsidize enrollment for the poor and vulnerable.[3]
- In 2006, the Global Fund approved a US$ 34 million health systems project that provided subsidies for nearly 3 million Rwandans, greatly boosting coverage and equity and allowing the government to make membership mandatory. This was soon enshrined in the 2007 CBHI law.[3]
- District-level authorities were put under pressure and given performance contracts to maintain high levels of enrollment.[3]
- Gradually, the district-level CBHI schemes were professionalized through national-level appointments to their boards.[3]
- In 2015, nationwide management of the CBHI schemes was given to the Rwandan Social Security Board (RSSB) alongside their management of health insurance and pensions schemes for the civil service, thereby increasing levels of national pooling and centralized financial management.[3]
- The RSSB established a medical insurance scheme for members in 2001, and a Military Medical Insurance scheme was established in 2005.[11]

universal access for all residents of Ghana."[5]
- The initial NHIS design was a coordinated system of district government, private CBHI, and private for-profit commercial insurance schemes covering a minimum health care package.[7]
- The scheme required that every Ghanaian enroll in their choice of a health insurance scheme within five years and used a system of incentives, rather than penalties, to encourage enrollment.[4]
- The scheme had an explicit aim to provide access to health care for the vulnerable in society, which included exemptions for the poor, those under 18 and over 70 years of age.
- In 2008, a presidential executive order expanded the exemptions for all pregnant women through the Free Maternal Services scheme.[4] As a result, by 2014, more than two-thirds of those covered were exempt non-premium paying members.[2]
- In 2012, the government put in place reforms that integrated all of the district-managed CBHI schemes into a unified and centralized national health insurance scheme to create a bigger risk pool and resolve governance challenges.[5]

month, students, and the elderly with free CNAMGS membership.[6]
- It was estimated that 33% of the Gabonese population is poor, and by 2012, 79% of the poor had been enrolled in the GEF.[5,7]
- CNAMGS expanded in 2010, establishing a State and Civil Servants Fund and in 2011 with a Private Sector Fund, both of which were transitioned from previous social security systems.[6,7]
- A key issue in this transition were concerns from private sector employees that their contributions would be used to subsidize the poor.[6]
- These concerns were addressed by segmenting the financing and risk pooling.[6]
- To date, a key gap in Gabon's national health insurance system is that the informal sector remains uncovered.[3]
- While the Civil Servants Fund and the Private Sector Fund are financed through payroll deductions, the GEF was initially financed through earmarked taxes on mobile phone company revenues and foreign remittances. In 2017, the tax on mobile phone companies was abolished, and a new compulsory levy on select goods and services, called the Special Solidarity Contribution, was put in place.[5]

- In practice, however, the scheme has remained voluntary for those in the informal sectors, given the difficulties of enrolling and collecting premiums.[5]
- In 2012, the NHIF introduced the Civil Servants Scheme (CSS) for government employees and their dependents, which effectively redirected previous medical allocates to be NHIF premiums.
- In 2013, the government removed all user fees at public PHC facilities and created the Free Maternity Scheme (FMS) that allowed many women to deliver free of charge and reimbursed facilities.[4]
- In 2014, the government launched the Health Insurance Subsidy for the Poor (HISP) program that initially targeted beneficiaries of the government's cash transfer program. In 2016, HISP was scaled up to cover 170,000 households.[5]
- In 2017, the FMS was transferred from the MOH to the NHIF and renamed Linda Mama.[4]
- In 2018, the Kenyan Ministry of Education and the NHIF began to offer comprehensive medical insurance known as EduAfya for public secondary school students.[8]

for health, 2) improve quality of health care services, and 3) improve management of services and empower communities to take an active role. Providing financial protection to the most vulnerable was an implicit goal. CHFs were subsequently rolled out to 155 out of 187 districts.[2]
- In 1999, the National Health Insurance Fund (NHIF) was established that began providing compulsory health insurance to civil services in 2001 and later opened up for voluntary enrollment from other groups.[5]
- An urban equivalent of CHFs known as *Tiba Kwa Kadi* (TIKA), which covers the informally employed in urban and peri-urban areas, was initiated in 2010.[6]
- In 2006, the National Social Security Fund began providing member private sector employees with access to a health benefits package known as the Social Health Insurance Benefit (SHIB).[6]
- In 2009, the NHIF signed an MOU for the MOH to assume management of the CHF system with the goal of improving efficiency and increasing coverage.[2]
- In 2014, an improved CHF (iCHF) was launched in select areas through a partnership between the NHIF and PharmAccess that had a strong focus on improving quality of care and offered a better benefits package plus a revised provider payment mechanism. It is anticipated that iCHF will eventually replace both CHF and TIKA.[4,10]
- There is a goal in Tanzania's health insurance reform agenda to establish a Single National health Insurer (SNHI) through national-level legislation.[7,8]

Health and subsequently championed the ideas of health insurance in response to concerns of rising OOPs and asked MOH and Abt to again consider the feasibility of health insurance.[2]
- Following a study tour in 2007, the experience of Rwanda was strongly influential, with one MOH official claiming, "Rwanda has already done the pilot for us! We can scale it up straight away in Ethiopia."[2]
- This led to a two-part strategy of CBHI for the ~83% rural informally employed population and a social health insurance (SHI) scheme for the formally employed. After Dr. Tedros advocated for the strategy, this gained political support from the Prime Minister.[2]
- CBHI pilots start in 13 districts (woredas) in 2011, and a scale-up began in 2014.[2,4,5]
- CBHI was initially designed to be mandatory. However, after a change in the MOH Director of Planning, it was made voluntary. However, due to strong commitment and promotion by the government, the scheme in practice remains somewhere between voluntary and compulsory.
- Implementation of SHI for the formally employed has been repeatedly delayed due to resistance from formal employees and employers, limited access to only public facilities, and political instability. There are still plans to initiate SHI and merge administratively and financially with the CBHI schemes.[2]

3. OVERVIEW OF THE CURRENT NHI SCHEMES

Rwanda

- The Rwanda Social Security Board (RSSB) centrally manages a nationwide network of district CBHI schemes known as Mutuelles de Sante, which provide mandatory health insurance to the informally employed and the poor.[2,3]
- The RSSB also manages a medical scheme for both public and private formal sector employees' (RAMA*).[2,3,9]
- The Medical Insurance Scheme of the University of Rwanda (MIS/UR) was created in late 2013 (based on the previous National University of Rwanda system started in 2001) and serves the whole UR community of staff, students, and their families.[4]
- The Military Medical Insurance scheme is a compulsory scheme for military personnel supported by the government.[3]
- The National Bank of Rwanda is responsible for the regulation of insurance, and the National Health Insurance Council advises and supervises the setting of prices and tariffs for health services.[3]

Ghana

- The current NHIS system design is defined by the 2012 National Health Insurance Act that established the National Health Insurance Authority to implement the NHIS and established the NHI Fund to pay for the costs of the scheme.[10]
- The NHIS is the only government insurance mechanism meant to provide coverage to all residents of Ghana.

Gabon

- At present, the Gabonese CNAMGS has three financially separate insurance funds: the GEF, the State and Civil Servants Fund, and the Private Sector Fund.[2,3,5,7]
- The GEF provides free coverage for the poor, the elderly, and students.[2,3,5,7]
- Membership in CNAMGS is compulsory for public and private formal sector employees in their respective schemes.[2,3,5,7]
- There is a principle across all three schemes: registration comprises all household members (spouses, children under 18 years of age, and students under 23 years of age).[5]

Kenya

- Kenya's NHIF is a public institution that oversees multiple government health insurance schemes that include:
  1. SUPA Cover: covers formal sector employees, informal sector enrollees, and sponsored members and their families
  2. The Civil Servants Scheme: covers public employees and their families
  3. Linda Mama: provides all pregnant women who register with NHIF access to maternal care
  4. EduAfya: covers students registered in public sector schools.[4]

Tanzania

- The largest government-managed pre-payment schemes in the country are the CHFs, which are managed by district-level authorities and designed to provide voluntary coverage to the informally employed in rural areas and improve resource mobilization.[2]
- The Tiba kwa Kadi is similar to the CHF providing voluntary coverage to the informally employed in urban areas.
- The iCHF is an alternative scheme to CHFs that pools funds at the regional level and provides access to higher levels of care.
- The NHIF provides mandatory coverage to civil servants and their dependents. It also provides voluntary coverage to other groups.[5]
- The NSSF provides a medical benefit to enrolled formal private sector employees and their dependents and is known as the SHIB.[6]

Ethiopia

- The CBHI schemes in the country are a government run program with community involvement in the scheme design, management, and supervision.[4]
- CBHI schemes function administratively and financially at the woreda level with support and supervision from the federal and zonal levels.[4,6]
- The schemes have been introduced in ~ 75% of the countries woredas to date.[6]
- The decision for a kebele/tabia (village) is made collectively by the population. However, actual enrollment is voluntary at the household level. Each kebele/tabia is a section of a CBHI scheme which collectively are managed at the woreda level.[7]
- Before the launch of a new CBHI, extensive training and sensitization is provided to all levels of stakeholders.[7]

* Known as the Rwandaise d'Assurance Maladie in French.

4. BENEFITS PACKAGE

Rwanda

- CBHI beneficiaries are entitled to a comprehensive range of preventive, rehabilitative, curative, laboratory, pharmacy, and ambulance referral services that are portable across public facilities and some private health posts at the PHC level in the country. Benefits packages are defined for each facility level, and health posts and health centers serve as gatekeepers to mitigate moral hazard at hospitals.[5]
- Members of the RSS formal sector employee's scheme, the MMI, and private health insurance schemes are also entitled to nearly identical comprehensive benefits package that includes OPD, IPD, and emergency services from public and private facilities. 85% of medical bills are covered with a 15% patient copay.[10]
- The MIS/UR provides access to OPD, IPD, specialized treatment, overseas treatment for urgent cases, eyeglasses, and prostheses. There are no waiting periods for benefits following enrollment.

Ghana

- The benefits package is prescribed by the MOH, which is assessed by the NHIA every six months.[5]
- The NHIS benefits package is designed to cover 95% of diagnosed conditions. It covers all OPD, IPD, and emergency care with a list of excluded conditions. It explicitly does not cover preventive services such as checkups or malaria prevention, and it does not cover family planning.[2]
- There are no out-of-pocket costs for services or pharmaceuticals.[2]
- The NHIS benefit package is largely focused on the curative stages of health care and does not explicitly cover preventive services. For example, it does not cover check-ups, family planning, or malaria prevention.[2]

Gabon

- The CNAMGS benefits package includes:
  1. Outpatient care (consultations, nursing, dental, small surgeries, and diagnostics)
  2. Maternal care (antenatal, delivery, and postnatal)
  3. Hospitalizations (professional fees, room and board, referrals, and diagnostics)
  4. Drugs and devices
  5. Foreign referrals for curable diseases if no in-country care is available.[5,6]
- Excluded from the package are services directly funded by the MOH through vertical programs (HIV, TB, family planning), aesthetic surgery, traditional medicine, or health promotion, prevention, or public health services.[2,5]
- Members from all three funds are required to make 20% copayments for most services, 10% copayments for chronic disease services, while maternity care, dialysis, and cancer treatments are provided free of charge.[5]
- It has been observed that these copayments create barriers for poor GEF members to access more costly levels of care.[6]
- The benefits package is established and updated through government decrees. Based on MOH epidemiological analysis, the MOH and MOLEW review with explicit considerations for the budget impacts of included services.[5]

Kenya

- The SUPA Cover benefits include PHC, OPD, IPD, maternal care, reproductive health services, renal dialysis, surgical procedures, overseas specialized surgeries not available in-country, emergency road evacuation, imaging, and cancer treatments.[4,5]
- The CSS scheme benefits are the same as SUPA Cover plus fertility services, dental, vision, last expenses, and air evacuation.[4,5]
- Linda Mama benefits include antenatal care, delivery services, and postnatal care.[4]
- EduAfya benefits include PHC, OPD, IPD, dental care, optical care, emergency road and air evacuation, overseas treatment, and last expense.[4]
- There are no copayments included as patient obligations in the NHIF benefit packages. However, there are benefit caps specific to individual service areas.[5]

Tanzania

- The CHF only offers a benefits package of PHC level care, and each district has the autonomy to determine what is included. Most districts only cover preventative and curative services provided by dispensaries and health centers, including diagnostics and medicines. In many districts, portability is limited to the facility of registration, while some have opened access to facilities throughout the district. Only a few districts offer access to IPD services and require a co-payment.[2]
- The iCHF benefits package includes OPD (including chronic conditions) and IPD (including minor and major surgery, limited to 5 days), maternity, investigations, and medicines, all with a 14-day waiting period.[4]
- The benefits package provided by the NHIF is comprehensive and includes OPD, IPD, dental, eye care, surgery, prosthetics, rehabilitation, imaging, cancer, dialysis at all levels of the health system.[9]
- The NSSF SHIB provides a comprehensive benefits package with exclusions for other NSSF benefits (e.g. maternity), free government services (e.g., immunizations, TB, Cancer, HIV, etc.), road injuries covered by third-party insurance, cosmetic surgeries, etc.[11]

Ethiopia

- The CBHI schemes provide access to outpatient and inpatient services at public facilities.[2,4]
- CBHI members are expected to first visit a Health Post or a Health Center when seeking care, where they can receive a referral letter to a higher level for care as needed.[2]
- There are very few differences between the benefits packages put in place in the CBHI schemes and those proposed for the SHI scheme, except that CBHI members are required to enter the system through more limited rural facilities.[2]

5. ENROLLMENT AND MEMBERSHIP

Rwanda

- Enrollment in a health insurance scheme is mandatory for all Rwandans.[2,3,5,6]
- Rwanda's CBHI system covers as of 2019/20 79.6% of the country's population, the highest enrollment in health insurance in SSA.[7,8]
- The RSSB medical scheme for formal public and private sector employees automatically enrolls public employees, and private sector companies with seven or more employees can join through payroll deductions.[9] Currently covers 6% of households in the country.[9]
- The MIS/UR services the entire UR community of ~30,000 students and staff as well as their family members. UR Staff remain covered after retirement. Orphans, widows, and widowers of deceased retain coverage at no contribution. Graduates retain coverage for one year.
- A socio-economic classification system, known as Ubudehe, is managed by the Ministry of Local Government, conducts wealth ranking of all households in the country, stratifying them into six groups.[3,6]
- Each district CBHI scheme is divided into sections containing a single health center. Enrollment in CBHI can be done at every health center, and contributions are based on Ubudehe rankings, with the poorest two groups enrolled free of charge through direct financing from the central government.

Ghana

- By law, all Ghanaians are required to enroll in the NHIS and may also belong to a private insurance scheme.[10]
- Enrollments are processed by registration officers who determine if premiums are to be paid or an exemption applies. Pictures and fingerprints of enrollees are collected, and a biometric card is issued. Enrollees must also select their preferred primary provider at enrollment.[11]
- Depending on the category of the enrollee, card processing fees and premium contributions are collected.
- Pregnant women, indigents, the differently-abled, those under 18 and over 70 years of age are exempt from premium contributions.
- Formal sector employees contribute to the Social Security National Insurance Trust (SSNIT), a portion of which goes towards their contributions to the NHIS.
- As of the 2014 DHS, nearly 58% of the population was covered by the NHIS, with only an additional 1% covered by CBHI.
- Maintaining enrollment is a major problem in the scheme, with multiple studies finding that re-enrollment is a major barrier. Annual registration fees and perceived contents of the benefits package have been barriers that have resulted in the scheme experiencing financial stress.[6]
- There is a great deal of turnover among NHIS members. Out of all active members in January 2014, only 42% remained in the scheme in January 2015.[2]

Gabon

- Membership in CNAMGS is compulsory for public and private formal sector employees who contribute through salary deductions matched by employer contributions.[5]
- As of 2017, private sector employees contribute 2% of their salaries with 4.1% employer match, and public sector employees contribute 2.5% of the wages, and the government additionally contributes 5% for their membership in CNAMGS. The retired contribute 1% of their pension.[5]
- Membership of poor households, students, and the elderly in the GEF is through registration that includes a survey to establish that a person meets the basic criteria of being below the poverty line.[5]
- There is a principle across all three schemes: registration comprises all household members (spouses, children under 18 years of age, students under 23 years of age).[5]
- After being registered as a member of the CNAMGS, members receive a biometric insurance card before gaining access to the same benefits package across all three funds.[2,5,6]
- The latest coverage figures indicate the Private Sector Fund covers 9% of the population, the State Civil Servants Fund 12%, and the GEF 33% resulting in 54% of Gabon's population enrolled and covered by the national health insurance schemes. At present, workers in the informal sector remain uncovered.[3]

Kenya

- By law, membership in the NHIF is compulsory. However, given the lack of enforcement mechanisms among informally employed populations, the membership is voluntary by de facto.[5]
- Formal sector private and public employees are required to enroll in either SUPA Cover or the Civil Servants Scheme of the NHIF and do so through mandatory payroll deductions every month.[4]
- Informally employed residents of Kenya are eligible to enroll in SUPA Cover and can do so through NHIF service centers.[9]
- Since 2014, the government has supported the health insurance subsidy for the poor (HISP) program that has progressively scaled up coverage of the poorest 10% of the population identified through proxy means testing and community verification.[5]
- All pregnant women in the country are eligible to enroll in the Linda Mama program for free and can do so through a mobile phone application, online, at contracted health providers, at NHIF service centers, or at Huduma centers nationwide and are issued registration membership cards.[9]
- EduAfya enrollment is automatic for all public secondary students and includes biometric registration by the NHIF onsite at respective schools.[9]

Tanzania

- In the CHF scheme, facilities manage enrollment of households, a few enroll individuals, and some practice group enrollment to mitigate adverse selection. Enrollment is for a full year and reached an estimated 18 million by 2017. However, there are high rates of non-renewal, especially in years with low crop yields.[2,3]
- There are no waiting periods, and hence no incentives, for patients to enroll before becoming sick. Facilities are also not incentivized to promote enrollment, given that provider payments are not based on utilization.[2,4]
- In the iCHF scheme, enrollment is actively promoted at the household level and enrolls the household as a unit of up to 6 members. When enrolling households, they must choose their preferred primary provider. However, they can switch after three months if dissatisfied.[4]
- Combined the CHF and iCHF are estimated to cover 25% of the population in 2018.[10]
- The NHIF has mandatory enrollment for civil servants as well as voluntary enrollment from other groups that require an annual premium.[2]
- In 2019, the NHIF covered an estimated 9% of the population.[9]
- The NSSF provides the SHIB to all members who submit an enrollment form for the member, spouse, and up to four children after three months of continuous NSSF contributions and to pensioners based on a deduction to their pensions. Upon enrollment in the SHIB, members must choose a preferred medical provider per year.[11]

Ethiopia

- The annual household premium level to join a CBHI scheme is 180 birr (US$4.14 current), with some variations by region that can include limits of the number of household members or additional payments for children.[4]
- Officially, membership in a CBHI scheme is voluntary at the household level. However, there is a strong commitment within the government to promote membership. In some cases, this has led to blurred lines between voluntary and compulsory, with pressure to deduct premium payments from social transfers to food-insecure households or collecting CBHI premiums at the same time as compulsory tax payments.[2]
- The system has been expanding enrollment dramatically in the last few years. The latest performance report from the Ethiopian Health Insurance Agency notes that an estimated 32.2 million Ethiopians are registered members as of 2020, representing an estimated 29% of the population.[6]
- The planned SHI (which has yet to launch) would be compulsory for both private and government formally employed workers with a. suggested payroll deduction of 3% with a 3% match from employers.[2]

6. PROVIDERS

Rwanda	Ghana	Gabon	Kenya	Tanzania	Ethiopia
• The CBHI scheme primarily contracts with public providers at all levels of the system. The current RSSB strategic plan for CBHI envisions increased engagement with private health care providers.[9] • The RAMA and MIS/UR have contracts with various public and private health service providers nationwide that include health centers, private clinics, district and referral hospitals, and specialized providers.[4,10]	• Providers have to be accredited by the NHIA based on having already received accreditation from a national regulatory body, have been in operation for at least six months, be in good standing for service provision, provide information on staffing, infrastructure, and services provided, accept NHIA's quality assurance standards and payment mechanisms, and agree to allow on-site inspections by the NHIA and implement corrective measures as necessary.[2,5]	• The CNAMGS purchases services from public, faith-based non-profit, and private outpatient and hospital facilities signed partnership agreements.[5,7]	• All four NHIF schemes purchase services through both public and private providers.[4]	• The CHF scheme nearly exclusively purchases from public dispensaries and health centers.[2,4] • The iCHF contracts with public, private, and faith-based facilities.[4] • The NHIF schemes contract with the public (75%), private (14%), and faith-based (11%) providers.[3] • The NSSF-SHIB scheme contracts with public, private, and faith-based providers.[2,3]	• The CBHI schemes almost exclusively contract with public providers to deliver services.[2,4]

7. PROVIDER PAYMENT MECHANISMS

Rwanda	Ghana	Gabon	Kenya	Tanzania	Ethiopia
• Under the CBHI scheme, providers are paid through a fee-for-service mechanism that is based on the monthly submission of invoices that are audited before payment as well as capitation payments. High- or mid-income CBHI members are also required to make flat rate co-payments at health centers and pay 10% of hospital bills.[6] • The RAMA and MIS/UR schemes pay providers through a fee-for-service mechanism that includes 15% co-payments for patients at the point of service.[4,10] • CBHI premiums are collected at the section level, where 55% of revenue is kept for payment of the health center. The remaining 45% of revenue is transferred to the district-level pool, where it is used to pay for hospital-level services. 10% of the revenue at the district level is transferred to the national level for payment of referral level services.	• Providers were initially paid only on an FFS basis, but over time, the payment system evolved to using DRGs IPD services and capitation for OPD services to contain costs. Pharmaceutical costs are reimbursed to providers on an FFS basis.[2] • Private health care providers receive higher DRG tariffs and capitation rates to compensate for their lack of public funding. The reimbursable cost of general consultation for an adult patient is 76% higher for a private primary hospital and 48% higher for a private clinic than it is for a public primary hospital.[2] • The NHIS is a major source of operational funding for health facilities. The MOH generally covers the wages of health care workers, and facilities rely on NHIS to recover their operational expenditures.[2] • The NHIS payment system does not promote cost-consciousness among service providers and encourages oversupply of	• Providers are paid using a fee-for-service and hospitalization days payment mechanism based on claims submitted to regional CNAMGS offices that include patient details, diagnosis, services received, and provider information.[2,5] • All members across the three CNAMGS schemes are required to pay a 20% copayment at the point of services for common illnesses and a 10% copayment for chronic illnesses.[5] • The use of a fee-for-service payment mechanism has created significant amounts of administrative burden for billing and accounting within the system.[6] • The CNAMGS system includes a Directorate of Medical Control and the Fight Against Fraud, which verifies the validity of services reported in provider invoices. Invoice reviews are led by medical doctors and pharmacists that include regular visits to	• The SUPA Cover and Civil Servant schemes both pay providers through capitation for outpatient services and a combination of fixed fee and per diem payments for inpatients.[4] • The Linda Mama scheme pays fixed fees for antenatal care, deliveries, and postnatal care[4] • The EduAfya scheme pays a fixed fee for each visit.[4] • Each of the NHIF insurance schemes has separate payment rates to the same contracted providers.[5]	• Under the CHF scheme, providers are paid, often in-kind, based on perceived need by district health officers, not on outputs or performance. User fees are generally very low, and patients prefer to pay per visit rather than invest in a year of health insurance which can cost 10x more.[2,4] • Under the iCHF scheme, the NHIF pays public and private facilities through monthly capitation fees via bank transfers, which are 50% higher for private providers to compensate for their lack of government funding. Capitation rates are 70% based on utilization, 20% on enrollment, and 10% on catchment population.[4,7] • The NSSF-SHIB scheme pays providers through a capitation-based system.[11]	• Providers are paid through a fee-for-service mechanism. • Claims management is managed by the CBHI administration, located within the woreda administrative offices.

	services, and because facilities are dependent on NHIS for their operating costs, they have little incentive to be efficient in claims expenditures. • Claims processing by NHIA is labor-intensive and inefficient. Claims are vetted on an individual basis. Most claims are evaluated manually. The NHIA employs hundreds of staff to vet claims.[2] • Between 2011 and 2014, there was at least four months delay in paying almost all the financial claims made due to poor funding, manual process of claims, and mismanagement of scheme funds.[8]	hospitalized patients who are aided by a computerized system that provides information on providers, members, medical procedures, and prescriptions.[5] • A lack of sufficient inspectors challenges the system to cover all the facilities, and their supervision of quality is not connected to the payment for services.[5]			

8. GOVERNANCE

Rwanda	Ghana	Gabon	Kenya	Tanzania	Ethiopia
• Both the CBHI schemes and the RAMA medical scheme for formal employees are managed by the Rwanda Social Security Board that has centralized financial management of the schemes and put in place limited cross-subsidization mechanisms.[6,7,9,10] • The MIS/UR is governed by a Board of Directors composed of representatives for student and staff associations.[4] • The National Bank of Rwanda is responsible for the regulation of insurance, and the National Health Insurance Council advises and supervises the setting of prices and tariffs for health services.[3]	• The NHIS is governed by the National Health Insurance Authority, which has the role of implementing the NHIS. • The NHIA is governed by a Board that includes representatives of relevant government line ministries/institutions, medical professions, various experts, and the NHIS Chief Executive who are appointed by the President.	• The NHISCF is an SHI scheme that functions as a third-party payer under the supervision of the Ministry of Labor, Employment, and Social Welfare.[5] • The NHISCF has a Board of Directors (BOD) that includes representatives of government line ministries, employers, and employees. The scheme is headed by a Director-General who is assisted by three Deputy General Managers (all appointed by the President of the Republic based on recommendations by the BOD.[5] • The NHISCF has decentralized management structures in each of the country's nine provinces.[5]	• The NHIF is overseen by the Cabinet Secretary for Health, who is responsible for general policy and strategic direction.[10] • The Board of Management, led by a chairperson, has representatives from key stakeholders, including line ministries, trade unions, employers, the Kenya Medical Association, and faith-based healthcare organizations. The BOM runs the NHI through policy formulation and decision-making on policy matters.[10] • The BOM includes four committees made of board members that include: 1) Governance, Strategy, and HR, 2) Operations and Quality Assurance, 3) Finance and Investment, and 4) Audit Integrity Assurance.[10] • The NHIF CEO is responsible for the implementation of BOM decisions with the support of the senior management team.[10]	• The CHF scheme at the local level is managed by the district government, who are also responsible for the management of public health facilities, making them both the purchaser and the provider.[2,4] • The iCHF schemes are owned by districts, but the central NHIF is responsible for administration, marketing and carries the medical insurance risk. Nationally the NHIF is responsible for iCHF implementation. • The NHIF is a government entity that operates under the MOH with management vested in a Board of Directors and day-to-day operations managed by a Director-General.[4,9]	• At the national level, the CBHI program (and the planned SHI scheme) is managed by the Ethiopian Health Insurance Agency (EHIA), which was established in 2010 as an autonomous federal government organ by the Council of Ministers. [8] • The EHIA has established 24 branch offices throughout the country [8] • Individual CBHIs are managed at the woreda level. The schemes are integrated within the woreda administration offices , who are responsible for pooling and administering CBHI funds, contracting providers, and processing reimbursements.[7] • Each woreda CBHI scheme has a board that is comprised of CBHI members.[7]

9. FINANCING

Rwanda

- The CBHI scheme is primarily funded through household premiums, which in 2012/13, were 66% of total revenue. An additional 14% was contributed by the central government, 10% from the Global Fund, and 6% from patient co-payments, followed by other various incomes.[5]
- CBHI members that are in the highest two Ubudehe determined that wealth categories pay a total of 7,000 (US$7.07) RWF per household per year. CBHI members in the middle two wealth categories and pay 3,000 RWF (US$3.03) per household per year. Both of these groups also make flat-rate co-payments at health centers and pay 10% of hospital bills when accessing services.[5]
- The lowest two wealth categories are enrolled in their CBHI scheme at no charge, and the central government pays their premium to their respective CBHI section of 2,000 RWF (US$2.02) per household per year.[5]
- The RSSB medical scheme for private and public sector employees is funded through a payroll tax of 15% that includes a payroll deduction of 7.5% from employees and a matching contribution of 7.5% from employers.[11]
- The MIS/UR is financed through contributions paid by subtends and staff. Undergraduate students pay 7,000 RWF (US$7.07), graduate students 8,400 RWF (US$8.48), and staff contribute 7.5% of their basic monthly salary, which is

Ghana

- The NHIA has six sources of revenue:
  1. The NHI Levy is a 2.5% VAT on selected goods and services
  2. 2.5% social security deductions from formal sector workers managed by the Social Security and National Insurance Trust (SSNIT)
  3. Annual budget allocations approved by parliament
  4. Accruals from investments of surplus funds held in the NHIF
  5. Grants, gifts, and donations made to the NHIF
  6. Premiums/contributions paid by NHIS subscribers[2,4]
- In 2016, 72% of revenue was from the VAT, 20% from SSNIT, 4% from investments, and only 3% from premium collections [4]
- Ghana is the only country in the world to finance its NHI primarily through VAT taxes, which has created a stable source of financing that is linked to economic growth. However, utilization rates have been rising, leading to operational deficits that cause the NHI to draw down its investment fund and require loan financing.[1]

Gabon

- Funding of the CNAMGS system varies by each fund, and there is no cross-subsidization or equalization across the funds. The Private Sector Fund is financed wholly by member salary deductions and employer matching contributions (i.e., payroll taxes) and is self-sufficient.[5]
- Salary deductions also fund the Civil Servant Fund, but given that they are government employees, the employer match is financed through general government revenues. The GEF was initially financed through the Compulsory Health Insurance Tax (ROAM)†, which was a 10% levy on the gross pre-tax revenue of mobile phone companies as well as a 1.5% levy on money transfers outside of the Economic and Monetary Community of Central Africa .[5,6]
- In 2017, the ROAM tax was abolished and replaced by the Special Solidarity Contribution,‡ which is a 1% levy on manufacturers, importers, wholesalers, and retailers of domestically consumed goods and services, as well as a continued 1.5% levy on external money transfers.[3]
- Revenue generated through either payroll taxes or the special levies is transferred from the public treasury to the CNAMGS regional offices that directly pay providers for invoiced services to insured members. All three CNAMGS funds contribute to the operating costs of the system.[5]
- The CNAMGS faces challenges in managing its separate funds,

Kenya

- The NHIF is fully funded through member premium contributions and employer contributions.[11]
- Membership in the NHIS is mandatory for formal sector workers who pay an income-rated monthly contribution through statutory deductions. It is voluntary for informal sector workers who pay a flat rate contribution directly to NHIF.[5]
- Premiums from the national scheme in 2018 amounted to 68.8% of the scheme's total revenue. The CSS, HISP, and Linda Mama schemes generated an additional 26.7% and investments 4.5%.[12]
- In 2018, total revenue was 47.9 billion Kenya shillings (KSH). Expenditure for benefits was 37.6 billion KSH (78.5%), and for administrative costs, 8.3 billion KSH (17.4%), leaving a total surplus of 2.0 billion KSH (4.1%).[12]

Tanzania

- The CHF schemes have two main sources of income: member premiums and matching grants paid by the central government. Annual premium levels range between TSH 5,000 and 30,000 per household. District councils are meant to dedicate 5% of the budget to subsidies for the poor. Few do. Premiums are pooled in a 'cost sharing' account that also includes user fees and NHIF matching funds. Research has shown that expenditures exceed revenues.[2]
- The iCHF scheme has a total premium of 60,000 TSH, half of which is paid by enrolled households matched by a 50% payment from the central government through the NHIF.[4] 10% of collected premiums compensate enrollment officers, 9% for administration, and 80% go to provider capitation payments, with 1% dedicated to reserves. NHIF matching contributions are 15% for administration, 80% for capitations, and 5% for reserves.[7]
- The NHIF is funded through a 6% payroll deduction split between employees and employers. Voluntary enrollees to NHIF pay an annual TSH 1,501,200 (US$672.60) per household but are very few. In 2016/17, 84% of NHIF revenue was from premiums and 16% from investments. 79% of expenditures were for benefits, 15% for admin, and 6% for capital investments. NHIF revenues have consistently exceeded expenditures.[3]

Ethiopia

- The CBHI schemes are primarily financed by premium contributions from members.[5]
- The federal government provides a 10% contribution based on their total income. The government supported CBHI schemes at the rate of 25% until 2015, when it was scaled back to 10%.[5]
- Indigents are provided membership in the CBHI schemes with the premiums paid with a 70% contribution from the regional government and a 30% contribution from the woreda.[5]
- In 2019, 1.311 billion birr (US$30.12 million) was collected from CBHI premium contributions. An additional 330 million birr (US$7.58 million) was provided in government subsidies, of which 157.7 million birr (US$3.62 million) was from the federal level.[5]

† The Redevant Obligatoire à l'Assurance Maladie (ROAM)

‡ Contribution Spéciale de Solidarité

matched by a 7.5% contribution from UR per the labor law.[4] • MMI scheme members contribute a monthly premium of 17.5% of their gross salary, which is matched by a 5% contribution from their employer.[11] • As of January 2021, there is a mandatory 0.5% payroll deduction from formal sector worker incomes to subsidize the CBHI scheme.[12]	which have created complex funding flows to health care providers where patient data management and financial reporting across the funds are not consolidated.[3] • The financing of the GEF, while improved with the introduction of the Special Solidarity Contribution, is partially subsidized by general government revenues putting the GEF at financial risk.[3]	

10. COMPARATIVE TABLE REFERENCES

Rwanda	Ghana	Gabon	Kenya	Tanzania	Ethiopia
[1] (World Bank Group n.d.) [2] (Rwanda Ministry of Health 2019) [3] (Chemouni 2018) [4] (Rwanda 2020) [5] (African Strategies for Health 2016) [6] (Nyinawankunsi et al. 2015) [7] (Rwanda Social Security Board n.d.) [8] (Barasa et al. 2021) [9] (Rwanda Social Security Board 2020) [10] RSSB n.d. [11] (McIntyre et al. 2018) [12] (Rwanda Revenue Authority 2020)	[1] (World Bank Group n.d.) [2] (Wang, Otoo, and Dsane-Selby 2017) [3] (Ghana Open Data Initiative 2016) [4] (Kipo-Sunyehzi et al. 2019) [5] (Otoo et al. 2014) [6] (Okoroh et al. 2018) [7] (Ghana Ministry of Health 2004) [8] (Christmals and Aidam 2020) [9] (McIntyre et al. 2018) [10] (Republic of Ghana 2012) [11] (Ghana National Health Insurance Authority n.d.)	[1] (World Bank Group n.d.) [2] (Saleh, Couttolenc F., and Barroy 2014) [3] (Aboubacar et al. 2020) [4] (World Health Organization n.d.; Mibendzou Mouelet, El-Idrissi, and Robyn 2018) [5] (Mibendzou Mouelet, El-Idrissi, and Robyn 2018) [6] (Humphreys 2013) [7] (Sanogo and Yaya 2020)	[1] (World Bank Group n.d.) [2] (Kenya Ministry of Health n.d.) [3] (Masaba et al. 2020) [4] (Mbuthia, B., Vilcu, I., Ravishankar, N., Onder 2019) [5] (Barasa et al. 2018) [6] (Abuya, Maina, and Chuma 2015) [7] (Republic of Kenya 2012) [8] (National Hospital Insurance Fund n.d.) [9] (Kenya Ministry of Health and National Hospital Insurance Fund 2018) [10] (Kenya Office of the Auditor-General 2017) [11] (The Government of Kenya 2020; Kenya National Hospital Insurance Fund 2018) [12] (Kenya National Hospital Insurance Fund 2018)	[1] (World Bank Group n.d.) [2] (Wang and Rosemberg 2018) [3] (Ally and Piatti-Funfkirchen 2020) [4] (PharmAccess Foundation 2016) [5] (Mtei and Mulligan 2007) [6] (Haazen 2012) [7] (Lee, Tarimo, and Dutta 2018) [8] (Prabhakaran and Dutta 2017) [9] (Tanzania National Health Insurance Fund n.d.) [10] (Tanzania Ministry of Health Community Development Gender Elderly and Children 2019) [11] (Tanzania National Social Security Fund n.d.)	[1] (World Bank Group n.d.) [2] (Lavers 2019) [3] (Fagan, Lang, and Lee 2019) [4] (Demissie and Negeri 2020) [5] (Ethiopian Health Insurance Agency 2020) [6] (Ethiopian Health Insurance Agency 2021) [7] (Ethiopian Health Insurance Agency 2015) [8] (Ethiopian Health Insurance Agency n.d.) [9] (Ferrer-I-Cancho 2017) [10] (Admasu 2016)

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