Tanzania's Improved Community Health Fund
An Analysis of Scale-Up Plans and Design

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Introduction

Since 2015, the Health Policy Plus (HP+) project, funded by the U.S. Agency for International Development (USAID), has provided technical assistance to inform the prioritization of health financing initiatives in Tanzania, of which scale-up of health insurance is the principal reform. Universal health coverage (UHC)—one of the United Nations' global Sustainable Development Goals—has become a major policy priority in Tanzania. Increasing domestic resource mobilization through the establishment of sustainable financing mechanisms for health is an important component of the UHC agenda.

As a means to end fragmentation of health insurance coverage, increase resources for health, provide a minimum benefits package for all, and increase the efficiency of health spending, the ultimate goal of the health insurance reform agenda is the establishment of a single national health insurer, or SNHI. In Tanzania, the proposed SNHI legislation is expected to be considered by the National Assembly in November 2018. If the bill is passed, implementation is not expected to begin until 2019 or 2020.

Until that time, the interim plan is to have two concurrent schemes: the national health insurance fund (NHIF) and the improved community health fund (iCHF). The NHIF, which has an enrollment of about 3.5 million beneficiaries as of fiscal year (FY) 2016/17, is expected to cover the formal sector; funds will continue to be pooled nationally. A proposed legislative amendment would make enrollment automatic and mandatory for all formal sector workers. This includes the formal public sector (comprising civil servants, other government workers, and their dependents) and the formal private sector.

Meanwhile, in March 2018, council management teams and enrollment officers began training for the launch of the iCHF, an alternative insurance scheme to NHIF intended to cover the informal sector and rural households. The prior implementation of the scheme, the community health fund (CHF), had an enrollment of over 2.1 million households, covering roughly 12.6 million beneficiaries as of FY 2016/17, and pooled funds at the district level (see Figure 1). Immediate plans for the iCHF are to pool funds at the regional level.

All beneficiaries covered by the iCHF are entitled to services available up to the regional hospital level, subject to an exclusion list comprised predominately of specialized procedures and drugs (MOHCDGEC, 2018a). Access to district and regional hospitals requires a referral letter from primary health facilities.

Figure 1. Historic CHF Enrollment
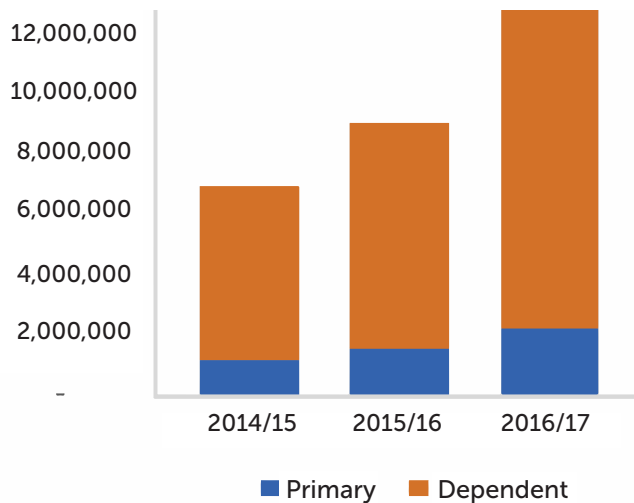
Source: NHIF, 2017

A portion of iCHF enrollment for the poor is expected to be subsidized by the government of Tanzania. The definition of "poor" in this context refers to those living on an income that is below the national poverty line, reflected in the country's specific cost for basic consumption needs—equivalent to about US$1 per capita per day using 2005 purchasing power parity estimates (World Bank, 2015). A household budget survey estimated that 28 percent of Tanzania's total population will be eligible for the subsidy (MOHCDGEC, 2018a). In the interim reform plan, the iCHF's contribution rates and provider payment mechanisms will be uniform across Tanzania.

Scaling-up the iCHF, under the NHIF's oversight, is considered an essential step in promoting access to healthcare while national health insurance reforms continue to be deliberated. The iCHF implementers taskforce, led by the Ministry of Health, Community Development, Gender, Equity and Children (MOHCDGEC), has made significant progress to this end (see Box 1), releasing an iCHF design document in April 2018 (MOHCDGEC, 2018a). This document provides a short-term plan for iCHF rollout, but questions remain regarding cost implications and benefits of scheme scale-up. For example, the CHF's matching fund, allocated by the Tanzanian

Box 1. iCHF Premiums and Contributions

Premiums per year

- In Dar es Salaam, premiums are set per beneficiary at TZS 45,000 (US$20) or TZS 150,000 (US$65) per household of six

- In all other urban areas in the country, premiums are set per beneficiary at TZS 30,000 (US$13)

- In rural areas, premiums are set per household at TZS 30,000 per household of six. Each additional adult is set at TZS 30,000 and each additional child is set at TZS 10,000 (US$4)

- Households larger than six may choose to form a separate family group

Government of Tanzania matching contribution

- TZS 30,000 (US$13) per household of six

  *The matching contribution combined with the beneficiary contribution equals a total of TZS 60,000 collected per household

government as supplemental income to help sustain the CHF scheme by covering a portion of the premiums for informal sector households, was primarily sourced from the health basket fund (HBF) allocation to MOHCDGEC. The HBF is a mechanism funded by development partners that pools un-earmarked resources to support implementation of the *Health Sector Strategic Plan IV* at the primary healthcare level. In practice, this matching fund was erratically accessed due to poor administration on the part of district councils, and significant portions went unspent each year. In FY 2014/15, only 1.05 billion Tanzanian shillings (TZS), or US$0.52 million, was disbursed from the NHIF to local government authorities (LGAs) for CHF matching funds out of an allocation of TZS 1.9 billion (US$0.94 million). The iCHF is intended to be implemented with improved governance and local administration and targets a higher total premium revenue collection; as such, a significant increase in the required matching

fund can be expected. This will likely strain the sustainability of the matching fund allocation—and, without a commitment from the HBF, its funding source remains unclear.

Study Objectives

Tanzania's *Health Sector Strategic Plan IV* places emphasis on improving access to health services for the poor and vulnerable, who are expected to be subsidized for iCHF membership based on socioeconomic status. The total funding that is required to fully subsidize premiums for the poor in the iCHF has not been clearly quantified. The CHF Act, legislation that provides the mechanism to establish, manage, and administer the CHF fund, states that district councils are supposed to allocate five percent of their revenue to fund subsidies for the poor, but in practice few districts have set aside funds in their budgets for this purpose (GOT, 2001; MOHCDGEC, 2018a). Assuming that just one-third of districts have been complying with this stipulation, about 446,000 poor people should currently be enrolled in the iCHF, representing about three percent of total beneficiaries enrolled and three percent of the poor population.

HP+ estimated required costs under various scale-up scenarios of the iCHF to inform government decision making on matching fund allocations and use, and consideration of other potential funding sources. In the short term, the possibility for cross-subsidization of the iCHF by the NHIF, which currently runs a surplus, is not being considered by policy-makers—but this discussion may be revisited as SNHI legislation progresses. A clear understanding of expected iCHF implementation benefits in terms of access and coverage of the poor and vulnerable is required to advocate for the necessary funding. In the event that full financing for the poor is not available, a plan to apply available funds equitably will need to be developed.

This study attempts to clarify the government of Tanzania's financing implications for the

iCHF from 2018 to 2026 and illuminate potential challenges that may arise from future implementation of the SNHI (see Box 2 for classification of government obligations). This analysis focuses on how scale-up of the iCHF can effectively cover Tanzania's poor population, and the cost of doing so. Generating this evidence will assist decision-makers in developing the final approach for national rollout of the iCHF.

> ### Box 2. Categorization of Government Obligations
>
> **Government matching funds:** to assist with scheme sustainability
>
> **Subsidies:** to cover premium payments of the extremely poor

Approach

To help alleviate threats to iCHF sustainability and reveal potential improvements in iCHF design, HP+ worked in close coordination with the iCHF implementers' taskforce to assess projected benefits and costs of different scale-up strategies in terms of improved access and coverage of the poor and vulnerable. This analysis considers the impact of expansion of enrollment, population demographics, and regional variations. Individuals' employment status was classified as either formal sector public, formal sector private, informal sector (non-poor), or poor. Flexibility was built into the model design for those classified as formal sector private for choice in enrollment between the NHIF and iCHF. (This option was withdrawn from the iCHF design document, but was included in our modeling to inform discussion in the event that the option is revived in policy discussions.) Those that are classified as informal sector or poor and have been enrolled in insurance are assumed to be beneficiaries of the iCHF, per iCHF design.

Scheme Enrollment

The achievement of future iCHF enrollment growth rates is highly uncertain as knowledge

is limited regarding whether community-based **insurance can attract the non-poor informal sector and/or the indigent. In our model,** enrollment was varied based on three scale-up scenarios from 2018 to 2026: **realistic, optimistic,** and **pessimistic.** Details of these scenarios are presented in Table 1.

Table 1. iCHF Enrollment Growth Rates

Overall	2018	2019	2020	2021	2022
Realistic	24%	19%	16%	14%	12%
Optimistic	27%	22%	19%	16%	14%
Pessimistic	12%	10%	9%	9%	8%
Non-Poor	**2018**	**2019**	**2020**	**2021**	**2022**
Realistic	18%	15%	13%	12%	10%
Optimistic	18%	16%	14%	13%	12%
Pessimistic	9%	8%	7%	7%	7%
Poor	**2018**	**2019**	**2020**	**2021**	**2022**
Realistic	187%	65%	39%	28%	22%
Optimistic	288%	74%	43%	30%	23%
Pessimistic	88%	47%	32%	24%	19%

Source: NHIF, 2017; PharmAccess, 2017

Enrollment growth rates for the realistic scenario, which reflects status quo, was based on average historic enrollment growth rates achieved by CHF from 2014/15 to 2016/17. Reforms to CHF may improve upon the historical rates. Under the optimistic scenario, we used a rolling average of the enrollment growth rates in the **Kilimanjaro region from 2016 to 2017 achieved by PharmAccess, a Dutch nongovernmental organization that is active in supporting** community-based health insurance in Tanzania, using an improved CHF model. This scenario represents the maximum limit of what can be achieved in terms of enrollment. The pessimistic **scenario is based on voluntary enrollment rates that have been achieved in Ghana (Van de Poel, 2017).** Uptake in voluntary insurance schemes, **seen in developing countries in Southeast Asia** and Africa, has generally been very low.

For each of the three scenarios, it was assumed that enrollment growth would be highest immediately following the introduction of new insurance reforms and sensitization of the public on the benefits of having health insurance. Enrollment growth is expected to slow over time as a larger proportion of the population will **already be enrolled in the scheme. A sensitivity** analysis was conducted on the number of rural **members per household as an input variable.**

As aforementioned, the government of Tanzania **estimates that 28 percent of the total population** will be eligible for a premium subsidy; currently, 12.4 percent of the total population is eligible for the Tanzania Social Action Fund (TASAF), a social safety net program for the extremely poor **(Ginivan et al., 2018). Financing the subsidies** to cover those categorized as TASAF poor could **be an incremental target for subsidy coverage.** We interpolated iCHF enrollment of the poor to reach 100 percent coverage of the TASAF poor **population by 2026, and used this forecast as** the realistic scenario for subsidy coverage. The **pessimistic scenario used 50 percent coverage** of the TASAF poor population by 2026 and the **optimistic scenario used 66 percent coverage of the poor population by 2026.**

Provider Payment Mechanism

Based on the iCHF design document, all provider payments will be capitation. Ten percent of the premiums collected from beneficiaries is expected to be deducted to compensate enrollment officers **as payment for services (see Figure 2). Nine** percent will be used for administration costs and **80 percent for capitation (MOHCDGEC, 2018b).** The remaining one percent will be set aside as reserves. See Box 3 for the iCHF capitation formula. Of the government matching funds, 15 percent will be used for administration costs **and 80 percent for capitation (see Figure 3).** The remaining five percent will be set aside for **reserves (MOHCDGEC, 2018b).**

Of the pooled funds set aside for capitation, 70 percent is expected to be allotted to primary **healthcare facilities and 30 percent to hospitals. Under the iCHF design, capitation payments** will now flow directly to facilities instead of

Figure 2. iCHF Expenditure Breakdown for Beneficiary Contributions

Legend:
- Enrollment Officer Fee
- Administration Costs
- Reserves
- Primary Healthcare
- Hospitals
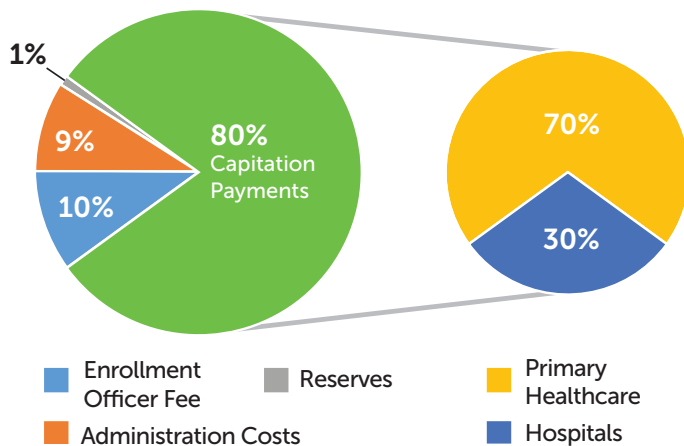
Source: NHIF, 2017; HP+, 2017; HP+ calculations

Figure 3. iCHF Expenditure Breakdown for Government Matching Contributions

Legend:
- Administration Costs
- Reserves
- Primary Healthcare
- Hospitals
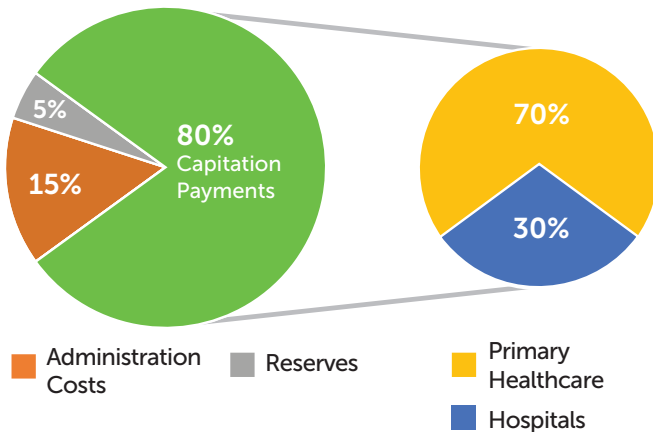
Source: NHIF, 2017; HP+, 2017; HP+ calculations

Box 3. iCHF Capitation Formula

The capitation rate is determined per facility using the following formula:

- **Utilization:** 70% (number of people utilizing services at the given facility per information captured through the iCHF system)
- **Enrollment:** 20% (number of beneficiaries enrolled in the iCHF that live near the facility)
- **Catchment:** 10% (population of the facility's catchment area, regardless of iCHF membership)

through district accounts. At public facilities, **capitation rates are not intended to cover the whole cost of providing services as salaries and overhead costs are paid for through supply-**side financing from the government. Based on this scheme design, the iCHF is not expected to carry forward any surplus/deficit beyond the one percent from beneficiary contributions and five percent from government matching contributions set aside for reserves. We used PharmAccess data from two regions to estimate the distribution by facility type where enrolled beneficiaries of the CHF accessed health services. The breakdown was two percent **hospitals, 65 percent health centers, and 33 percent dispensaries (PharmAccess, 2017).**

Health Expenditure

A previous HP+ actuarial study forecasted total health expenditure for informal and unemployed beneficiaries in Tanzania; however, **in the absence of robust data on actual CHF health expenditures, estimating utilization rates for the iCHF poses a challenge** (HP+, unpublished). The only data available was sourced from pro-rated historic financial statements provided by PharmAccess, which indicated a per beneficiary total health expenditure of US$4.18 per year, and from **another CHF implementer, Health Promotion & System Strengthening**, which reported a US$1.77 health expenditure per beneficiary in 2017 (HPSS, 2018; PharmAccess, 2017).
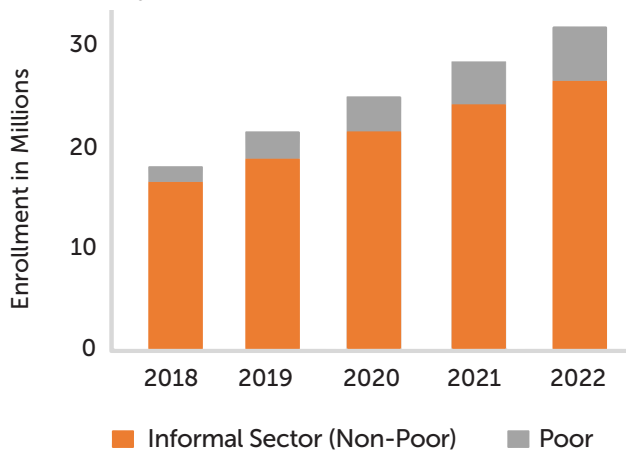
Government Financing Obligations

Lastly, HP+ quantified government obligations **in terms of matching funds and subsidies across** different enrollment scale-up scenarios. A sensitivity analysis was conducted to examine the impacts of changes to key variables such as **government matching fund per household and total government subsidy obligations in terms of percentage of the poor covered.**

Results

Under the realistic scale-up scenario, total beneficiaries enrolled in the iCHF will be 15.7 million by the end of 2018, increasing to 27.8 million by 2022 (see Figure 4).

### Figure 4. Enrollment Scale-Up under the Realistic Scenario by Sub-Group

Source: NHIF, 2017; HP+ calculations

Government Financing Obligations

Under the realistic scenario, using a baseline matching amount of TZS 30,000 (US$13) per household, total government obligations are estimated to be US$42 million in year one, increasing to US$95 million by year five (see Figure 5).

Figure 5. Government Obligations for Matching Fund and Subsidies, Realistic Scenario
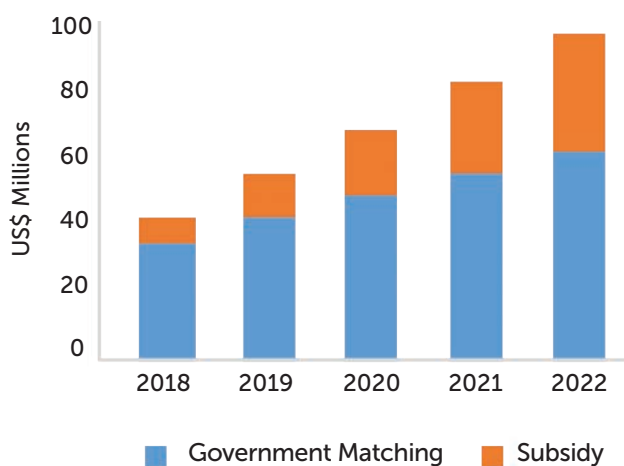
Source: MOHCDGEC, 2018a; HP+ calculations

Table 2 shows changes to government obligations for the matching fund if the baseline TZS 30,000 (US$13) contribution per household were to be increased/decreased to adjust to any modifications to premium rates. For example, increasing the match amount to TZS 50,000 (US$22) per household would cost the Tanzanian government an extra US$23 million from the year one baseline. Over time, the magnitude of the effect resulting from adjustments to the matching fund amount would increase as more households enroll in the iCHF. For example, decreasing the match amount by TZS 10,000 (US$4) would save the government US$20 million in year five, but only US$12 million in year one.

Figure 6 depicts the resources required to cover subsidy obligations, varying the percentage

Table 2. Sensitivity Analysis for Matching Fund in US$ Millions

Matching Fund per Household (TZS)	2018	2019	2020	2021	2022
10,000	$12	$14	$16	$18	$20
20,000	$23	$28	$32	$36	$41
30,000	**$35**	**$41**	**$48**	**$55**	**$61**
40,000	$46	$55	$64	$73	$82
50,000	$58	$69	$80	$91	$102

Source: HP+ calculations

Figure 6. Sensitivity Analysis on Resource Needs for Subsidy by Percentage Coverage of the Poor in 2018
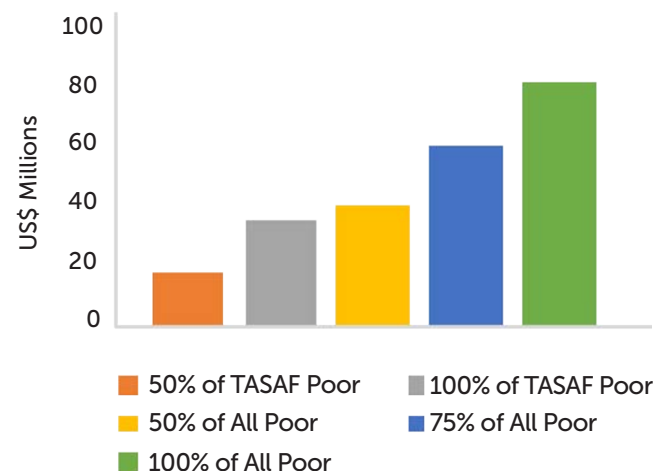
Source: MOHCDGEC, 2018a; HP+ calculations

coverage of the poor. Covering 100 percent of the poor population (15.2 million people) would cost US$85 million in year one. Covering 100 percent of the TASAF poor population (6.5 million people) would cost US$38 million in year one.

Possible Subsidy Financing Sources

It cannot be expected that the government of Tanzania alone can finance the subsidy for the poor from its tax-funded sources. The iCHF design document suggests several alternative mechanisms for financing the subsidy, including allocations from district council and/or village budgets, savings from cooperative society organizations, contributions from religious organizations, and fundraising activities targeting businesses and corporate social responsibility (CSR) programs run by private-sector firms (MOHCDGEC, 2018a). Box 4 shows estimates of the potential sizes of these revenue sources. For context, five percent of LGA own-source revenue is about US$7.8 million per year.

As the iCHF transitions from district to regional funding pools, Figure 7 shows forecasted subsidy obligations by region for year one, assuming a 100 percent subsidy coverage rate of the poor. This calculation was based on forecasted enrollment rates and poverty levels by region. The region of Tanga is expected to have the largest subsidy obligations because it had high CHF enrollment

rates, resulting from a social health protection project funded by the German development agency, combined with average poverty levels. Meanwhile, a region like Kilimanjaro, despite PharmAccess setting up its CHF model in some LGAs, is forecasted to have low subsidy obligations because the region has both low overall enrollment rates and relatively low poverty levels.

Box 4. Subsidy Financing Mechanisms

- In FY 2013/14, TZS 353.67 billion (US$154.8 million) was collected at the LGA level across 163 districts as own-source revenue intended to fund the provision of public services including, but not limited to, health (CAG, 2014).

- One private sector executive estimated that the CSR budget for a typical firm was about 0.1 percent of revenue. Another executive of a multinational corporation estimated that the CSR budget for his company was TZS 100 million (US$4,375) per year.

- The size of contributions from charitable giving and CSR programs is dependent on factors such as the state of the economy, the business operating environment, etc. According to the Tanzania Private Sector Foundation, TZS 3 billion (US$1.3 million) can be consistently relied upon to be raised at one-off fundraiser events during a period of strong economic growth.

Figure 7. Subsidy Obligations by Region in Year One
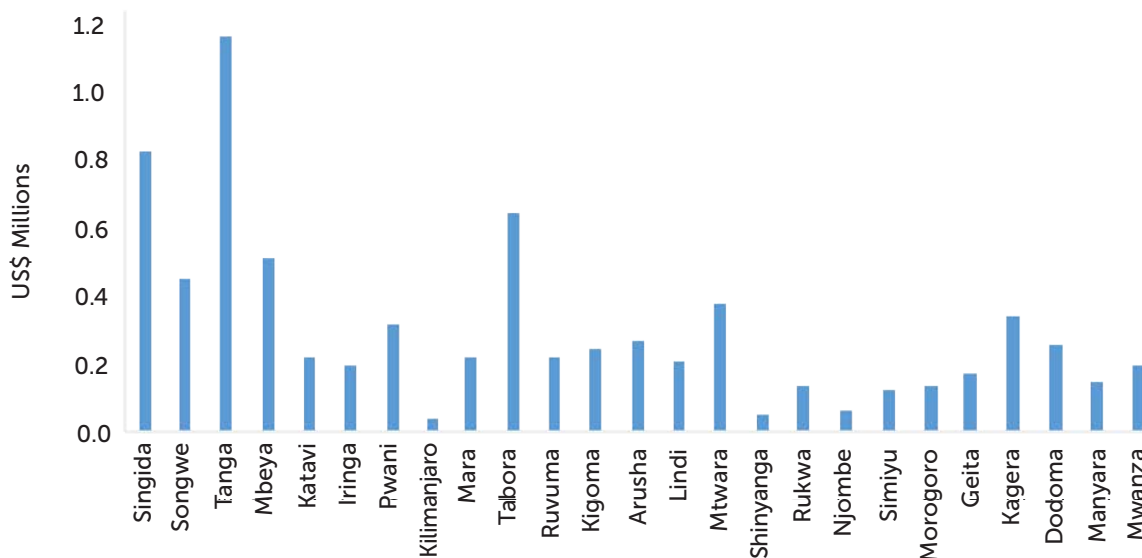
Source: NHIF, 2017; UNDP, 2015; HP+ calculations

iCHF Financial Dynamics

Figure 8 shows forecasts for the iCHF scheme income by source in 2018 and the use of those funds based on the iCHF design document under the realistic enrollment scenario, assuming 80 percent of LGAs comply with the CHF ACT provision to allocate five percent of own-source revenue to fund subsidies for the poor. Figure 8 also assume US$1.2 million raised from CSR for subsidies, but no contribution from the central government.

With regard to sustainability, the iCHF is by design intended to maintain a slight surplus of about two percent of total contribution income each year while maintaining a constant claims ratio of 80 percent, defined as health expenditure divided by contribution income.

Lastly, HP+ conducted a sensitivity analysis on the baseline assumption of six beneficiaries per household. Changing this variable has a large effect on forecasted contribution income because changing the household size is in effect changing the premium amount collected per beneficiary, which is a key driver of income. Changing household size by one person changes total income by between US$8 and US$12 million under the realistic scenario in year one.

Figure 8. Forecasted iCHF Income by Source and Use of Funds in 2018 under the Realistic Enrollment Scenario
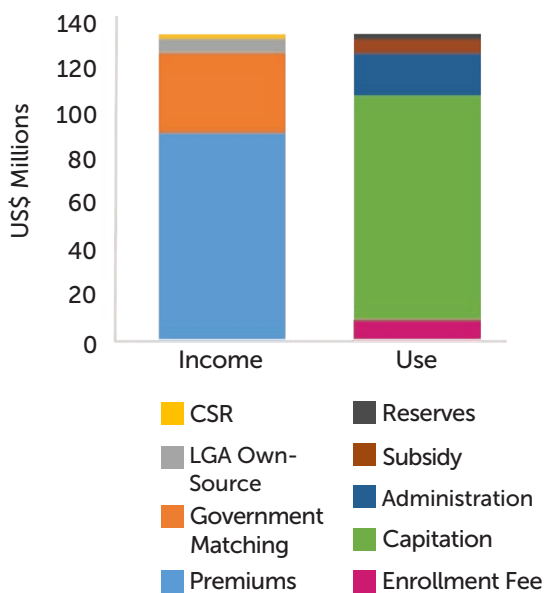
Source: MOHCDGEC, 2018; HP+ calculations

Discussion

Under the realistic enrollment scenario, the government's matching obligation is estimated to be US$35 million in 2018. While this figure is not substantial compared to its overall allocation to the health sector—nearly US$1 billion for FY 2017/18—it represents a significant increase to the matching fund allocation made in FY 2014/15, which was only about US$1 million (Lee and Tarimo, 2018). Budget allocations to the HBF in FY 2017/18 were estimated to be US$70 million, but as previously mentioned, it is unclear how much funding HBF will continue to contribute for iCHF matching funds, if any (Lee and Tarimo, 2018). Government matching funds will be critical for the sustainability of the iCHF, especially over the next few years as enrollment scales-up. Findings from this analysis can be used to advocate for future allocations for iCHF matching funds, directly from the government's budget books or other sources.

In terms of subsidies for the poor, under the realistic enrollment scenario, US$7.4 million is needed in 2018. This amount could be financed by sub-national budget allocations and CSR. But increased government contributions from the central level and LGAs toward the subsidy are critical to ensure that the needs of the most poor and vulnerable are met in the future. By 2022, subsidy obligations will increase to US$34 million under the realistic enrollment scenario.

Two issues warrant attention as the iCHF scales-up. The first is the challenge of keeping administrative and operational costs reasonable, which must remain below 11 percent of contribution income for the iCHF to be sustainable. Since its inception, the overall administrative expense ratio that PharmAccess has been able to achieve is 32 percent, which the organization's parent foundation helps to subsidize (PharmAccess, 2017). The iCHF will need to achieve economies of scale on administration costs to remain solvent as it scales-up. In comparison, the NHIF administrative expense ratio over the past five years has been about 20 percent (NHIF, 2017).

The second issue is whether iCHF capitation payments will be sufficient to finance facilities to provide necessary services. Surveys indicate that many CHF members chose to discontinue enrollment due to the inability of CHF providers to deliver basic services and the poor quality of services that were provided (Macha et al., 2014). Currently, two initiatives in Tanzania aim to incentivize improvement of quality of service delivery at public facilities. The World Bank is supporting a results-based financing approach aimed at improving levels of achievements at primary healthcare facilities, with a focus on maternal, neonatal, and child health services. A midterm review of the program showed consistent increases in quality scores across nearly all program indicators (World Bank, 2018). Meanwhile, the HBF has a direct-to-facility mechanism that links performance payments to quality of service and governance targets. It monitors 19 performance indicators including child survival rates, out-of-pocket expenditures, and incidence levels for diseases such as HIV, tuberculosis, and malaria.

More detailed data on actual health expenditure for services covered by the iCHF, disaggregated by region, is needed to determine what services can realistically be covered by the capitation rates and where cross-subsidization between regions could eventually occur. The size of funding pools and utilization may vary widely by region. Government matching funds will help to supplement contribution income from premiums, but it will be vital for the iCHF to scale-up enrollment to increase the amount of pooled resources available to adequately fund capitation payments to providers.

As Tanzania moves toward an SNHI, to help finance both the government matching fund and subsidies for the poor, cross-subsidization between the NHIF and iCHF is a logical next step. The NHIF has carried forward significant after-tax surplus since FY 2007/08. These assets total nearly US$450 million nominally (NHIF, 2017). Although there are concerns with escalating expenditure at the NHIF over the last five years, the NHIF appears to have significant assets to support the iCHF financially in the short- to medium-term

(Lee et al., 2018b). The iCHF design document mentions that cross-subsidization between regions could be possible, but does not specify how the administration of this mechanism would function. As Tanzania works to establish a SNHI, any future policy discussions on health insurance reforms should consider how decisions will affect and involve both schemes simultaneously. This discussion may include the potential for inclusion of HIV services as part of the SNHI. HP+ assessed the feasibility of this integration in a separate analysis (Lee et al., 2018a).

Africa has a poor record of voluntary participation in community-based health insurance. Whether the iCHF can be financially self-sustaining, with or without the government's matching fund, will be largely dependent upon whether enrollment can be scaled-up. The iCHF design document estimates that re-enrollment must remain at 70 percent in order to ensure an adequate pool of resources to pay for services (MOHCDGEC, 2018a). A provision to make health insurance compulsory could help to drive enrollment and coverage growth of the scheme. Results-based financing and direct-to-facility HBF mechanisms should help to improve the quality and availability of services at iCHF-financed facilities, which is critical to encourage beneficiaries to re-enroll. Both the World Bank program and the current memorandum of understanding between the Tanzanian government and HBF development partners expire in 2020. As the next iteration of these mechanisms are considered and developed, the iCHF should work alongside these interventions to put in place quality assurance mechanisms as a prerequisite for capitation. A longer-term goal for the iCHF may be to take over the role of these incentive mechanisms by strategically designing its capitation formula to motivate providers to be accountable for delivering high-quality outcomes. A longer-term policy goal for the government could be phasing out the World Bank and HBF performance-based mechanisms by 2025 and transferring responsibility for monitoring facility-based service provision performance to the iCHF.

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