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Domestic financial contributions to HIV, TB, and malaria

Ann Ithibu, Djesika D. Amendah

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Preface

Aidspan (www.aidspan.org) is an international NGO based in Nairobi, Kenya, whose mission is to be an effective watchdog organization highlighting, analyzing and influencing the transparency and effectiveness of the Global Fund to Fight AIDS, Tuberculosis and Malaria at the global and country level. Aidspan is an indispensable resource for a broad range of stakeholders – from policy makers seeking independent critique and guidance on the Fund's processes, investments and progress to grassroots organizations seeking access to Global Fund's resources.

Aidspan provides information, targeted analyses and independent commentary via its official website, reports, Global Fund Observer (GFO) newsletter, social media, and other communication channels. To receive the GFO Newsletter, go to www.aidspan.org and click on the "Subscribe to GFO Newsletter" link. To follow Aidspan on Facebook and Twitter, click here and here.

Some reports recently published by Aidspan are:

- Global Fund investments in adolescents and youth in Eastern and Southern Africa for the years 2018-2021
- Data collection and use in Global Fund grants: a multi-country report
- Involvement of Supreme Audit Institutions (SAIs) in Global Fund grants
- Value for money of Global Fund investments in HIV, TB and malaria in selected sub-Saharan countries
- Impact of Global Fund withdrawal on programs and service delivery in Bosnia and Herzegovina

Aidspan finances its work primarily through grants from governments and foundations. Aidspan does not accept funding of any kind from the Global Fund.

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Executive summary

The Global Fund to fight AIDS, Tuberculosis (TB) and malaria, which is a major financier of these three diseases globally, invests about two-thirds of its funding in sub-Saharan Africa which has the world's highest burdens of the disease epidemics.

Alongside the Global Fund, other multilateral institutions, bilateral programs, national governments, private charities and companies have spent large amounts of financial resources over the years fighting these three diseases. In recent years, donor resources to fight HIV, TB and malaria have dwindled whereas the need has either remained constant or increased; in contrast, domestic resources have increased. For instance, domestic HIV funding increased three-fold between 2006 and 2016 and now accounts for 57% of total funding in low- and middle-income countries. Health financing statistics reflect global or regional averages which can conceal large discrepancies. Thus, it is important to analyse individual countries' domestic contributions towards HIV, TB and malaria responses, especially in countries with a high burden of either of the three diseases.

We assessed domestic health financing for the year 2015, and trends in domestic financing for HIV, TB and malaria for the years 2015-2017 and 2018-2020 which correspond to Global Fund's grant implementation periods, for 13 high impact Africa countries as classified by the Global Fund. Domestic funds for health come from tax revenues, households' out-of-pocket payments, pre-payment mechanisms like insurance and other innovative financing programs.

The 13 high impact countries spent on average 7.3% of their general government expenditure on health in 2015. This average conceals wide differences: the country proportions ranged from 1.22% in Mozambique to 18.1% in Sudan.

Most countries at the notable exception of South Africa relied heavily on external funding to fund their health programs. In 2015, South Africa financed more than half (54%) of its health expenditures from domestic public sources; in contrast, the 12 other High Impact countries funded a smaller proportion ranging from 8% in Mozambique to 37% in Zambia.

In the 2015-2017 period, the sampled countries – where data was available -– spent more than $12 billion for HIV, TB and malaria from all sources (domestic, the Global Fund and other external ones). Domestic resources accounted for 16% ($1.3 billion) of total funding for HIV. For the 2018-2020 period, the sampled countries need $22 billion for the three diseases. Estimated available funding, reported by ten countries, amounted to US$11 billion (HIV), US$708 million (TB) and US$3 billion (malaria) creating a funding gap of 24% (HIV), 49% (TB) and 44% (malaria). The domestic contributions, accounting for 16% of total available funding for HIV, remained constant in 2018-2020 when compared to 2015-2017. However, they decreased slightly for TB and malaria and currently stand at 26% and 39% for those diseases respectively.

Countries can raise additional funds for health by increasing tax revenues, reallocating budget line items from low-priority expenditures, and obtaining debt relief which frees up additional domestic resources that can be invested in health. These are often difficult political processes. Countries can supplement existing resources with funds raised through innovative financing mechanisms. These mechanisms increase the revenues (such as debt swaps like Global Fund's Debt2Health), incentivize investments by other partners such as the private sector or improve health services delivery such as performance-based financing or impact bonds.

In conclusion, although countries are spending more on health, and more specifically for HIV, TB and malaria programs, the available funds are not enough to meet the needs as laid out in their national strategic plans. For countries to achieve universal health coverage and sustainability of the disease programs, they will need to raise and allocate more funding towards the health sector and to the three diseases.

Introduction

The Global Fund to fight AIDS, Tuberculosis and malaria is a major financier of these three diseases globally. It invests about two-thirds of its funding in Sub-Saharan Africa[1] where 70% of people living with HIV/AIDS[2] reside and where 25% of new TB cases occurred in 2016.[3] The Global Fund gives grants to countries based on a three-year allocation and implementation cycles. The current implementation cycle runs from 2018 to 2020 for most countries.

Substantial funds to fight those three diseases come from multilateral institutions, bilateral programs, national governments as well as private charities and companies. About $20.6 billion was available for fighting HIV in 2017 globally according to the Joint United Nations Programme on HIV/AIDS (UNAIDS).[4] About a third of that amount, $6.9 billion, was available for TB control and prevention in low- and middle-income countries (they account for 97% of the world's notified TB cases - in 2018) according to the World Health Organization (WHO).[5] The Global Fund is the single largest source of TB funding. For malaria, the WHO estimated that $3.1 billion was invested towards malaria control and prevention programs in 2017: international financing accounted for 72% of this total funding.[6] Close to half (44%) of this funding was channelled through the Global Fund.

Donor resources to fight HIV, TB and malaria have dwindled over the last few years. For instance, international HIV funding in low- and middle-income countries, after an unprecedented increase between 2000 and 2010, declined by 7% in 2016 to reach its lowest level since 2010.[7] UNAIDS warned that countries where more than 75% of HIV response is funded by donors risk catastrophic consequences if international resources reduced by even 20%.[8] In the same vein, WHO reported that international donor funding channelled to National TB programmes decreased by 18% from $1.1 billion in 2017 to $0.9 billion in 2018.[9,10]

Globally, in contrast, domestic funding has grown over the years. For instance, domestic HIV funding increased three-fold between 2006 and 2016 now accounting for 57% of total funding in low and middle-income countries.[11]

These health financing numbers reflect global or regional averages which can conceal large discrepancies. Thus, it is important to analyse individual countries' domestic contributions towards HIV, TB and malaria responses, especially in countries with high burden of either one of the three diseases. Most of those countries receive substantial investments from the Global Fund and are classified as High Impact countries by the Global Fund. High impact countries have "very large portfolios, 'mission critical' disease burden";[12] in other words, they receive multiple grants, have complex operations or other challenges. Twenty-five countries are high impact as classified by the Global Fund: fifteen are in Africa and ten in Asia.[13]

This paper aims to assess current domestic health financing, and trend in domestic financing for HIV, TB and malaria in high impact Africa countries. Specifically, this paper assesses:

- Domestic contributions to the health sector in the 13 high impact African countries
- Domestic contributions to HIV, TB and malaria programs in the 13 high impact African countries for the 2015-2017 and 2018-2020 implementation periods of the Global Fund grants.

Methods

Countries included

This study covers 13 African countries classified as high impact countries in the African region by the Global Fund in 2018:

- **High-Impact Africa 1**: Cote d'Ivoire, Democratic Republic of the Congo (DRC), Ghana, Nigeria, South Africa, Sudan
- **High-Impact Africa 2**: Ethiopia, Kenya, Mozambique, Tanzania, Uganda, Zambia, Zimbabwe

The Global Fund invests nearly half of its monies in these 13 countries for the 2017-2019 allocation period ($4.8 billion). These 13 countries together with the 10 high-impact Asian countries – Bangladesh, Cambodia, China, India, Indonesia, Myanmar, Pakistan, Philippines, Thailand, Vietnam – account for 70% of the global burden of HIV/AIDS, TB and malaria.

The study covers different years/periods:

- A single year 2015 for the general health sector financing – 2005 is the latest year for which data are available, and
- Two periods of three years for HIV, TB and malaria financing: 2015-2017 and 2018-2020. These years are grant implementation periods for majority of the sampled countries. Note that the Global Fund also has a three-year allocation period which is slightly different from the implementation period. The corresponding allocation periods are 2014-2016 and 2017-2019

Data sources

We used information from several sources:

- Reports by technical partners such as the WHO and UNAIDS
- WHO Global Health Expenditure Database (http://apps.who.int/nha/database)
- The World Bank Data Bank (https://data.worldbank.org/)
- Grant application documents submitted by countries to the Global Fund
- Other previous relevant studies.

Analysis

We analysed several indicators:

a. **Domestic general government health expenditure (GGHE-D) as a percentage of general government expenditure (GGE) (%):** This is a measure of the public expenditure on health from domestic sources as a share of total public expenditure. It indicates the priority of the government to spend on health from own domestic public resources. Domestic sources include revenue as internal transfers and grants, transfers, subsidies to voluntary health insurance beneficiaries, non-profit institutions serving households (NPISH) or enterprise financing schemes as well as compulsory prepayment and social health insurance contributions.[14]

b. **Domestic general government health expenditure (GGHE-D) as a percentage of gross domestic product (GDP):** This is the share of current domestic general government resources spent on health in the economy proxied by the GDP.[15] This indicator measures the fiscal space for health.[16]
c. **Financing sources as a percentage of the current health expenditure (CHE)**: domestic resources including private resources such as households, and external resources finance current health expenditures. The analysis assesses contributions of the different sources as proportions of the current health expenditure (CHE).
    - ***Domestic general government health expenditure (% of CHE)***: The share of current health expenditures funded from domestic public sources for health. It indicates how much resources the public sector has dedicated to health.[17] Domestic public sources are as described in a. above. They do not include external resources spent by governments on health.
    - ***External health expenditure (% of CHE)***: The share of current health expenditures funded from external sources. These are composed of direct foreign transfers and foreign transfers distributed by government encompassing all financial inflows into the national health system from outside the country.[18] External sources either flow through government schemes or are channelled through non-governmental organizations or other schemes.
    - ***Domestic private health expenditure as (% of CHE):*** The share of current health expenditures funded domestically by the private sector. Private sector funds stem from households (out-of-pocket payments), corporations and non-profit organizations. Such expenditures can either be prepaid to voluntary health insurance or paid directly to healthcare providers. This indicator describes the role of the private sector in funding healthcare relative to public or external sources.[19]
    - ***Out-of-pocket expenditure (% of current health expenditure)***: The share of current health expenditure funded from out-of-pocket payments by households. Out-of-pocket expenditure refers to spending on health at the point of service and time of need by households. Out-of-pocket expenditure is a sub-set of the domestic private health expenditure.

(We obtained the three definitions and descriptions from relevant datasets obtained from the World Bank Data)

When appropriate, we compared our findings with health expenditure benchmarks such as the Abuja Declaration which was a commitment made by African Heads of State, in 2001, to allocate at least 15% of their annual budgets to improve the health sector.[20] The Abuja Declaration was reaffirmed in 2013 which indicates the continuous relevance of the Declaration.

We used the United States Dollar (USD) as the main currency in this report. For grants denominated in Euros, we used a conversion rate of 1 Euro = 1.1675 US Dollars.

Findings

The 13 countries vary in economic status, population size, and disease burden (Table 1). The GDP per capita ranged from US$416 in Mozambique to US$6161 in South Africa in 2017.[21] In terms of World Bank income classification, six countries are low-income; six are lower-middle-income; while only one, South Africa, is an upper-middle-income.

The population size of the 13 countries varies considerably. The most populous countries are Nigeria (191 million) and Ethiopia (105 million) while the least populous are Zimbabwe (17 million) and Zambia (17 million respectively) as at 2017.[22]

HIV prevalence ranged from 0.2% in Sudan to 18.8% in South Africa, in 2017.[23] Nine of the thirteen countries have a high burden of TB and all but one – South Africa – are malaria high-burden countries.

The Global Fund has invested more than US$15 billion in the 13 countries since its inception; investments range from US$544 million in Cote d'Ivoire to US$2.2 billion in Ethiopia.[24]

Table 1: Key characteristics of the 13 countries

Country	Population (2017)*	GDP per capita (current US$) (2017)*	HIV prevalence (%) (2017)**	TB high burden country	Malaria high-burden country	Global Fund investments to date[1] in USD ***
Low-income countries						
Democratic Republic of Congo (DRC)	81,339,988	457.84	0.7	Yes	Yes	1,576,085,711
Ethiopia	104,957,438	767.56	0.9	Yes	Yes	2,186,837,722
Mozambique	29,668,834	415.71	12.5	Yes	Yes	987,718,027
Tanzania	57,310,019	936.33	4.5	Yes	Yes	2,005,484,098
Uganda	42,862,958	604.04	5.9	No	Yes	1,129,973,731
Zimbabwe	16,529,904	1079.60	13.3	Yes	Yes	1,397,919,467
Lower middle-income countries						
Cote d'Ivoire	24,294,750	1662.44	2.8	No	Yes	543,730,729
Ghana	28,833,629	1641.48	1.7	No	Yes	809,614,638
Kenya	49,699,862	1507.81	4.8	Yes	Yes	1,087,698,411
Nigeria	190,886,311	1968.55	2.8	Yes	Yes	2,077,738,585
Sudan	40,533,330	2898.54	0.2	No	Yes	573,189,114
Zambia	17,094,130	1509.79	11.8	Yes	Yes	1,148,565,384
Upper middle-income countries						
South Africa	56,717,156	6160.73	18.8	Yes	No	872,055,532

* World Bank (06 December 2018) ** UNAIDS AIDSinfo (06 December 2018) ***Global Fund website (06 December2018)

Countries spent on average less than 8% of their domestic public resources on health

Governments that prioritize the health sector are more likely to allocate more resources to it. Prioritization is reflected in the proportion of the general government expenditure directed towards the health sector. The 13 countries spent an average of 7.4% of government expenditure on health. This proportion is lower than the global average (9.9%) and those of lower-middle-income (8.2%) and upper-middle-income (10.5%) countries, but higher than that of low-income countries (5.8%). The proportion ranged from 1.22% in Mozambique to 18.1% in Sudan. All but one country – Sudan – failed to meet the minimum target of 15% agreed on by the African Union Heads of States in the Abuja Declaration. In fact, ten of the 13 countries spent less than 8% (figure 1).

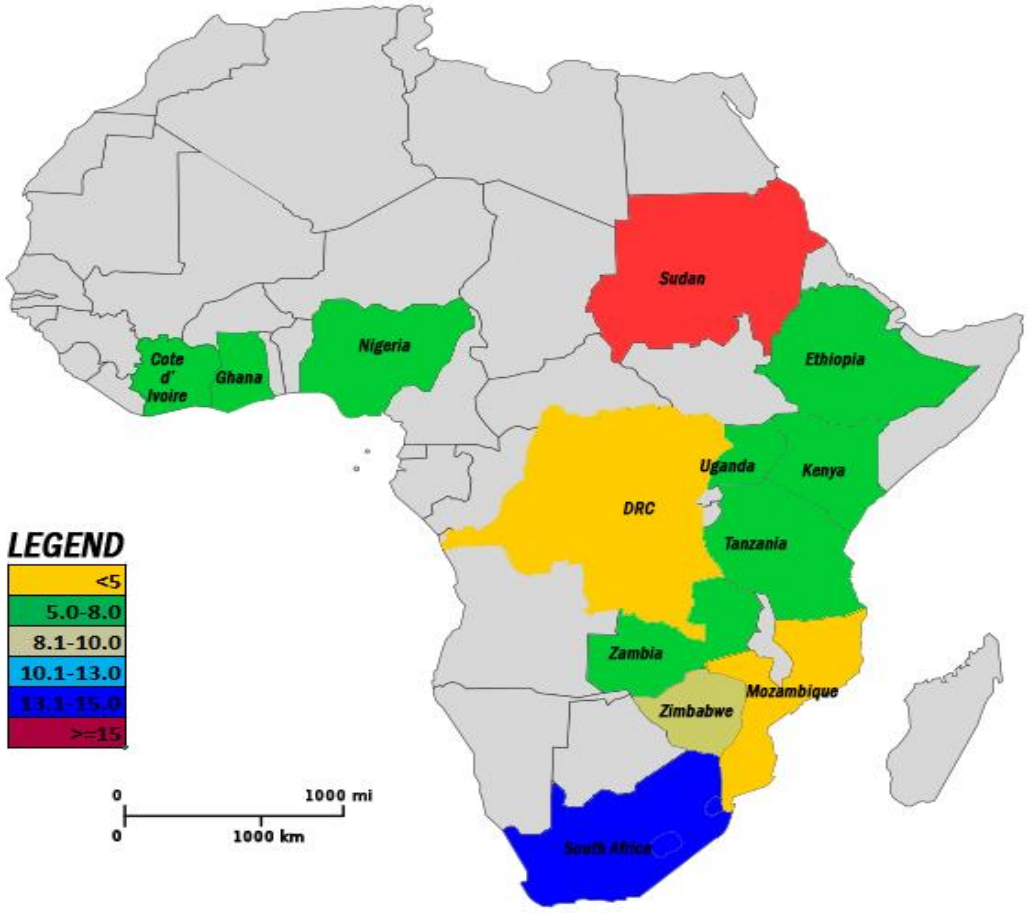

Figure 1: Domestic government health expenditure as a percentage of the general government expenditure for 13 countries

The proportion of the GDP spent on health also reflects countries' level of priority for the health sector. The 13 countries spent an average of 1.65% of their GDP towards health. The proportion of the GDP spent on health was highest in South Africa (4.39%) and lowest in Mozambique (0.43%) in 2015. All the countries are below the recommended minimum 5%.[25]

Three main sources of funding for health

Funds for national health expenditures come from three main sources: domestic public sources, external sources (through government or NGOs), and domestic private sources including households (out-of-pocket) and private health insurance.

Other than South Africa, most countries relied heavily on external funding

South Africa financed more than half of the current health expenditure (CHE) (54%) from domestic public resources in 2015; this percentage is slightly higher than the global average (52%). In four other countries – Zambia, Tanzania, Ghana and Kenya – about one-third of the CHE came from domestic government sources: 37%, 35%, 35% and 33% respectively. Government contribution to the CHE was lowest in Mozambique (8%), Uganda (13%), DRC (16%) and Nigeria (17%) (figure 2a).

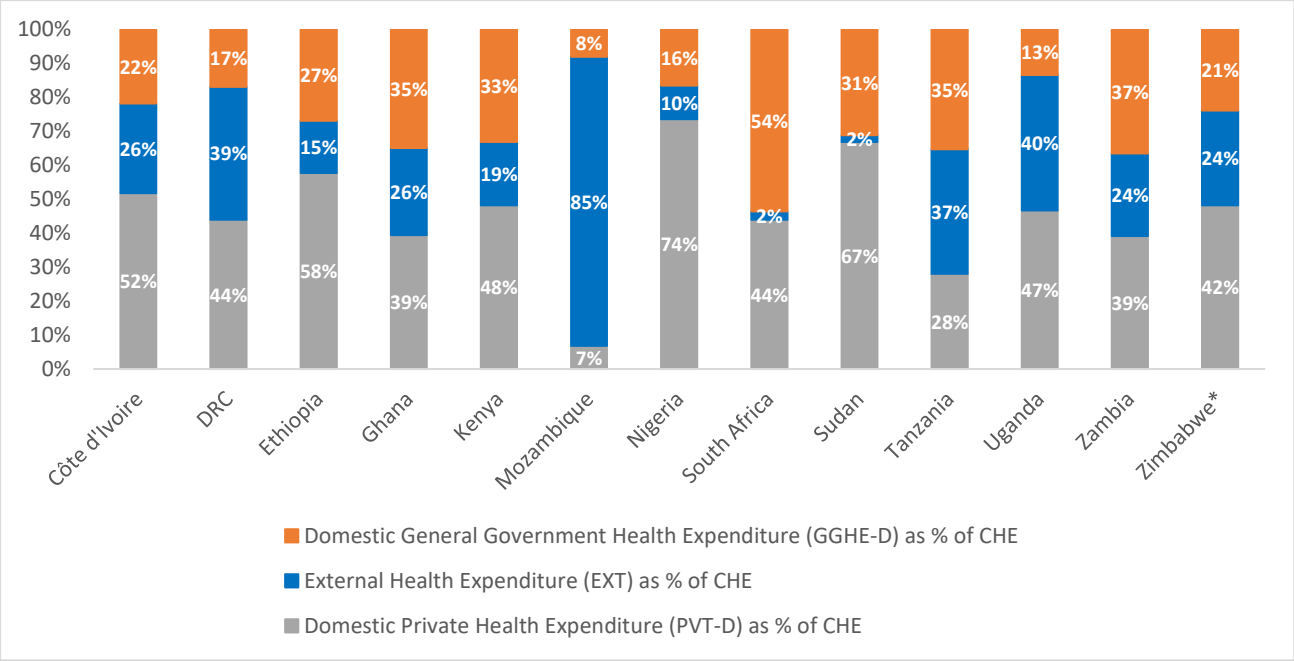

Figure 2: Percentage of health financing by source (2017)

(CHE: Current health expenditure)

**The figures downloaded from the WHO Global Health Expenditure Database on funding sources for Zimbabwe and DRC do not add up to 100%; no explanation was provided*

Most of these countries rely heavily on foreign assistance to fund the health sector. For instance, in Mozambique, 85% of the CHE came from external sources. Though not as extreme, Uganda, DRC and Tanzania, all obtained more than a third of the CHE from international funding: 40%, 39% and 37% respectively. Both South Africa and Sudan obtained only 2% of the CHE from external resources.

Domestic private sources accounted for more than one-third of the CHE in 12 of the 13 countries – Mozambique was the exception. Private funding was highest in Nigeria (74%) and Sudan (67%) and lowest in Mozambique (7%). Out-of-pocket spending (by households), as one of the sources of private funding, was the hugest contributor to the CHE: it was highest in Nigeria (72%), followed by Sudan (63%), and lowest in Mozambique (7%) and South Africa (8%) (figure 2b). South Africa's out-of-pocket (OOP) spending was well below the upper-income country (UIC) average of 32%. Similarly, Mozambique is well below the lower income countries average of 44%. High out-of-pocket payments act as a barrier to

access to health services and are often associated with catastrophic and impoverishing spending.[26] [27]

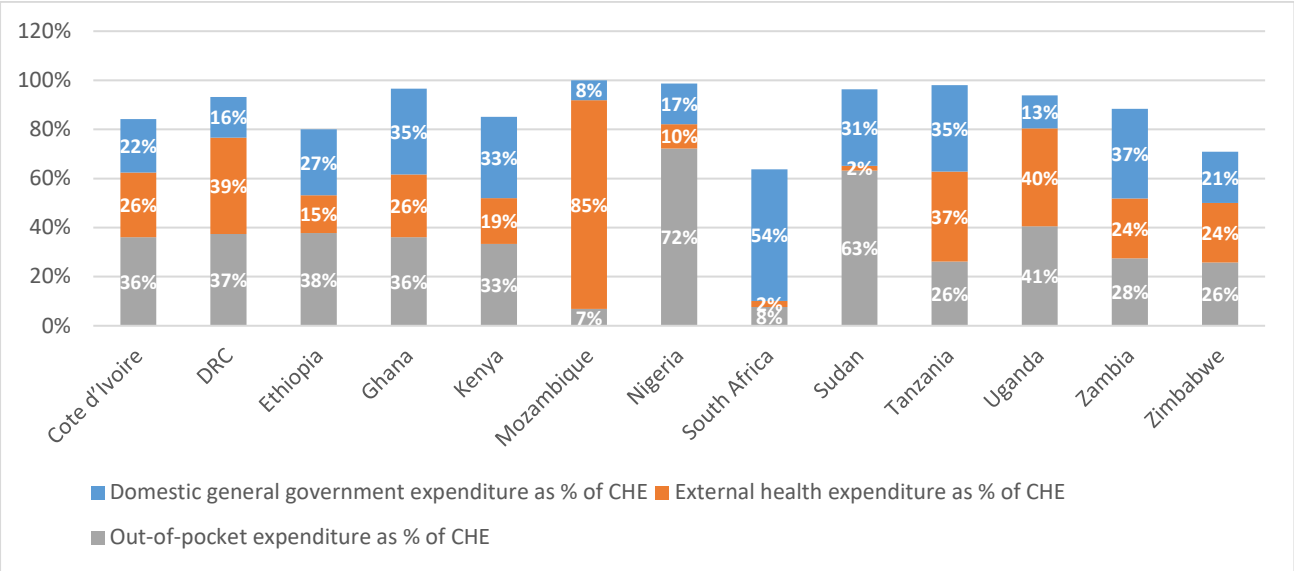

Figure 3: Government, external, and out-of-pocket (OOP) expenditure in percentage of health financing (2017)

(CHE: Current health expenditure)

**The funding sources do not add up to 100%, as the out-of-pocket expenditure is a sub-set of domestic private expenditure, except for Mozambique whose private health expenditure is solely from out-of-pocket expenditure*

Countries raised more than $12 billion for HIV, TB and malaria responses for the 2015-2017 period

The sampled countries raised more than $12 billion for HIV, TB and malaria from domestic sources, the Global Fund and other external sources in the 2015-2017 period.

Domestic resources financed less than a quarter of the HIV national strategic plans

Nine countries raised approximately $8.2 billion from domestic sources, the Global Fund and other donors to finance their HIV national strategic plans in the 2015-2017 period. Data for Uganda and Nigeria was unavailable so the two countries were excluded from this analysis. Of this amount, $1.3 billion (16%) came from domestic sources. This average percentage conceals wide discrepancies: Mozambique covered 3% domestically, both DRC and Zimbabwe 4%, while Sudan 23% of their total HIV funding (Kenya's proportion of domestic resources was the highest at 48%; however, this high proportion has been excluded from this section because the country did not report funding from external sources for 2015 and 2016).

The Global Fund accounted for 24% of the total funding for HIV in those countries while all other donors (excluding the Global Fund) accounted for 60%. Global Fund contributions to HIV expenditures were highest in Sudan (68%) and lowest in Zambia (15%). In eight of these countries excluding Sudan, these lower Global Fund proportions may be due to existing funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), one of the largest sources of HIV financing alongside the Global Fund. Other major international donors are the United Kingdom (UK), the World Bank, the Bill and Melinda Gates Foundation, UNAIDS, the United Nations Children's Fund (UNICEF) and World Health Organisation (WHO).

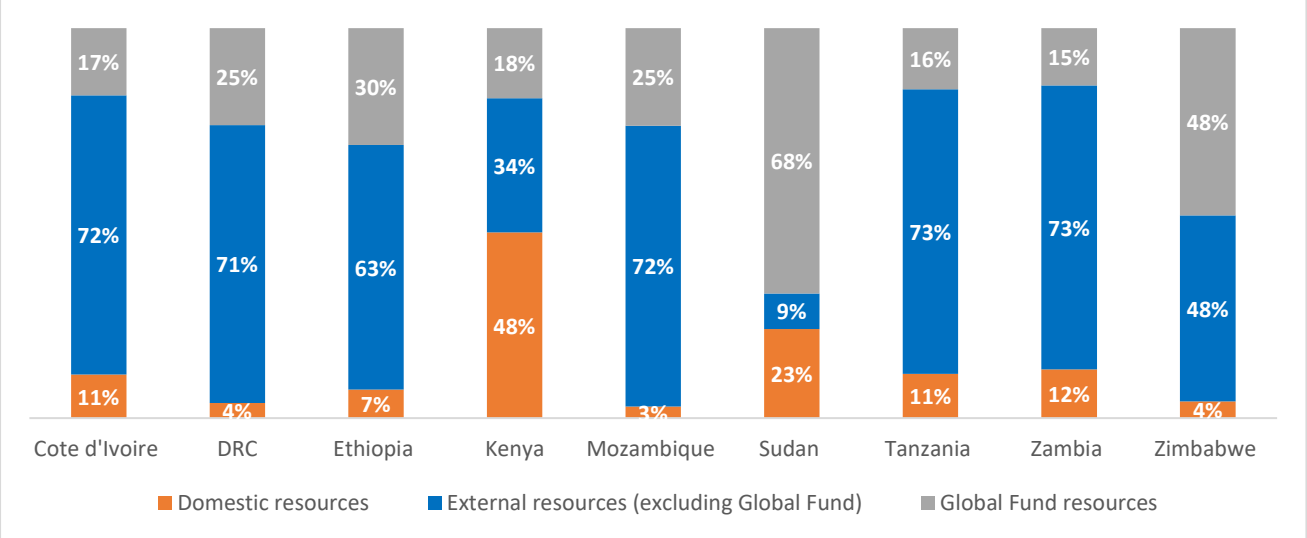

Figure 4: Percentage of HIV funding by source for the 2015-2017 implementation period

Note:

1. Uganda did not report funding from the Global Fund, hence was excluded from this analysis
2. By the time of this analysis, the Board was yet to approve Nigeria's TB/HIV funding request[28]
3. Kenya did not report funding from external sources for 2015 and 2016.

The Global Fund was the single largest source of TB funding

Six countries– Cote d'Ivoire, DRC, Kenya, Mozambique, Sudan and Zimbabwe - raised approximately US$ 385 million from all sources for the TB response for the 2015-2017 period, based on their reported data. **The Global Fund was the single largest source of TB funding for those six countries accounting for 48% of the available funding.** Domestic resources accounted for 36% (US$ 137 million) of the total available funding. Domestic contributions, as a percentage of the total funding, were lowest in DRC (0%) and highest in Zimbabwe (53%). The Global Fund's share of TB programs funding ranged from 33% in Zimbabwe to 88% in DRC. Other donors such as the United States Government (US Government), World Bank, WHO and UNAIDS accounted for 16% of total TB funding.

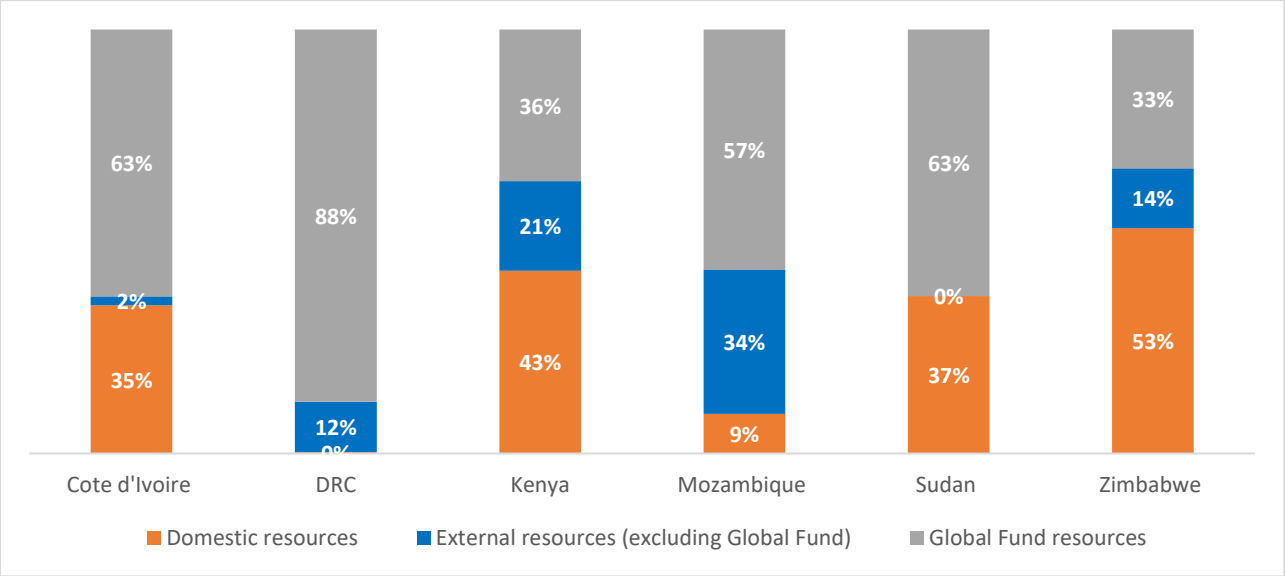

Figure 5: Percentage of TB funding by source for the 2015-2017 implementation period

Note: Ethiopia, Uganda, Tanzania and Zambia did not report Global Fund spending for the 2015-2017 period and were excluded from this analysis

Domestic resources accounted for more than a third of available malaria funding

As is the case with TB and HIV, international sources funded most of malaria programs. Based on data reported by seven countries, they raised approximately US$3.6 billion to fight malaria between 2015 and 2017. Of this total amount, domestic resources accounted for 36% (US$1.3 billion). However, Nigeria strongly influenced this total amount as it accounted for 70% of the total domestic resources. Domestic contributions were below 10% in four of the seven countries – Kenya (4%), Zimbabwe (4%), Uganda (6%) and Tanzania (7%) – and above 40% in the remaining countries – Sudan (43%), Cote d'Ivoire (45%) and Nigeria (52%).

The Global Fund accounted for 38% of total malaria funding in the 2015-2017 period; its contributions ranged from 26% (Kenya) to 58% (Zimbabwe). Other donors, who included the

US Government, UNICEF, United Kingdom, the World Health Organization (WHO) and Clinton Foundation, accounted for 26%.

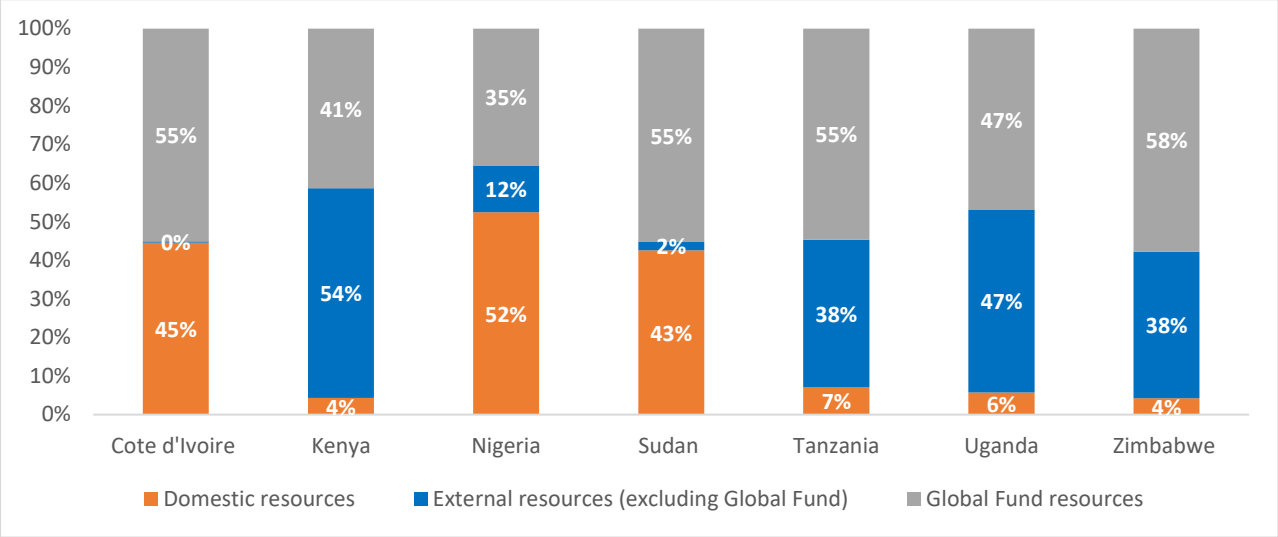

Figure 6: Percentage of malaria funding by source for the 2015-2017 implementation period

Note:

1. DRC did not report any data for the period 2015-2017
2. Ethiopia, Mozambique and Zambia did not report Global Fund spending and were excluded from the analysis

* Percentages do not add up to 100% due to rounding of percentages

Almost half of the funds needed to fight HIV, TB and malaria for the period 2018-2020 had not been secured yet

The sampled countries will require in total $15.3b, $1.4b and $6.1b for the 2018-2020 period to fully fund the HIV, TB and malaria national strategic plans, respectively. Estimated available funding, reported by ten[1] countries, amounted to US$11.6 billion for HIV, US$708 million for TB and US$3 billion for malaria creating a funding gap of 24%, 49% and 45% for HIV, TB and malaria respectively (Table 2).

Table 2: Funding needs and availability for the 2018-2020 period for the sampled countries

Disease component	Total funding needs for the strategic plan	Total anticipated resources (including Global Fund)	Funding gap	
			US$	%
HIV (n=10)	15,273,732,460	11,554,366,788	3,592,839,967	24%
TB (n=10)	1,390,247,055	708,224,717[a]	682,022,338	49%
Malaria (n=10)	6,122,419,686	3,037,578,047[b]	2,778,452,555	45%

Note: For grants denominated in euros, a conversion rate of 1 euro = 1.1675 US dollars was used

n represents the number of countries included in the analysis:

- HIV and TB: Cote d'Ivoire, DRC, Ethiopia, Kenya, Mozambique, Sudan, Tanzania, Uganda, Zambia and Zimbabwe
- Malaria: Cote d'Ivoire, Ethiopia, Kenya, Mozambique, Nigeria, Sudan, Tanzania, Uganda, Zambia and Zimbabwe

[a] Global Fund allocation for Ethiopia TB grant unavailable
[b] Global Fund allocations for Tanzania and Zambia malaria grants unavailable

Domestic contributions remain largely unchanged for HIV programs in the 2018-2020 period when compared to 2015-2017. Of the total estimated available funding for the period 2018-2020, domestic contributions for HIV accounted for 16% (unchanged in the in the 2015-2017 period). However, domestic contribution decreased by 10% for TB (26% in 2018-2020 vs. 36% in 2015-2017) and for malaria (39% vs. 36%). These proportions may change as more funding (or saving) becomes available and reallocations of funds occur (Table 3).

Table 3: Comparison of sources of funding for the 2015-2017 and 2018-2020 implementation periods

Sources of funding	Disease component	2015-2017	2018-2020
HIV	Domestic resources	16%	16%
	External resources (excluding Global Fund)	60%	65%
	Global Fund resources	24%	18%
TB	Domestic resources	36%	26%
	External resources (excluding Global Fund)	16%	34%
	Global Fund resources	48%	40%
Malaria	Domestic resources	36%	39%

[1] Countries vary depending on the disease component: For HIV/TB, Nigeria is excluded; for malaria, DRC is excluded; both on the basis of lack of data

	External resources (excluding Global Fund)	26%	25%
	Global Fund resources	38%	36%

Countries had raised at least half of their total HIV funding needs

Total funding needed to finance the HIV national strategic plan was highest in Kenya ($3.7 billion) followed by Uganda ($2.5 billion) and lowest in Sudan ($29 million) (Figure 6). All the countries had raised at least half of the needed funding. The funding gap was lowest in Mozambique (4%) and highest in Cote d'Ivoire (49%).

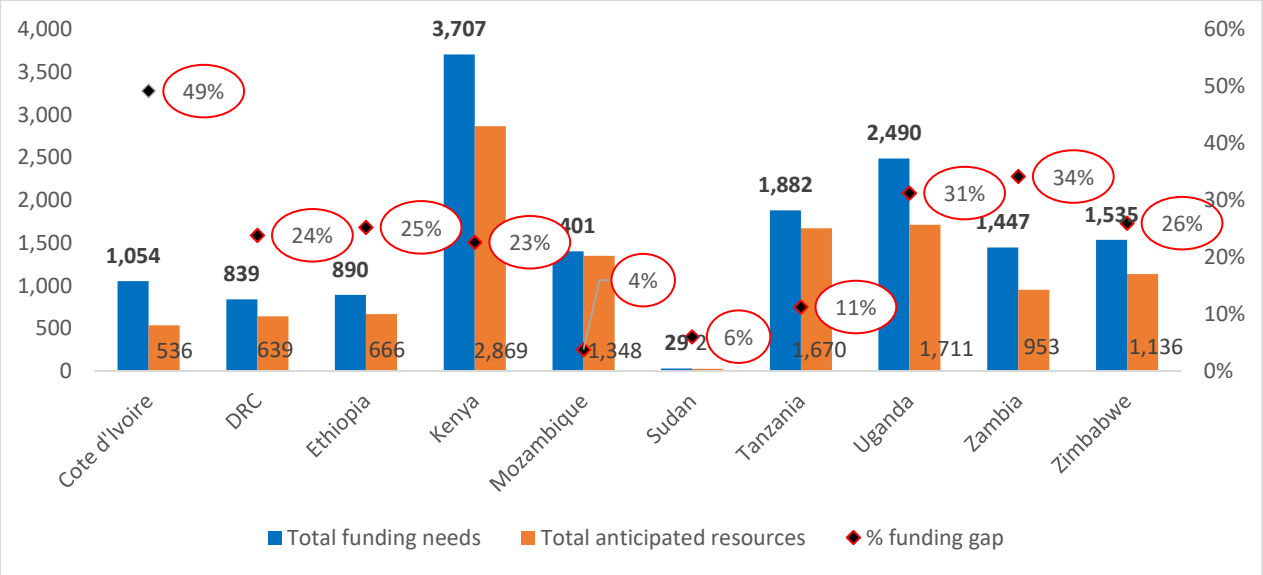

Figure 7: HIV total funding needs, available resources and funding gaps for the period 2018-2020

Of the total available funding, domestic contributions ranged from 3% in Mozambique to 35% in Sudan (figure 7). Global Fund contributions ranged for 6% in Kenya to 60% in Sudan. Funding from other external resources was notably low (5%) in Sudan whereas in other countries it ranged from 55% in Zimbabwe to 75% in Uganda.

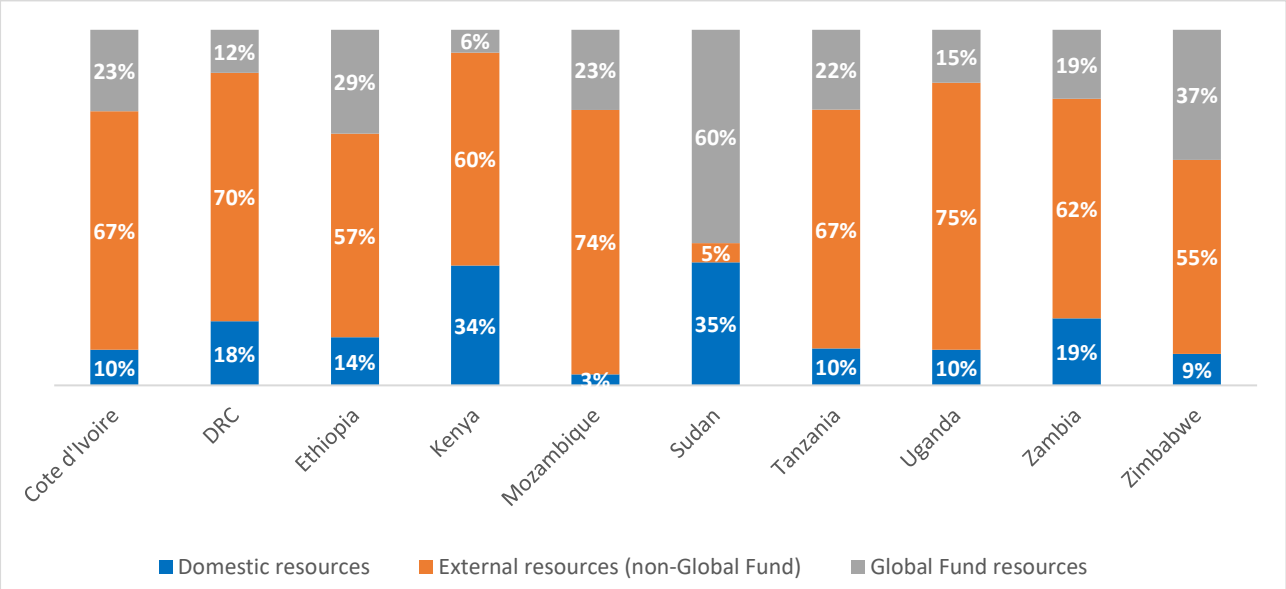

Figure 8: Percentage of HIV funding by source for the 2018-2020 implementation period

Five countries were yet to raise over half of their total TB funding needs

Total funding needed to finance the TB national strategic plan in the 2018-2020 period was much lower than the funding requirements for HIV. Kenya had the highest funding need at $282 million closely followed by Ethiopia ($269 million); and, just like for HIV, Sudan had the lowest need ($25 million) (Figure 8). Five of the ten countries were yet to raise more than half of their total funding needs: Cote d'Ivoire (55%), Ethiopia (69%), Uganda (52%), Zambia (52%) and Zimbabwe (73%). Mozambique had the lowest gap in funding (5%).

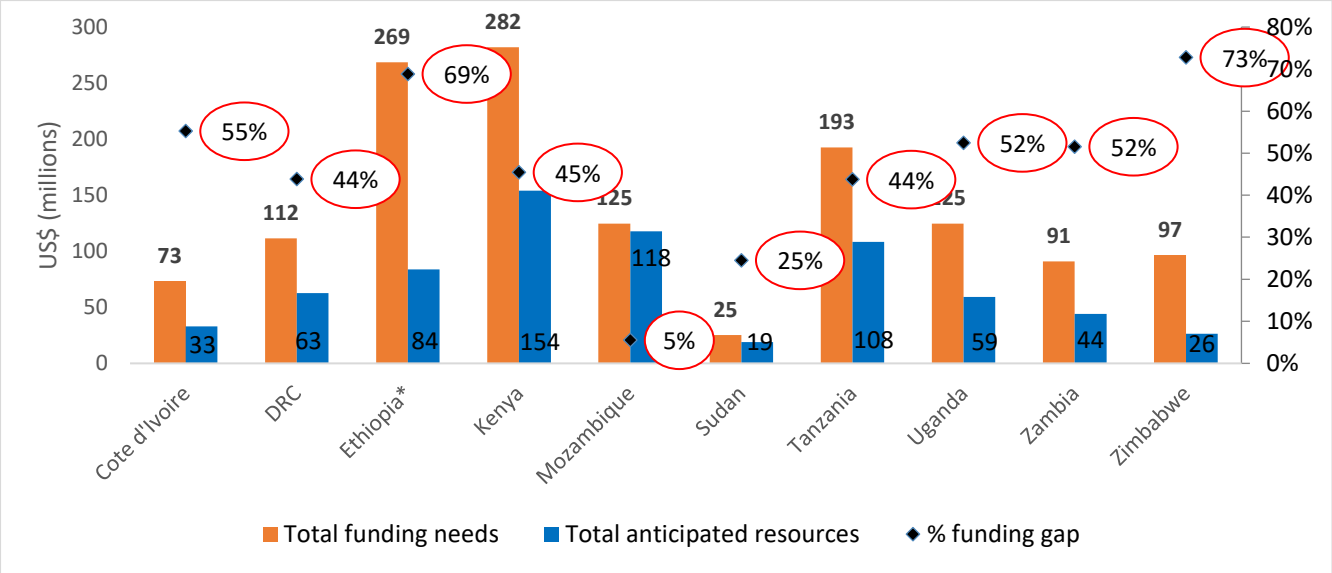

Figure 9: TB total funding needs, available resources and funding gaps for the period 2018-2020

*Ethiopia did not report Global Fund resources for TB for the 2018-2020 period

Of the total available TB funding, domestic contributions ranged from 0% in DRC to 54% in Cote d'Ivoire (figure 9). Global Fund contributions ranged from 23% in Zambia to 90% in DRC – Ethiopia did not report Global Fund resources for TB for the 2018-2020 period. Financing from other external sources was notably low in Cote d'Ivoire (2%) and Sudan (0%).

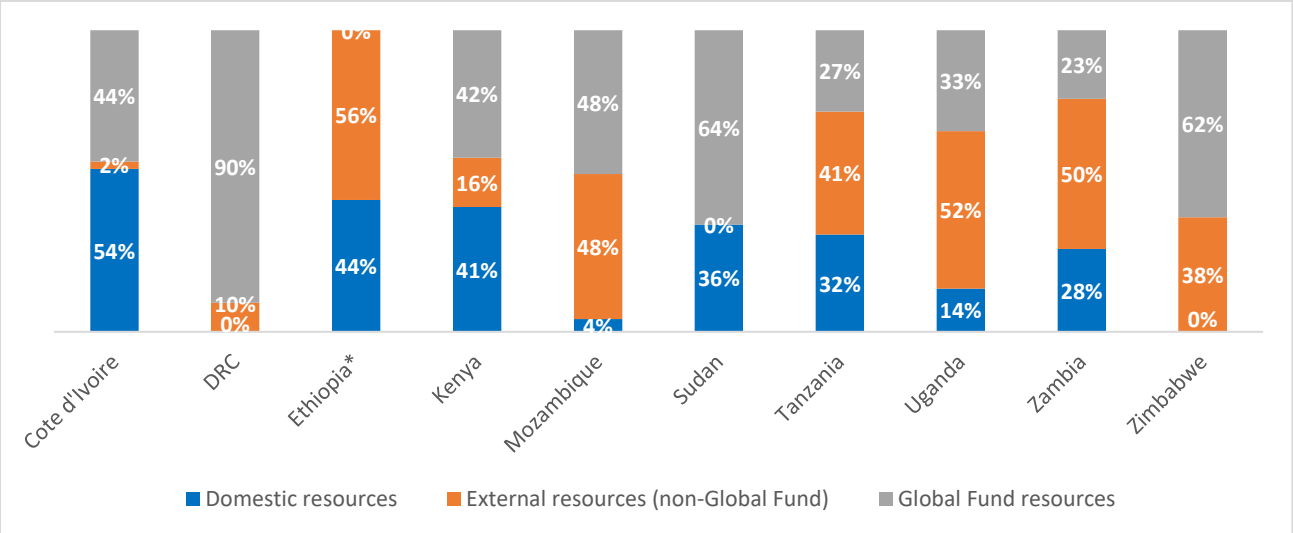

Figure 10: Percentage of TB funding by source for the 2018-2020 implementation period

*Ethiopia did not report Global Fund resources for TB for the 2018-2020 period

Sudan and Nigeria to finance more than 60% of the malaria response through domestic resources

Nigeria will require $2.2 billion to finance the malaria national strategic plan, the highest of the 10 countries owing to its population size and malaria transmission. Total funding needs for the remaining countries ranged from $151 million in Zimbabwe to $712 million in Cote d'Ivoire (figure 10). Tanzania and Zambia had the highest funding gaps at 76% and 64% of the total funding needs, respectively; this gap can be explained by the fact that the total available funding computed did not include the Global Fund contributions for this 2018-2020 period as those figures were missing.

Among the countries with complete data, three were yet to raise over half of the total funding required to finance the malaria strategic plan: Nigeria (57%), Cote d'Ivoire (54%) and Uganda (51%). Sudan had the lowest funding gap ($10 million, 4%)

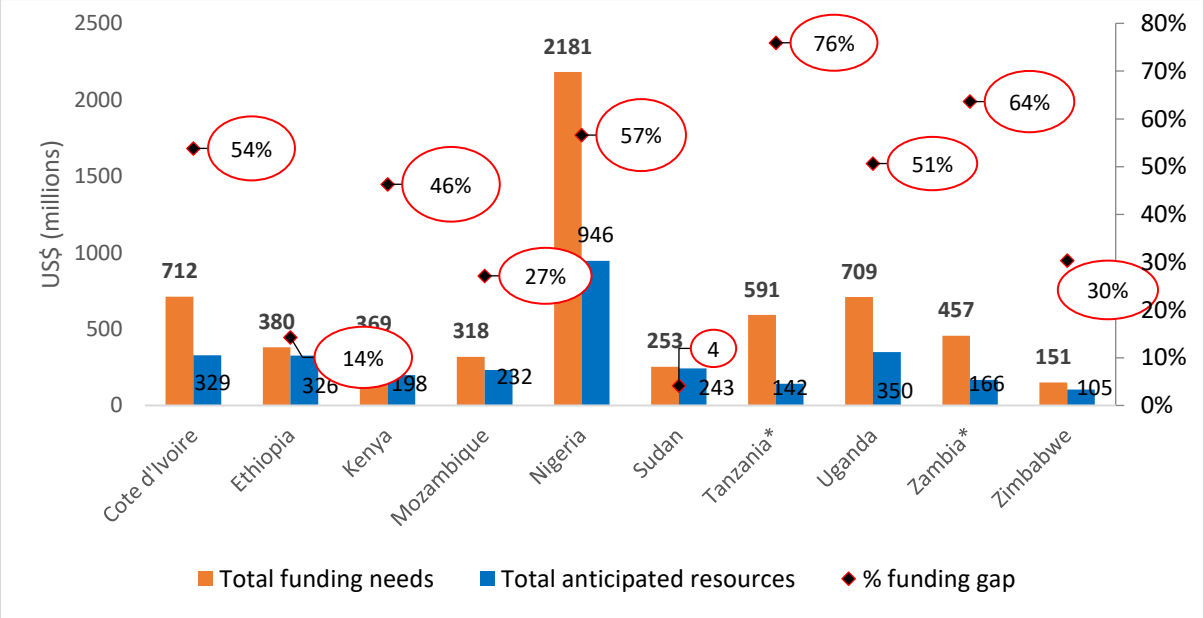

Figure 11: Malaria total funding needs, available resources and funding gaps for the period 2018-2020

*Tanzania and Zambia did not report Global Fund resources for TB for the 2018-2020 period

Of the total amount of available funding, domestic contributions were highest in Nigeria (67%) followed by Sudan (63%), and lowest in Zimbabwe (6%) whereas Global Fund contributions ranged from 32% in Nigeria to 65% in Mozambique (figure 11). Financing from external sources was notably low in Nigeria (1%) and Sudan (3%) and highest in Kenya (48%).

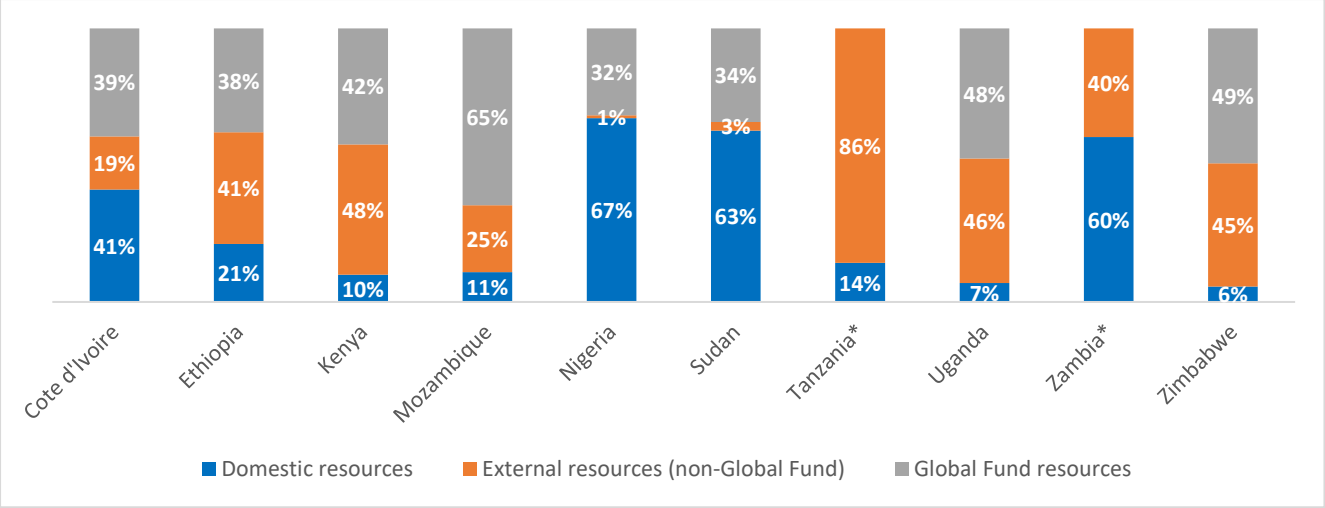

Figure 12*: *Percentage of malaria funding by source for the 2018-2020 implementation period

Discussion

This study illustrates that high impact countries rely heavily on international donor funding to finance the health sector, and specifically HIV, TB and malaria programs. Six of the 13 sampled countries funded more than a quarter of the health expenditure through external resources in 2015. In countries such as Nigeria and Sudan, out-of-pocket payments were the highest source of funding for health expenditures. Notably, domestic financing was lowest for HIV as compared to TB and malaria: domestic resources accounted for only 16% of total available funding in the sampled countries; for both TB and malaria, domestic resources accounted for 36%, each, of the total available funding.

Without sustained or prepaid sources of funding such as general government budget or health insurance, countries are left to depend on external sources of funding or households to pay for their own health. Countries can raise additional funds for health by increasing tax revenues, reallocating budget line items (from low-priority expenditures) and obtaining debt relief (which frees up additional domestic resources that can be invested in health).[29] However, in their research by Remme M. et al. argued that even if lower-income sub-Saharan African countries improved their revenue generation, reallocated resources to the health sector and maximized efficiency in line with their economic capacity, they would still not be able to generate sufficient public resources to cover their HIV responses in the medium-term[30], hence, emphasizing the critical role of international financing. Still, international financing is not enough to meet the funding gaps; it levelled out in recent years - after it reached its peak in 2013 - and is less likely to increase significantly.[31]

International partners funding the health sector in many countries can encourage governments to increase their health expenditures. For instance, the Global Fund, through the co-financing policy (and previously, the counterpart financing and willingness to pay policies), requires countries to progressively increase government expenditures to the health sector, in general, and to the three national disease programs from one allocation period to the next. The Global Fund recommends various sources of co-financing including government revenues, government borrowings, social health insurance, debt relief proceeds (including Debt2Health arrangements), and private sector contributions from domestic corporations that finance national strategic plans. As a result of the co-financing requirements, the Global Fund has reported increased domestic funding by its recipient countries by 41% ($6 billion) from 2012-2014 to 2015-2017[32] and by more than 40% from 2015-2017 to 2018-2020 period for already approved grants which make up about 75% of total allocations[33].

Increasing government allocation to health, raising tax revenues or even government borrowings are often difficult political processes; innovative financing mechanisms can provide the much-needed support by supplementing the available domestic resources. The Global Fund has been working with its partners to develop and implement innovative funding mechanisms in Global Fund recipient countries. Such innovative mechanisms either: increase revenues – such as Product (RED) and debt swaps-; incentivize investments – co-financing with development partners, blended financing with development partners -; or improve delivery of services – such as results- or performance based financing and outcomes-based financing including impact bonds.

Of notable success is the Debt2Health initiative – a debt swap managed by the Global Fund aimed to raise funds for the health sector. Under the debt swaps, the debtor forgives/writes

off a debt on the condition that the country will use at least part of the freed-up funds to programs approved by the Global Fund. The initiative has so far been used in agreements between Germany and Indonesia, Cote d'Ivoire, Egypt and Pakistan; and between Spain and Cameroon, DRC, Ethiopia and Indonesia. It has successfully raised $198 (€170) million additional funding to the Global Fund since its launch in 2007[34]; these amounts are modest when compared to the amount of funding the Global Fund has raised since 2007.

The Global Fund is yet to fully explore other innovations such as loan buy-downs, and social and development impact bonds. The loan buy-downs refer to the 'strategic combination of grants with government-sourced loans, resulting in a highly concessional financing package'.[35] Countries such as Botswana and Guatemala have benefitted from the loan buy-down arrangement.[36,37]

Impact bonds are a type of outcomes-based financing. They allow private investors to invest in social causes and generate financial returns.[38] The Global Fund is supporting the design and the use of impact bonds in South Africa and Fiji.[39] Under the impact bonds, private investors provide upfront capital to service providers to deliver an intervention or program to a population in need; funds are repaid by the outcome funder upon realisation of the agreed upon targets.[40 41] Outcome funders are the government in social impact bonds or a third-party organization – such as a donor, development agency or philanthropic foundation - in development impact bonds. Impact bonds are more ideal for preventative programs which have potential to generate savings, have well-defined target populations and have quantifiable impacts/outcomes rather than treatment interventions.[42]

Countries have also come up with various innovative ways of financing HIV responses. AIDS Trust Funds are an example of these innovative mechanisms. The Zimbabwe AIDS Trust Fund, established in 2000, raised US$85.2 million between 2008 and 2012 from a 3% tax levied on formal sector employers and employees; funds were earmarked for ART programmes (50%), prevention (10%) and program administration and support (40%).[43] Three countries—Uganda, Tanzania and Kenya—have now set up the AIDS Trust Fund emulating the Zimbabwean model.

Other innovative forms of financing include public-private funding, milestone-based payments, seed funding or dedicated taxes or levies, remittances and diaspora bonds, sovereign wealth funds, and guarantees.

Indeed, there is a huge opportunity and need for innovative financing to augment existing domestic and international financing for health. So far, the innovative financing mechanisms and instruments have raised modest amounts of funding when compared to total amounts raised towards the three diseases. Many of the mechanisms and instruments, despite the potential benefits, remain largely unexplored in the health sector particularly in sub-Saharan Africa. Those that have worked are based either on debt conversion or taxes or levies.[44]

Countries need to create an enabling political, policy and legal environment to promote the uptake and sustenance of the various mechanisms and to mitigate the associated risks. Risks include negative impact on the poor due to new taxes or levies, unrealistic objectives,[45] unintended consequences[46 47], economic crisis[48], weak domestic political or regulatory climates[49] and budgetary restrictions for donor countries[50].

The increased resources from domestic, traditional donors, and innovative financing mechanisms will prove critical not only for the three diseases discussed in this report but also for achieving universal health coverage which ensures populations access to quality health services that they need at all stages of primary, secondary and tertiary healthcare without experiencing financial hardship.

Conclusion

Domestic funding for health has increased significantly in recent years. However, there remains a huge gap in funding for health, and more specifically for the HIV, TB and malaria programs. To enhance sustainability of health programs and universal health coverage, countries should increase their contributions to the health sector and the disease programs; and leverage the existing innovative financing mechanisms which are managed by Global Fund and its partners. Countries and international partners should also pay more attention to the efficiency in the use of the available resources; savings can go a long way in decreasing the funding gaps and increasing the impact.

Further studies are required to explore the trends of domestic financing for health, including factors that promote its increase or lead to decreases in the amounts of funding. Other studies can be conducted to assess where the domestic resources are invested and to assess the value for money.

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