

Financing Sub-sectors: HIV, Nutrition and Malaria

Background Paper



International Conference on Financing Healthcare in Africa:
Challenges and Opportunities

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In this paper we examine financing and health system related issues of three major health programmes: HIV, nutrition and malaria. These programmes address significant population health challenges and therefore receive special attention from global, often vertically financed and implemented, programmes. We start by describing the public health challenge they represent, sketch the broad financing picture, before zooming in on health financing and systems issues specific to each of the sub-sectors.

HIV

In 2014, 25.8 million people in sub-Saharan Africa were living with HIV, accounting for almost 70% of people living with HIV worldwide. 1.4 million people were newly infected in sub-Saharan Africa in 2014. The number of new infections in 2014 was 41% lower than in 2000 and the pace at which new infections in the region are declining has accelerated in recent years.

Since 2004, when the number of AIDS deaths peaked, the annual number of AIDS-related deaths has declined by 42%, reaching 1.2 million deaths globally. Declines in AIDS-related deaths have been especially pronounced in a number of high-prevalence countries. Since 2010 AIDS-related deaths have declined by 58% in South Africa and by 52% in Rwanda.

The fall in AIDS-related deaths is having profound positive effects on health outcomes and demographic trends. In South Africa life expectancy rose from 52 years in 2005 to 61 years in 2014, and AIDS-related deaths as a proportion of overall mortality dropped from 51% in 2005 to 31% in 2014.

Building on these successes but recognising that HIV remains an important threat to public health, UNAIDS recently adopted a new target: 'ending the AIDS epidemic by 2030'. The new target is that by 2030 95% of people living with HIV/AIDS will know their status, 95% of HIV positive people will receive antiretroviral therapy and 95% of people receiving antiretroviral therapy will have viral suppression.

This 'Fast Track' strategy proposes a rapid acceleration of HIV prevention and treatment programmes in order that by 2030 these efforts will result in less than 200,000 annual new adult HIV infections and would produce benefits of more than US\$ 3.2 trillion—extending beyond 2030. The focus of the efforts are global but are concentrated on the 30 countries responsible for more than 89% of the world's new HIV infections, the bulk of which are in Sub-Saharan Africa.

The Fast Track targets require a large deviation from current programmatic and expenditure trends, particularly in sub-Saharan Africa. Current investments in HIV in low and middle income countries will reach USD 22 billion in 2015 with a rise in resources in recent years largely driven by domestic investments by low and middle income countries. International spending on HIV largely remained stable since 2010.

However, to reach the Fast Track targets, current spending levels are inadequate, and an additional USD 12 billion and USD 8 billion is required by 2020 and 2030, respectively. Sub-Saharan Africa will require the largest share of global AIDS funding: USD 16 billion by 2020.

The HIV response in Sub-Saharan Africa faces several major challenges:

1. The funding landscape for HIV is set to dramatically change over the coming 15 years. The share of public spending on HIV rises as countries become richer. In low-income SADC countries,

for example, public spending accounts for 20% of total spending on HIV; this is 73% for upper-middle income SADC countries. Almost a mirror-image, the share of donor dependency decreases as income rises. Whereas this trend is observed across countries at the aggregate, important differences between countries exist. Not all low and middle income countries receive HIV development assistance in line with their comparative financial needs to address the epidemic; and not all low and middle-income countries allocate public spending to HIV in function of the contribution of HIV to the national disease burden. As the relative share of today's funding sources for HIV will change over time, with the share of public spending increasing, and as most African countries are in a process of epidemiological transition, there is a need to draw up detailed HIV financing strategies at country level to ensure that adequate funding is available.

- 2. The Ending AIDS in 2030 'Fast Track' approach sets a steep funding challenge, but current HIV financing strategies will not generate enough resources to meet the Fast-Track targets.** Figure 1 shows the required resources to fund the HIV/AIDS Response in all of the 15 SADC countries. Figure 2 shows the funding gap: the difference between the resources required, and those available if no additional funding strategies are developed. Missing 'Fast Track' targets is not desirable from a human welfare perspective, but also risks jeopardising the growth prospects of African economies. This in turn sets a clear agenda for both ministries of health and finance: to in a collaborative way identify strategies to ensure that HIV programmes are delivered as planned.
- 3. The specificity of the Fast Track resource needs is that they are 'frontloaded', require an increased funding in the short term, to deliver an effective (in terms of HIV incidence, morbidity and mortality) and cost-efficient approach over the long term.** This suggests that the need to develop HIV funding strategies that mobilise enough resources in the short term is urgent, as the alternative is undesirable from both a population health and financial perspective.
- 4. HIV funding strategies that generate enough resources to finance an effective HIV service delivery system are relying on a combination of the following funding sources: re-prioritization of public spending towards HIV, increased efficiency of HIV service delivery, and increased fiscal space for HIV.**
 - a. Re-prioritisation: public spending for HIV should be in line with the contribution of HIV to the total disease burden in the country
 - b. HIV service delivery should be made more efficient, delivering more results with less resources
 - c. Pending increased fiscal space from general tax reform, African governments can increase fiscal space for HIV in the short run through innovative financing mechanisms (see Paper 6) or borrowing¹, and earmark that fiscal space to HIV.

1 The case for borrowing for HIV relies on the observation that the HIV funding gaps observed in most countries do not suffer from a lack of fiscal space, but from an inadequate distribution of that fiscal space over time. As economies grow over time countries will have enough resources to fund HIV programme. However, the logic of the Fast Track approach is to front-load investment, with higher investment up to 2020. Countries could therefore consider to engage in debt-financing HIV programmes, if their debt-sustainability situation would suggest that is prudent to do. This would likely be with the support of the international community, and organisations such as the Global Fund, UNAIDS, the World Bank and the EU are engaged in such mechanism.

Figure 1: Total HIV/AIDS Resource Needs in SADC (M USD) and by Income Status (as % GDP)

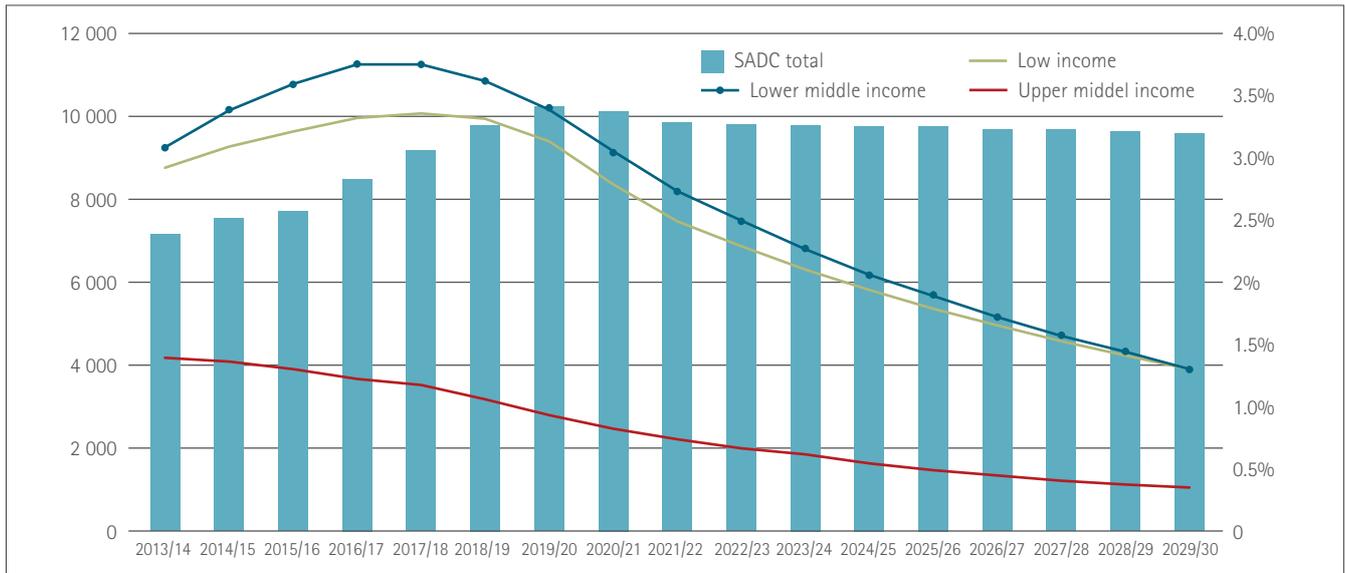
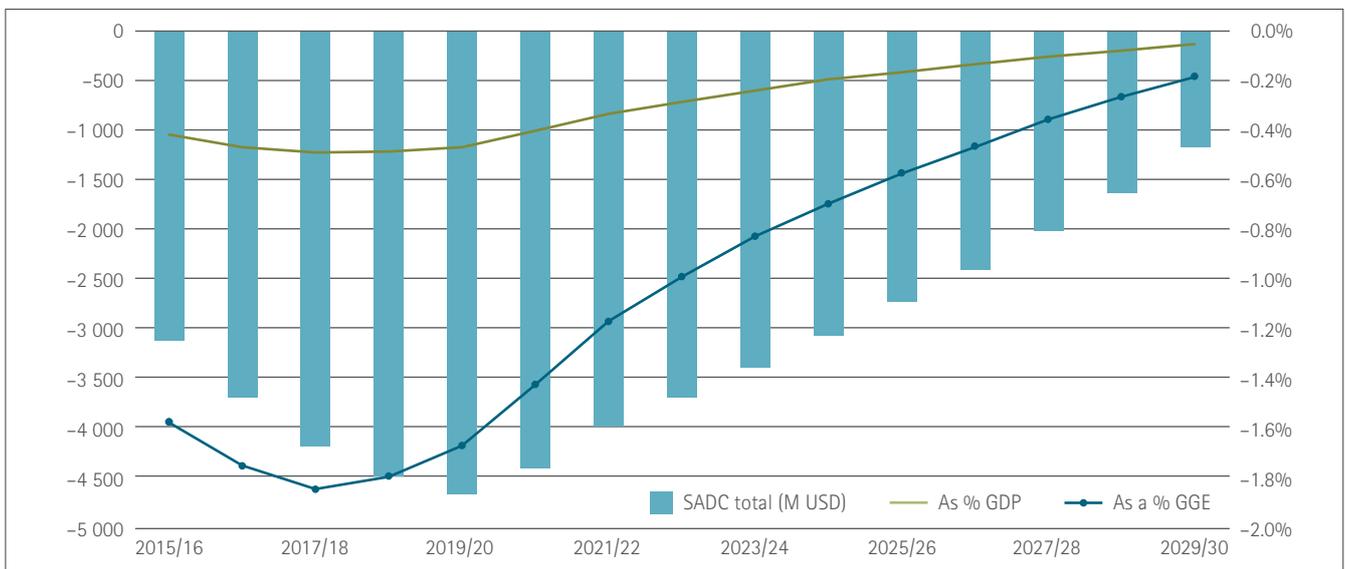


Figure 2: SADC Regional HIVAIDS Resource Gap M USD and as percentage of GDP and National Budget



5. **Some African countries will not be able to find enough resources within their economy to adequately fund effective HIV responses.** These are most likely low-income countries with a significant HIV disease burden. These countries should make a strong case to the international donor community to receive increased financial aid for HIV.

6. **HIV cannot be conceived in isolation from wider health system reforms, especially universal health coverage.** In the previous paper (Challenges in financing health sectors in Africa) we discussed the challenges (and opportunities) associated with vertical health programmes. Although each country individually should assess the relative merits of further integrating HIV within the wider health system, universal health coverage, which increasingly takes a predominant place in national health policies (see Paper 4), makes a strong case for integration of HIV and health services, at least in terms of benefit package development. The basic benefit package underpinning UHC specifies which health including HIV services constitute population

entitlements, which will be offered to the entire population with financial protection. HIV services should be taken into account in those countries where UHC is put in place. This includes countries where social health insurance is being rolled out.

In summary, HIV constitutes an important threat to both population welfare and economic development for countries with generalised epidemics. Current funding strategies will not generate enough resources to adequately address the epidemic. However, most countries could take fiscal policy initiatives to fill the HIV funding gap, through a combination of creating additional fiscal space (through innovative financing mechanisms) and earmark revenue to HIV, re-prioritization of public spending to HIV in line with the contribution of HIV to the disease burden, and technical efficiency savings.

Achieving Ending AIDS 2030 is not the sole responsibility of the Ministry of Health or the agencies coordinating the HIV response. Because of its welfare and economic impact, HIV

BOX 1: MORE HEALTH FOR THE DOLLAR – EFFICIENCY SAVINGS PUT MORE PEOPLE ON ART TREATMENT IN SOUTH AFRICA

South Africa has reformed its ART procurement process to increase competition among suppliers and improve transparency. Savings amounted to ZAR 4.7 billion (US\$ 640 million) between 2011 and 2012 allowing the Government to treat twice the number of people. The new drug procurement system achieved a 53% overall reduction of ARV costs.

Source: UNAIDS (2013). Efficient and Sustainable HIV responses: Case Studies on country progress, pg. 11

constitutes a national high-level policy objective. This then sets an agenda for collaboration between Ministries of Finance and Health, with AIDS coordinating agencies, to develop a long-term HIV funding strategy as part of the UHC financing strategy. Ministry of Health should also identify areas where efficiency savings can be made, suggest concrete key-performance indicators to track their implementation, making the HIV service delivery system more efficient and effective. In return, Ministries of Finance should, when efficiency-enhancing reforms are carried out, increase public spending on HIV, in line with the long-term HIV funding strategy.

Nutrition

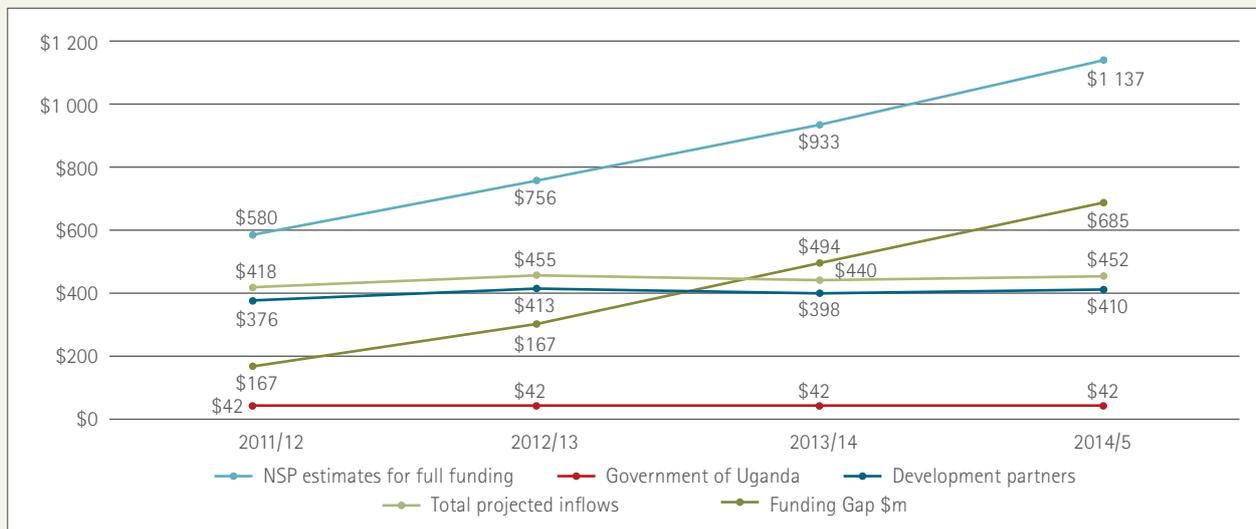
Malnutrition affects one in three people on the planet and it is estimated that undernutrition accounted for 45% or 3.1 million deaths in children under the age of five in 2013. The multiple burdens of malnutrition means it can take many forms such as poor child growth, micronutrient deficiency and adult

BOX 2: POLICY CHALLENGE – REDUCING THE HIV FUNDING GAP IN UGANDA

Uganda experiences a generalised HIV epidemic and has the highest rate of adult (15-49) HIV prevalence in East Africa. HIV prevalence has dropped from a high of 18.5% in 1992, to 7.3% in 2013 but remains higher than that of neighbouring countries – Kenya (6%), Tanzania (5%), Rwanda (2.9%) and Burundi (1.3%).

Since 2011, donor and government funding for HIV has not been increasing (see Figure 3), and yet the country faces an ever-increasing resources requirement. According to the Uganda National Strategic plan (NSP), the HIV funding gap in Uganda has increased by nearly 300% since 2011.

Figure 11: Uganda HIV Funding Gap under a Full Funding Scenario



Research suggests that if the government intervenes by scaling up treatment and prevention of HIV, the negative economic impacts of HIV/AIDS (that include an increasing cost of production due to rising wages, declining GDP growth rates and the rising domestic debt as share of GDP) are reduced (Kabajulizi & Ncube 2015). However, doubts about the effectiveness and the efficiency of the HIV response leads to unwillingness of key stakeholders such as the MoF to increase public spending on HIV, also in light of already high spending levels. Secondly, scaling up the response will have to be predominantly financed out of domestic resources (including efficiency savings). Yet, efficiency savings are notoriously complex to achieve, and they take time to filter through to the budgeting process.

Sources: Kabajulizi, J., Ncube, M. (2015). The economy-wide impact of HIV/AIDS and the funding dilemma in Africa. BSG Working paper series; Uganda National Strategic Plan for HIV/AIDS 2011/12-2014/15 (revised) (2012); HIV AND AIDS Uganda Country Progress Report (2013)

BOX 3: CROSS-SECTORAL COMPLEXITY – THE BREADTH OF SOURCES OF NUTRITION FUNDING IN TANZANIA

A recent Performance and Expenditure Review (PER) on nutrition in Tanzania highlights the complexity of coordinating nutrition funding. The PER identified four classes of funding – government (13.3%), donors (12.8%), Civil society organisations (CSOs) (44.7%) and government independent agencies (29.2%).

Within government alone, six nutritional sector lead ministries were identified (Ministry of Health and Social Welfare (MoHSW); Ministry of Agriculture Food Security and Cooperatives (MAFC); Ministry of Education and Vocational Training (MoEVT); Ministry of Water (MoW); Ministry of Community Development, Gender and Children (MCDGC) and Ministry of Livestock Development and Fisheries (MLDF)), while no less than 35 DPs also provided funding.

The policy environment was no less complicated, with 13 nutrition-specific policies, strategies and plans and another 13 nutrition sensitive policies. The result was considerable misalignment between the national nutrition strategy (NNS) priorities and the nutrition funding allocation as shown in Table 2 below.

Table 2: Nutrition Resources Allocation Alignment to National Priorities in Tanzania

Strategies	NNS Plan %		Nutrition Allocation	
	2011/12	2012/13	2011/12	2012/13
Accessing quality nutrition services	82%	80%	42%	34%
Advocacy & BCC	4%	4%	3%	4%
Coordination & partnerships	3%	2%	0%	0%
Institutional & technical capacity for nutrition	1%	1%	0%	2%
Legislation for a supportive environment	3%	3%	48%	37%
Mainstreaming nutrition into national and sectoral plans & programs	2%	2%	0%	2%
Research, monitoring and evaluation	0%	3%	4%	17%
Resource mobilisation	5%	5%	3%	5%
Total	100%	100%	100%	101%

While the NNS strategy proposes nearly 80% of funding to be allocated towards accessing quality nutrition services, less than half was allocated to this strategy. Similarly, the NNS strategy proposes 3% to be allocated towards legislative support, but in 2011 for example, nearly half the nutrition allocation in Tanzania was towards legislative support. This multi-sector, multi-player nature of nutrition has led to a lack of clear point of accountability and it was found that coordination in the sector was generally weak at national level and almost non-existent at lower levels.

overweight. The WHA global targets for 2025 on nutrition and the SDG target to end malnutrition by 2030 require a substantial increase in funding for nutrition interventions as well as embedding actions within key sectors.²

There is substantial evidence on the economic benefits of investing in nutrition. The Copenhagen Consensus concluded that "even in very poor countries such as Ethiopia and using very conservative assumptions, each dollar spent reducing chronic undernutrition has a \$30 payoff", placing nutrition interventions at the top of the list of most worthwhile development investments. Other evidence suggests that it is estimated that in 40 low and middle-income countries, the returns of scaling-up nutrition interventions results in a benefit-cost ratio of 16:1.^{3,4}

Despite this evidence, the 2013 Lancet Maternal and Child

Nutrition Series put the global annual financing gap for nutrition around \$10 billion. This is based on scaling-up up to 13 nutrition-specific interventions from current coverage levels to full coverage of the target population in the 36 countries with the highest burden of undernutrition.⁵

At the June 2014 Nutrition for Growth Summit, pledges were made for an additional \$4.1 billion in new money for nutrition-specific interventions (those that address malnutrition direction) over a period of 7 years up to 2020 and a further \$19 billion for nutrition-sensitive investments (those that have an impact on nutrition indirectly). It is however unclear how these funds will be channelled to developing countries and part of it is expected to be raised through match funding. A global debate on new financing mechanisms for nutrition is ongoing and it is expected that more details will emerge as we approach the Rio 2016 N4G Summit next June, including on the Global Financing Facility in Support of Every Woman Every Child (GFF), the Power of Nutrition, and UNITLIFE.^{6,7}

2 International Food Policy Research Institute. 2015. Global Nutrition Report 2015: Actions and Accountability to Advance Nutrition and Sustainable Development. Washington, DC. <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/129443/filename/129654.pdf>, and WHO 2014 <http://www.who.int/mediacentre/factsheets/fs178/en/> and http://www.who.int/nutrition/topics/nutrition_globaltargets2025/en/

3 Copenhagen Consensus 2012, <http://www.copenhagenconsensus.com/copenhagen-consensus-iii/outcome>

4 IFPRI (2015)

5 Lancet (2013) and Horton et al (2010)

6 Lewis (2014). Nutrition Aid Architecture. Results UK

7 IFPRI (2015)

BOX 4: CATEGORISATION OF NUTRITION-SPECIFIC AND NUTRITION-SENSITIVE INTERVENTIONS

Nutrition-specific interventions are those 13 high-impact nutrition actions as described in the 2013 Lancet Series on Maternal and Child Nutrition 2013:

1. Breastfeeding promotion and support
2. Complementary feeding promotion (provision of food is outlined in intervention 12)
3. Hand-washing with soap and promotion of hygiene behaviours
4. Vitamin A supplementation
5. Therapeutic zinc supplements
6. Multiple micronutrient powders
7. Deworming
8. Iron-folic acid supplements for pregnant women
9. Iron fortification of staples
10. Salt iodisation
11. Iodine supplements
12. Prevention or treatment of moderate malnutrition in children 6–23 months of age
13. Treatment of severe acute malnutrition

Nutrition-sensitive interventions are those with other primary objectives but where the activity reflects a conscious effort to improve nutrition status. The SUN Movement uses the UNICEF conceptual framework for actions to achieve optimum foetal and child nutrition development. They include the following:

- Agriculture: Making nutritious food more accessible to everyone, and supporting small farms as a source of income for women and families;
- Clean Water and Sanitation: Improving access to reduce infection and disease;
- Education and Employment: Making sure children have the energy that they need to learn and earn sufficient income as adults;
- Health Care: Improving access to services to ensure that women and children stay healthy;
- Support for Resilience: Establishing a stronger, healthier population and sustained prosperity to better endure emergencies and conflicts; and
- Women's Empowerment: At the core of all efforts, women are empowered to be leaders in their families and communities, leading the way to a healthier and stronger world.

The Scaling-Up Nutrition (SUN) network is identified as key institution to raise awareness, channel funds and provide support to countries in their efforts to address malnutrition.

Several major challenges in funding nutrition programme can be foreseen:

1. **Financing for nutrition first faces a challenge to clearly define the area of relevance.** The causes of malnutrition

include factors that most people would generally associate with nutrition (e.g., lack of micronutrients) as well as factors that affect the broader context of life and health (e.g., lack of access to water and hygiene). There is broad consensus that nutrition interventions can be classified into nutrition-specific (or more 'direct' nutrition activities) and nutrition-sensitive (or more 'indirect' nutrition activities). The specific delineation between the two categorisations is less clear (see Box 7).

2. **The cross-sectoral nature of nutrition makes financing and delivery more complex** (see Box 6). The multi-sectoral composition of nutrition means that it cuts across traditional sector boundaries such as health, education, water and sanitation, and agriculture. Ensuring coordination and interplay between these sectors is key to maximise the impact of funding for nutrition.
3. **The response to malnutrition requires a multi-stakeholder approach.** Nutrition programmes require commitment from the private sector and CSOs as well as the public sector. Improving malnutrition goes beyond Government's responsibility. A number of key interventions to tackle malnutrition depend to a large extent on the role of not only the public sector, but most importantly on the role of communities and the private sector.
4. **Lack of financial tracking mechanisms on nutrition investments.** The quality of financing data on nutrition is very weak. There is very little information on how much funding is going to nutrition from government budgets and very few countries have financial tracking mechanisms for nutrition.⁸ Efforts on this front are increasing although the multi-sectoral and multi-stakeholder nature of programmes is likely to make this task very difficult. Similarly, there is limited tracking of commitments and coverage data.

In summary, funding for nutrition remains fragmented both at the international level as well as within countries. This is partly due to its cross-sectoral nature, as well as to the multi-stakeholder response that malnutrition requires. In parallel, international donors and countries must continue to increase its efforts to track its commitments and expenditures on nutrition interventions to understand better the intervention delivery models and financing vehicles.

Globally, there needs to be a consensus on what it is that constitutes nutrition interventions, including both specific as well as sensitive ones.

Within countries, there are numerous public agencies engaged in national nutrition policy and activities, including the ministries of finance, health, education, agriculture, water and sanitation, etc. In order to ensure alignment and coordination, they must work together to develop a common results framework. This means reaching broad agreement on what 'good' results in nutrition look like, and how each stakeholder plays a role in financing and delivering its interventions.

On nutrition funding, the roles of the MoF and the MoH will depend on each country. They can act as chair or co-chair of a cross-sectoral multi-stakeholder platform that facilitates this work. In some countries, there may be a national nutrition council or equivalent that plays a convener role. It is important however, that each sector ministry and the Ministry of Finance

8 Picanyol, C (2014). "Is there a better way to track nutrition spending?" in 'Global Nutrition Report 2014: Actions and Accountability to Accelerate the World's Progress on Nutrition', International Food Policy Research Institute. Washington, DC. November.

play an active role in policy design and implementation in the nutrition sector, bringing in their own experience on nutrition-related activities happening in their sectors.

Malaria

Africa faces the largest malaria burden (approximately 90% of all malaria-related deaths) and receives the largest share of global funding for malaria (72% in 2013). International funding channelled to malaria programmes in the region has increased at a rate of 22% over the past decade and outweighs domestic malaria funding by more than 7:1.⁹ Contributions from the Global Fund and USAID/PMI represent more nearly two thirds of the total malaria funding. Sustained investment over the past decade led to impressive progress in health outcomes: mortality rates in Africa decreased by 60%¹⁰ from 2000 and more than five million lives have been saved, the large majority among children under five (Box 8).

WHO's vision of "A world free of malaria" targets malaria elimination followed by malaria eradication in all countries with malaria endemic transmission. As of December 2014, WHO certified only four African countries as being in the process of malaria elimination: Cape Verde (pre-elimination), Algeria (elimination), Egypt (prevention of reintroduction) and Morocco (certified as malaria-free in 2010). Seven other countries are on track for 75% decrease in malaria incidence 2000–2015: Botswana, Eritrea, Namibia, Sao Tome and Principe, Rwanda, South Africa and Swaziland. All others are at various malaria-control stages.

Fighting malaria is one of the most cost-effective interventions available. The returns on investment from eliminating malaria by 2030 are estimated to be 40:1 globally and 60:1 in Africa alone.¹¹ Despite this, domestic funding for malaria control has remained relatively constant in malaria endemic countries as a whole and has seen modest growth in the African region at an average annual rate of 4% during the past decade.

Several major challenges in funding malaria programmes can be foreseen:

1. Total malaria funding to date has been far below estimated needs and the funding gap is likely to increase.

The total funding for malaria in 2013 was approximately half the \$5.1 billion estimated requirement. Despite expectations of increased commitments over the coming years from both multilateral e.g. the Global Fund, and private donors,¹² available projections suggest that even under optimistic assumptions (sustained donor commitment in line with 0.7% GNI and domestic prioritization in malaria-endemic countries), the global malaria funding gap would still be in excess of \$500 million by 2020. WHO's Global Technical Strategy for Malaria 2016–2030 estimated that the annual cost programme implementation cost will rise from \$5.1 billion currently to \$8.7 billion by 2030 in order to meet the 90% reduction

BOX 5: THE EFFECT OF MALARIA CONTROL ON INCIDENCE AND MORTALITY IN AFRICA BETWEEN 2000 & 2015

It is estimated that malaria accounts for 9–10% of Africa's disease burden. Since 2000 there has been a focused campaign against malaria, and between 2000 and 2015, DAH allocated to malaria has increased by nearly 200%. The bulk of this funding has been directed towards Sub-Saharan Africa, which bears a disproportionate burden of the disease (89% of malaria cases and nearly 91% of global malaria deaths occur in SSA, and the majority (70%) are children under five).

The increased funding scale up in the fight against malaria has resulted in considerable gains against malaria incidence and mortality. Two recent studies, using different methodologies, come up with corroborative findings on the effectiveness of malaria control since 2000.

Bhatt et. al. (2015) link a large database of malaria field surveys with detailed reconstructions of changing intervention coverage to directly evaluate trends from 2000 to 2015, and quantify the attributable effect of malaria disease control efforts. Using a probabilistic model, they find that malaria infection transmitted by *Plasmodium falciparum* halved and the incidence of clinical disease fell by 40% between 2000 and 2015. Further, they estimate that interventions have averted 663 (542–753 credible interval) million clinical cases since 2000. Insecticide-treated nets (ITN), the most widespread intervention, were by far the largest contributor (68% of cases averted).

A second study, (WHO, 2015) estimates that between 2000 and 2015, malaria incidence has decreased by 37%, while malaria deaths have decreased by 60% among the general population and 65% among children under five. In total, WHO estimates that over the 15-year period, an estimated 5.2m deaths were averted in Africa.

Current malaria interventions have thus substantially reduced malaria disease incidence across the continent.

Sources: (Bhatt et. al., 2015. The effect of malaria control on *Plasmodium falciparum* in Africa between 2000 and 2015 & WHO, Unicef (2015). Reversing the Incidence of Malaria 2000–2015:10

in incidence and mortality rates target.¹³ This will add to an estimated malaria R&D investments worth an annual average of \$670 million.

2. The majority of the international funding for malaria programmes is concentrated in malaria-control countries.

Given the necessity to sustain funding until malaria elimination is achieved, the malaria elimination/control stage of a given country has implications for the mix of financing options available for malaria programmes. The Global Fund,

9 World Health Organization (2014). World Malaria Report 2014.

10 WHO, Unicef (2015). Reversing the Incidence of Malaria 2000–2015:10

11 World Health Organization on behalf of the Roll Back Malaria Partnership (2015) Action and Investment to Defeat Malaria 2016–2030.

12 The Bill and Melinda Gates Foundation announced at the end of 2014 a 30% increase in their malaria spending. This included \$150 million towards malaria vaccine development and \$29 million towards malaria elimination in Southern Africa and the Greater Mekong Sub-region.

13 World Health Organization (2015). Global technical strategy for malaria 2016–2030.

for example, has invested minimally in malaria-eliminating countries (<10% of disbursements) and its New Funding Model (NFM) applicable since 2012 focuses on low income-high burden countries with the exception of two regional initiatives, none of which is in Africa (Latin America and the Mekong Delta, respectively). While it is true that countries struggling with transmission control have the largest burden and display proportionally large need of funding, there are also substantial precedents of malaria resurgence due to de-prioritisation once progress deemed 'sufficient' was achieved¹⁴ e.g. Sri Lanka. As such, malaria elimination countries will be in just as much financial need as the others, they will need to be more adept at identifying funding sources.

3. African governments will find themselves under increasing pressure to find solutions that increase funding for malaria control and elimination programmes. First, given the Global Fund's NFM prioritizes low-income countries and requires (and supports) recipient governments to increase their domestic contributions by 15%. As such, the drive to increase domestic financing will increase and middle-income countries will receive less funds for malaria control than before. Second, several low-income African states are expected to 'graduate' from low- to middle-income status until 2025 and will consequently lose eligibility for Global Fund support. Among them Chad, Kenya, Rwanda, Mozambique and Zimbabwe. Third, other key bilateral donors in the fight against malaria, such as the Governments of Australia and Japan, have concentrated their contributions to date elsewhere and are not expected to scale up contributions in the foreseeable future.

In summary, international funding for malaria appears to remain on a stable trajectory of growth, albeit drastically below estimated needs, and the role of domestic funding to sustain the fight against malaria is likely to increase, particularly in middle-income and malaria elimination countries. Several enabling options for governments to navigate this context have been formulated.¹⁵ They can be grouped under domestic financing and donor engagement.

- Domestic financing
 - Explore the establishment of regional funding mechanisms that pool together government, donor and other sources of funding. National governments would have the key stewardship and financial contribution role in such mechanism. The key advantage is that such regional malaria financing mechanisms exist elsewhere (EMMIE in Latin America, the Malaria Control Fund in the Arabic Peninsula) and lessons can be learned. The drawbacks relate to the time required to effectively set up such a transnational structure and the cost of establishing effective governance structures.
 - Make better use of existing malaria funds. One avenue involves linking national and sub-national level malaria risk information to resource allocation decisions. At the moment, there is evidence from only few countries (e.g. Zambia, Zimbabwe, Somalia and Kenya) that data on the geographical variation of malaria risks at the decision-making unit level informs malaria control plans and funding.¹⁶ Another option is to cautiously consider service integration wherever possible, as emerging evidence is pointing to effective and cost-effective service delivery.^{17, 18}
- Donor engagement
 - Build on existing global business cases for malaria elimination by developing regional and country-specific business cases to support the cause of sustained funding to donors.
 - Advocate to link domestic contributions to matched funds from international donors. A recent related example is the GAVI Matching Fund for immunizations, where contributions from the private sector are matched by DfID and the Bill and Melinda Gates Foundation.
 - Sustain the interest of existing bilateral donors with particular interest in malaria (e.g. Australia and Japan) and attract them to investing in Africa.
 - Engage with emerging government donors (e.g. Malaysia and South Korea) and attract them towards contributing to malaria control and elimination activities in Africa.

14 Cohen JM, Smith DL, Cotter C, Ward A, Yamey G, et al. (2012) Malaria Resurgence: A systematic review and assessment of its causes. *Malaria Journal* 11 (122). doi: 10.1186/1475-2875-11-122.

15 Kumar K, Pigazzini A, Stenson B (2013) Financing for Malaria Elimination. Cambridge Economic Policy Associates. Available online at <http://globalhealthsciences.ucsf.edu/sites/default/files/content/ghg/mei-financing-malaria-elimination.pdf>, accessed 9th Oct 2015.

16 Omumbo JA, Noor, AM, Fall IS, Snow RW (2013) How Well Are Malaria Maps Used to Design and Finance Malaria Control in Africa? *PLoS One* DOI: 10.1371/journal.pone.0053198.

17 Johnson AD, Thomson DR, Atwood S et al (2013) Assessing Early Access to Care and Child Survival during a Health System Strengthening Intervention in Mali: A Repeated Cross Sectional Survey. *PLoS One* DOI: 10.1371/journal.pone.0081304.

18 Kahn JG, Muraguri N, Harris B et al (2012) Integrated HIV Testing, Malaria, and Diarrhea Prevention Campaign in Kenya: Modeled Health Impact and Cost-Effectiveness. *PLoS One* DOI: 10.1371/journal.pone.0031316.



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CABRI Secretariat, PostNet Suite 314, Private Bag X06, Waterkloof, Pretoria 0145, South Africa
Tel: +27 12 492 0022
www.cabri-sbo.org

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