

Financing Health Care and Health Systems Reform

Background Paper



**International Conference on Financing Healthcare in Africa:
Challenges and Opportunities**

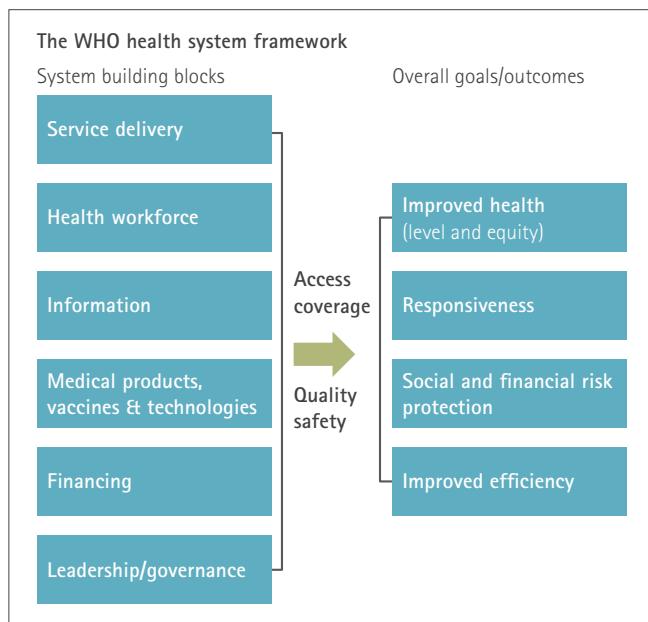
30 November and 1 December 2015, Dar es Salaam, Tanzania

Health financing is the most essential lubricant of the health system and cannot be understood in isolation. In this paper, we discuss how health systems are conceptualised, the role that health financing plays in influencing other system elements, as well as its dependence on them for good financing performance. Health financing can, for example, influence programme delivery, as illustrated later in this paper, and in turn be fragmented or integrated by service delivery organisation. This highlights the need for planning and evaluation that understands the system as a dynamic and interconnected whole.

Health Financing and the Health System Framework

The most common conceptualisation of health systems is the WHO 'building blocks' model, in which health financing is one of the six 'building blocks', alongside service delivery, the health workforce, information systems, medical products and technologies, and governance (Figure 1). All of these contribute to the ultimate goals of the system – better health, a responsive health system, social and financial risk protection and efficiency in resource use.

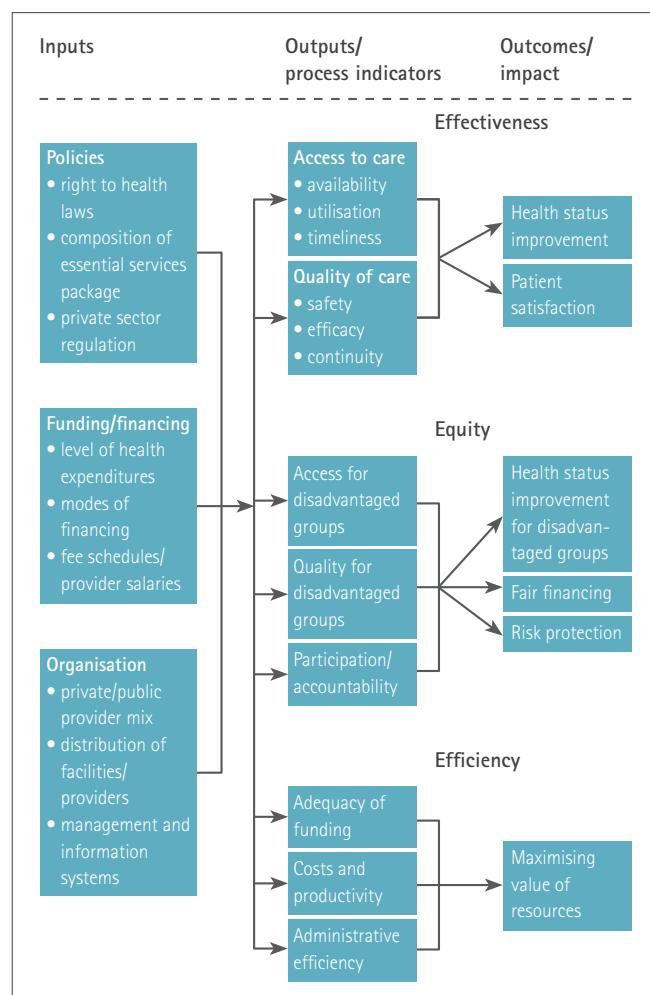
Figure 1: WHO health system model, 2007¹



It is clear however that not all 'blocks' are equal, and that health financing is more appropriately viewed as a key input, while other 'blocks' such as service delivery are outputs. Health financing, along with the policy and organisational framework of the sector, is a key driver of whether the health system is able to deliver on its core objectives (Figure 2). Health financing reforms can improve human resource distribution, and increase salary incentives and motivation of health workers, which

can positively affect their productivity and performance (see Box 2). Similarly, health-financing reforms can improve the efficiency of expenditure on medicines, medical technology and products. Health financing reforms can also improve not only the availability and use of health expenditure and cost related data, but also strengthen the base for unified national health information data.

Figure 2: Framework for Assessing Health Systems' Performance²



The nature of a system is that its parts relate in a dynamic and interconnected way. Health financing reforms rely on other components to be effective. For example, improving resource mobilisation will not deliver better care if providers are not available and well trained, and if there is no clearly defined package of services at facility level. Conversely, progress on other blocks of the system requires an articulation with health financing in order to be effective. For example, developing a policy to address non-communicable diseases, a growing challenge in many countries, is likely to require budgets to be restructured to support front-line staff and community health promotion activities.

1 WHO. 2007. Strengthening Health Systems to Improve Health Outcome. WHO's Framework for Action

2 M.E. Kruk, L.P. Freedman, Assessing health system performance in developing countries: A review of the literature. *Health Policy* 85 (2008) 263–276.

BOX 1: IMPROVING RESOURCE EFFICIENCY THROUGH INTEGRATION – MOZAMBIQUE

In 2004, largely using disease-specific funding from Development Partners (DPs), Mozambique launched a national scale-up of antiretroviral treatment (ART) and HIV care through a vertical "Day Hospital" approach. The direct result was an increase in the number of people on treatment, but the vertical model had major limitations including poor linkages with other specific services that led to loss to follow up (LTFU), increased human and material costs for HIV related activities and poor access among rural populations.

In 2005, working with NGOs, the MoH then began using HIV/AIDS treatment as an entry point for HSS, aiming at integrating HIV programmes into existing public-sector services.

Two provinces were initiated on the integration programme that included:

1. Placing ART services in existing units at PHC
2. Retraining existing workers
3. Strengthening laboratories, testing, and referral linkages
4. Expanding testing in TB wards
5. Integrating HIV and antenatal services; and
6. Improving district-level management.

By 2008, treatment was available in nearly 67 health facilities in 23 districts. Nearly 30,000 (up from 4 000) adults were on ART. Over 80,000 enrolled in the HIV/AIDS program. LTFU from antenatal and TB testing to ART services declined from 70% to less than 10% in many integrated sites. Average time from HIV testing to ART initiation was significantly faster and adherence to ART better in smaller peripheral clinics than in vertical day hospitals.

The integration approach enabled the public sector PHC system to test more patients for HIV, place more patients on ART more quickly and efficiently, reduce loss-to-follow-up, and achieve greater geographic HIV care coverage compared to the vertical model. Through the integration process, HIV resources were used to rehabilitate PHC infrastructure (including laboratories and pharmacies), strengthen supervision, fill workforce gaps and improve patient flow between services and facilities in ways that can benefit all programs.

Source: Pfeiffer, J., Montoya, P., Baptista, A., Karagians, M., Pugas, M., Micek, M., Johnson, W., Sherr, K., Gimbel, S., Baird, S., Lamdin, B. & Gloyd, S. (2010). *Integration of HIV/AIDS services into African primary health care: lessons learned for health system strengthening in Mozambique – a case study*. Journal of the International AIDS Society 2010, 13:3. <http://www.jiasociety.org/content/13/1/3>

A health system approach helps to understand health financing as a system component rather than standing alone.³ A health system approach broadens opportunities to address the major issues and obstacles to Universal Health Coverage (UHC), and improve national health policies, plans and strategies. For example, the issue of efficiency in resources use attached to fragmented health services and parallel programs such as TB, HIV/AIDS, malaria or non-communicable diseases (NCD) can be

³ Kutzin, J., Witter et al. (forthcoming) Health financing strategies for universal coverage: a reference guide. Geneva: WHO.

BOX 2: THE FREE HEALTH CARE INITIATIVE IN SIERRA LEONE

In 2010, the Government of Sierra Leone introduced a policy to provide care for pregnant and lactating women and children under-fives, free of charge at the point of use. The objective was to improve the poor health outcomes of mothers and children, and especially for those facing high financial barriers to access care. Although this was evidently a health financing reform, the President and Ministry of Health realised that this could not be successful without addressing wider health system issues. Working groups were therefore set up to address these prior to and after the launch in April 2010. They focused on:

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

These were challenging to delivery in a health system which was still recovering from civil war, but the holistic vision of health financing, health system and society working together for clear goals helped to mobilise support and resources. A full evaluation is underway but early analysis suggests that gains in areas like human resources for health were triggered by the FHCI.

Source: Witter, S., Wurie, H. And Bertone, M. (2015) The Free Health Care Initiative: how has it affected health workers in Sierra Leone? *Health Policy and Planning journal*, 1-9

addressed by integrating health services and funding benefit entitlement from pooled revenues (see Box 1). However, since the evidence on the impact of integration on improving health system efficiency varies across health systems, any such intervention needs to be based on a nuanced understanding of which parameters to optimize (e.g. scale of service provision).

In summary, effective health financing policies and practices are essential to health systems and also depend on the effective functioning of other elements within the system for their own success. Beyond the health system, the wider interaction with the community and society is also not to be neglected. Reforms in any one area tend to create knock-on effects (sometimes positive, sometimes negative), which should be anticipated as far as possible when planning change. As well as having a clear health system and health financing vision, successful health systems show adaptability – learning from experience and improving performance gradually over time.

Ministries of Finance and Health need to develop a shared understanding of the importance not just of financial resources and health outcomes but also the structural and systemic features that can convert the former effectively into the latter – in other words, a grounded understanding of how to fine-tune the health system over time, correcting inefficiencies and building on strengths. This can only be based on mutual respect for each other's sphere of expertise. Health financing strategies can sometimes help to provide a problem-based framework for regular health system and health financing review and reforms.

Financing for Vertical Programmes in Africa

This section starts with a comparative overview of the evolution and merits of vertical vs horizontal approaches to health programming. It then argues that while strengthening health systems has gained momentum during the past decade and is expected to remain a priority on the global health agenda, disease-specific programmes will necessarily also stay in focus due to unfinished agendas, donors' priorities and methodological difficulties in evaluating broad health systems interventions.

The debate over the appropriate models for health financing and health service delivery for maximizing health outcomes in low- and middle-income countries (LMICs), and Africa in particular, is now more than 50 years long.⁴ Most of the countries in question have weak health systems and face complex, overlapping health issues, hence the challenge to improve population health timely, cost-effectively and sustainably. Three broad conceptualizations of such models populate the global health discourse. The horizontal approach focuses on tackling broad health issues through building functional general health services. The vertical approach operates with narrowly defined health priorities, often centred round a single disease or group of related diseases, through

targeted financing, delivery, information and evaluation mechanisms that usually bypass national health systems. Finally, the diagonal approach targets disease-specific outcomes through broad health systems investments.

Verticalisation has proved an excellent awareness and fundraising vehicle for priority diseases, particularly since the early 1990s as part of the global fight against HIV, but the counter-discourse against it has been growing over time.⁵ Disease-specific programmes compete against each other for limited resources to the detriment of the general health infrastructure (example illustrated in Box 1), make planning and service coordination difficult for policy makers, increase fragmentation and generally tend to weaken health systems' capacity to respond to shocks. Nevertheless, extensive reviews carried out by the Commission on Macroeconomics and Health (2001) and the WHO Maximizing Synergies Collaborative Group (2009) could only identify few and poor quality studies that investigated the comparative merits of the two approaches. As such, the evidence over the merits of vertical vs horizontal programmes remains inconclusive, hence the debate remains politically charged.

Two things are certain: 1) progress in disease areas with dedicated programmes, such as HIV and malaria, has been impressive in relative terms during the past 15 years; and 2) recent crises in low income countries (e.g. natural disasters, epidemics, health workforce depletion) have painfully strengthened the global case for investing in health systems that are able to respond to powerful and unexpected shocks. Health systems strengthening and health systems governance are now very high up the global health agenda alongside the HIV and malaria agendas which will require substantial commitments over the next two decades to sustain present gains. Paper 5 explores a related topic and argues that health system strengthening is a more effective intervention for the prevention of catastrophic epidemics such as Ebola.

Reducing the extent of aid dependency on verticalisation entails pursuing a number of non-exclusive options which include investing in health systems strengthening, integration across existing disease-specific programmes and integrating vertical programmes within their respective health systems. The global health financing landscape has integrated this trend as several prominent donors (PEPFAR, The Global Fund) increasingly fund health systems interventions to support their disease-specific portfolios. Moreover, there is increasing interest towards delivering integrated care for patients with complex co-morbidities. In HIV, for example, such a transition is informed by the belief that HIV care can be more efficiently delivered by health workers in the general health system. Since HIV has largely become a chronic condition for nearly half of the HIV+ patients in Africa (on average >40% access to ART), managing complex HIV co-morbidities (e.g. HIV-mental health, HIV-tuberculosis) becomes a key priority.

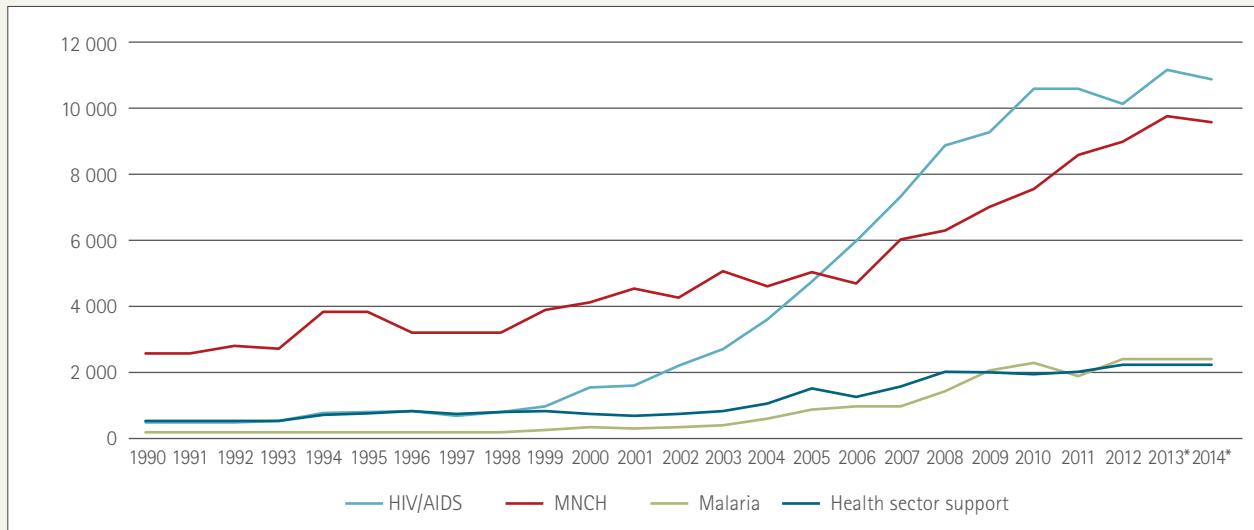
⁴ Mills A. (1983) Vertical vs horizontal health programmes in Africa: idealism, pragmatism, resources and efficiency. *Social Science and Medicine*, 17(24): 1971-1981.

⁵ Biesma RG et al (2009) The effects of global health initiatives on country health systems: a review of the evidence from HIV/AIDS control. *Health Policy and Planning*, 24: 239-252.

BOX 3: GLOBAL RESOURCE FLOWS AND COST-EFFECTIVENESS OF DEVELOPMENT ASSISTANCE FOR HEALTH (DAH)

Data from the Institute for Health Metrics and Evaluation (IHME) on global assistance to health shows the flat lining of the major aid flows since 2010, particularly in Malaria and HIV. In 2012, IHME estimates that there was nearly \$32.7bn of aid to LMICs, with a significant share (nearly 36% or \$11.8bn) channelled to sub-Saharan Africa. This is in contrast to the next biggest regional recipient, South Asia, which received \$2.3bn in the same year.

Figure 8: Development Assistance to Health (DAH) Flows 1990–2014



Across the sector specific health areas, between 2010 and 2014, HIV funding grew by 0.7%; Malaria, 0.9%; MNCH, 6% and sector wide approaches and HSS by 45% (from \$1.9bn in 2010, to \$2.2bn in 2014).

Cost effectiveness of DAH flows in Malaria, HIV and MNCH

A recent study (Bendavid, E., Duong, A. & Raikes, G.) estimates the cost effectiveness of DAH in key health sectors using an incremental cost effectiveness ratio (ICER) (measured in either DALYs averted or QALYs gained). Summary statistics from cost effectiveness studies across 20 focus countries that received \$58bn of DAH between 2000 and 2014 are presented below.

Table 1: Cost Effectiveness of NCD, TB, Malaria, MNCH and HIV in 20 Study Countries

Category	N (number of ICER estimates)	Mean ICER	Median ICER	Amount of Aid (\$USDm) to the 20 countries
Non-communicable diseases	79	875.5	187.4	537
TB	31	75.4	8.2	2,552
Malaria	69	46.4	9.7	4,007
MNCH	184	402.8	67.7	16,092
HIV	188	260.3	48.9	24,355

The study finds a negative relationship between the amount of aid and the incremental cost effectiveness, concluding that more health funding is going towards comparatively cost-effective interventions. The highest cost-effectiveness ratios were in NCD's and MNCH. The study also investigated the potential gains from reallocating existing expenditure and concludes that reallocating health aid funding can lead to greater health gains, even without increased disbursement, and the greatest gains can be achieved by reallocating some aid from HIV or MNCH to malaria or TB.

(List of Countries: Afghanistan, Bangladesh, Botswana, China, DRC, Ethiopia, Ghana, India, Indonesia, Kenya, Malawi, Mozambique, Nigeria, Pakistan, Rwanda, South Africa, Tanzania, Uganda, Vietnam and Zambia)

Sources: Bendavid, E., Duong, A., Sagan, C & Raikes, G. (2015). Health Aid is allocated efficiently, but not optimally: Insights from A review of Cost-effectiveness Studies. *Health Affairs*, 34, no7 (2015):1188-1195

Horizontal and vertical approaches to health programming are not mutually exclusive, instead they must coexist in any health system. However, challenging the *status quo* by moving away from verticalisation and strengthening health systems will continue to present challenges in Africa for several reasons:

- 1. Foreign aid has been crucial to support African countries' advances towards MDGs and all projections suggest it will continue to be so for the SDGs.** Despite calls for increased domestic funding for health, reliance on DAH will continue to be a reality for many countries, particularly low-income and conflict-affected ones. The global health financing landscape has seen the rise of private philanthropic donors, such as the Bill and Melinda Gates Foundation, which now have comparable contributions to those of national/supra-national aid agencies. The values and priorities of these donors have been highly specific and will continue to dominate their programmatic approach.
- 2. The increasingly complex volume and content of health priorities has pressured all donors to actively seek proof of value for money (VfM) for their programmes.** The rise of VfM considerations does not immediately go hand in hand with shifting the focus onto health systems interventions.⁶ The costs (e.g. collecting and aggregating more data across more data sources) and methodological difficulties (e.g. appropriate study designs) associated with demonstrating the impact of complex health system interventions are higher than those for traditional programme evaluations, thereby represent an obstacle in advancing the transition. Health systems research remains a relatively young discipline, much younger than economic evaluation, for example, hence the lag between the global policy shift and the available tools to enact the shift.
- 3. Despite substantive progress over the past decade, health information systems in Africa remain weak, hampering evaluations of vertical programmes.** District Health Information System (DHIS)-type systems have now been implemented in more than 20 countries (of which 13 with full implementation), but completeness, robustness and validity data concerns remain pervasive.⁷ This presents challenges to any M&E effort, crucial to demonstrating impact. M&E systems parallel to national health information systems have often been implemented (e.g. Kenya HIV/AIDS) to inform evaluations of vertical programmes. If deploying a programme-specific M&E system is an option that can be considered, emulating an entire national health information system is not an option at all. The situation is even more dramatic for unit cost estimates of health services that inform economic analyses: the data infrastructure is virtually absent and costing studies on the field are likely to

⁶ Barnighausen T, Bloom DE, Humair S (2012) Health systems and HIV treatment in sub-Saharan Africa: Matching intervention and program evaluation strategies. Program on the Global Demography of Aging Working Paper No 86 http://www.hsph.harvard.edu/program-on-the-global-demography-of-aging/WorkingPapers/2012/PGDA_WP_86.pdf

⁷ Karuri J, Waiganjo P, Orwa D, Manya A (2014) DHIS2: The Tool to Improve Health Data Demand and Use in Kenya. Journal of Health Informatics in Developing Countries, 8(1): 38-60.

be required for many years to come. This conundrum is likely to continue to incentivise the delivery of disease-specific programmes with embedded evaluations or at least only partial evaluations of broad, health system interventions.

- 4. The evidence for the integration of existing vertical programmes has been mixed to date.** Despite the intuitive appeal of the notion that delivering several types of services together can generate cost savings through economies of scale and superior health outcomes through coordinated care, available evidence in Africa does not yet point towards obvious advantages. To take the example of TB and HIV care in South Africa, traditionally delivered as separate programmes, there is little indication that service integration increases ART uptake⁸ and the evidence on improvement of TB outcomes is contradictory.^{9,10} While such results may be explained by having sub-optimally implemented service integration, at the very least they suggest that more needs to be known about which parameters to optimize (e.g. scale of service provision) before expecting any solid efficiency gains.¹¹
- 5. Investing in health systems strengthening requires at least as much political and financial support as do individual programmes, but with health gains that are much more difficult to attribute compared to vertical programmes.** Existing cost estimates of health systems strengthening initiatives remain largely conservative as they often do not include the cost of good governance, which makes it very likely that they exceed the combined cost of major vertical programmes (RMNCH, malaria and HIV). Consequently, politicians may be less easily persuaded, at least in the first instance, to commit to such broad, expensive and time-consuming reforms.

In summary, health systems strengthening is increasingly seen as the foundation to population health gains for the decades to come and has been already incorporated in the latest global HIV and malaria strategies. Health systems interventions will attract more and more of the investment that would traditionally have gone to vertical programmes. This is an opportunity for African governments to strengthen their national health infrastructure in response to emerging population needs e.g. ageing and the need for chronic care pathways, particularly relevant for HIV+ patients.

When considering how to navigate the challenges outlined

⁸ Lelidane TD et al (2015) Antiretroviral treatment among co-infected tuberculosis patients in integrated and non-integrated facilities. Public Health Action, 5(2): 112-115.

⁹ Kaplan R et al (2014) Integration of TB and ART services fails to improve TB treatment outcomes: comparison of ART/TB primary healthcare services in Cape Town, South Africa. South African Medical Journal, 104(3): 204-209.

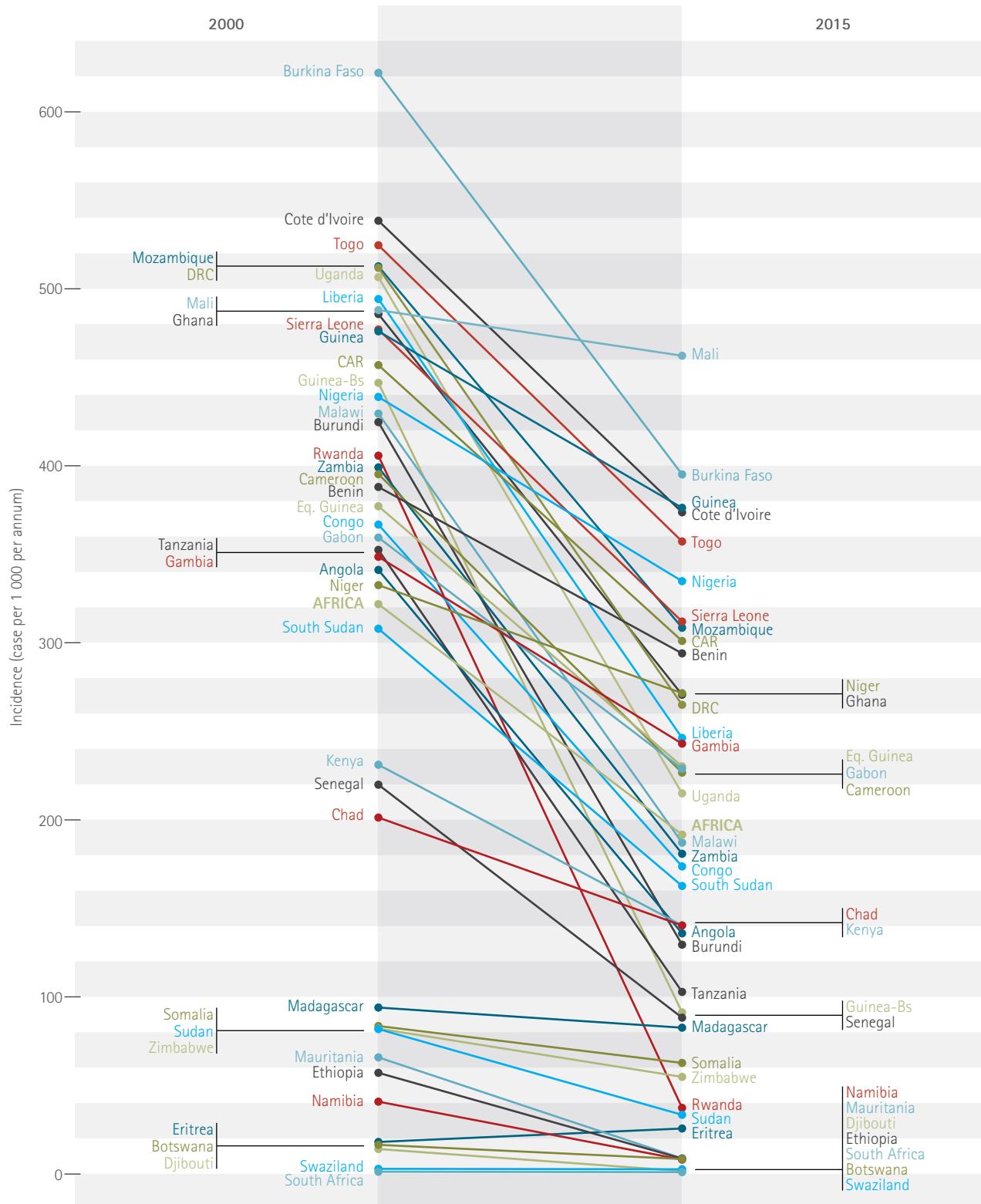
¹⁰ Jacobson KB et al (2015) Successful Tuberculosis Treatment Outcomes among HIV/TB Coinfected Patients Down-Referred from a District Hospital to Primary Health Clinics in Rural South Africa. PLoS One, 10(5):e0127024. doi: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127024>.

¹¹ Siapka M et al (2013) Is there scope for cost savings and efficiency gains in HIV services? A systematic review of the evidence from low- and middle-income countries. Bulletin of the World Health Organization, 92:499-511AD. doi: <http://dx.doi.org/10.2471/BLT.13.127639>

above, a key element will be to sustain and increase the political commitment to improving health. This is because none of the current health agendas are expected to lead to convergence of health outcomes in Africa with other developing regions earlier than 2030. More specifically, as

the pressure on increasing domestic funding for health will mount, the burden will correspondingly increase on Ministries of Health to demonstrate VfM in the health sector, particularly to Ministries of Finance, by concentrating efforts on improving spending efficiency and health system governance.

Annex: Change in Malaria Incidence Rate by Country, 2000–2015



Source: Bhatt et. al. 2015. The effect of malaria control on *Plasmodium falciparum* in Africa between 2000 and 2015. Nature, 526 (207-211):214 <http://www.nature.com/doifinder/10.1038/nature15535>



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