



INTEGRATING HIV & AIDS FUNDING

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FUNDING

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POLICY BRIEF #2: INTEGRATING HIV & AIDS FUNDING INTO UNIVERSAL HEALTH COVERAGE

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Introduction

HIV & AIDS programmes have achieved significant successes worldwide. New infections are on the decline in most regions and there is growing access to effective therapy for people in low- and middle-income countries or LMICs. Nevertheless, there will still be a need for high levels of funding for many years to come to support further expansion of treatment and to bring down the numbers of new cases.

In the meantime the funding landscape is changing. Fifteen years ago, the AIDS epidemic was seen as a unique and urgent concern for public health around the world; this mobilized public opinion and attracted an unprecedented level of political and financial support. Today, while need remains high, HIV & AIDS has to compete for resources with the whole range of societal, economic and environmental issues facing the planet as set out in the new international development agenda as expressed in the Social Development Goals (SDGs) with its 17 goals and 169 targets.

Until now external donors have financed a large part of the HIV response in LMICs, often using vertical mechanisms to do so, but donor funding has recently levelled off. Domestic funding has continued to grow however, and is now taking on a bigger role in the overall financing for HIV in countries.

The new SDGs have set ambitious goals for ending AIDS as a public health threat and for achieving universal health coverage or UHC by 2030. The drive to make these a reality can only put more pressure on funding.

In the light of these developments, policymakers need to find ways to make HIV and health funding go further. This raises the question of whether countries should integrate the often vertical funding of HIV programmes into their general systems for financing health. This brief looks at the prospects for doing so and examines the benefits and challenges this would entail.

WHAT DO WE MEAN BY FUNDING INTEGRATION?

Funding integration means moving to a system where funds for HIV & AIDS are no longer managed in parallel structures but are instead collected, put into a common pot with other funds and used to pay for a range of health services. A related idea is that integrated funding may then be used to provide integrated delivery of HIV & AIDS services alongside other health services.

How integrated is HIV & AIDS funding in LMICs today?

Health financing can be broken down into three core functions¹; revenue collection or the collection of funds for health purposes; pooling or the accumulation of pre-paid funds to cover the health care costs of a specific population and purchasing or the various ways funds are paid out to the providers of health care goods and services in the form of

salaries, fixed prices for drugs or global budgets for health facilities.

This framework has been used to analyse the degree of integration between HIV and general health funding in thirteen countries with varying levels of income, HIV prevalence and insurance coverage².

T.1

DEGREE OF INTEGRATION OF HIV FINANCING FUNCTIONS

COUNTRY	REGION	EPIDEMIC TYPE ³	2012 ADULT HIV PREVALENCE ⁴	INCOME LEVEL ⁵	COLLECTION	POOLING	PURCHASING
Zimbabwe	Africa	Generalized	14.7%	LIC	Low	Low	Low
Kenya	Africa	General	6.2%	LIC	Low	Medium	Low
Rwanda	Africa	Generalized	2.9%	LIC	Low	Medium	Medium
Nigeria	Africa	General	3.7%	LMIC	Low	Low	Low
Ghana	Africa	Generalized	1.4%	LMIC	Low	Medium	Medium
Vietnam	Asia	Concentrated/ Low-level	0.4%	LMIC	Low	Low	Low
Philippines	Asia	Low-level	<0.1%	LMIC	Medium	Medium	Medium
South Africa	Africa	Generalized	17.90%	UMIC	High	Medium	Medium
Brazil	LAC	Concentrated/ Low-level	0.3%	UMIC	High	High	High
Colombia	LAC	Concentrated/ Low-level	0.0%	UMIC	High	High	High
Thailand	Asia	Generalized	1.1%	UMIC	High	High	High
Mexico	LAC	Concentrated	0.2%	UMIC	High	High	High
Chile	LAC	Concentrated/ Low-level	0.4%	HIC	High	High	High

Source: Integration of HIV Financing into Health Financing Systems in Low- and Middle-Income Countries Conceptual Framework and Preliminary Findings

¹ Kutzin, J., A descriptive framework for country-level analysis of health care financing arrangements. Health policy, 56(3), 2001.

² Integration of HIV Financing into Health Financing Systems in Low and Middle Income Countries Conceptual Framework and Preliminary Findings, Results for Development for the HIV Economics Reference Group, 2014.

² Integration of HIV Financing into Health Financing Systems in Low and Middle Income Countries Conceptual Framework and Preliminary Findings, Results for Development for the HIV Economics Reference Group, 2014

³ Epidemic type by adult prevalence of HIV: concentrated when <1% of population but >5% of any high risk group are HIV-positive; generalized when >1% of population is HIV-positive; low-level when relatively little HIV is measured in any group. Source: <http://www.who.int/hiv/strategic/surveillance/en/>.

⁴ Source: <http://data.worldbank.org/indicator/SH.DYN.AIDS.ZS>.

⁵ 2012 GNI/Capita, Atlas method (current US\$): low income, US\$1,035 or less; lower middle income, US\$1,036 - US\$4,085; upper middle income, US\$4,086 - US\$12,615; and high income, US\$12,616 or more. Source: World DataBank: World Development Indicators.



There is substantial variation in the current level of integration both between countries and within countries for each of the three financing functions. Proposals to integrate HIV funding into health may need to take this factor into account. Rather than proposing across-the-board solutions, it may make more sense in some countries to integrate some functions and not others

Of the thirteen countries surveyed, the five with higher levels of income and low or concentrated HIV epidemics also displayed high degrees of integration in all three functions. This was the case regardless of differences in institutional arrangements for providing services. The small sample analysis suggests that integration seems to be more feasible in countries with higher incomes or with lower HIV prevalence

The five countries with a medium level of integration are probably the most likely candidates for more integration in the near term. One example is South Africa, where the government and President's Emergency Plan for AIDS Relief or PEPFAR are beginning to prepare the ground for less dependence

on PEPFAR funding. While it is still early days, the next steps may include an analysis of how much HIV funding would be needed under a national health insurance scheme or how to organize integrated pooling and purchasing for HIV services.

Countries in the survey with lower levels of integration are usually poorer, do not have broad health insurance schemes and are experiencing generalized HIV epidemics, particularly in sub-Saharan Africa. In these countries surveyed there is a clear link between low levels of income and a low level of integration, due to these countries' strong reliance on external funding for HIV & AIDS. It would therefore make little sense to promote integration in the collection function, but bundling HIV and non-HIV assistance might save resources in the short term and help pave the way for less reliance on external funding in the longer term. Rwanda, where a low income and the inability to raise sufficient resources locally would make integrating collection difficult, is one example of this. However some integration of pooling and purchasing is possible while still moving towards the UHC goals.

What are the challenges for integration?

One of the reasons why vertical funding developed was precisely to deliver a response to HIV in those countries with weak health systems who found themselves unable to mount an adequate response. In many LMICs, these systems remain weak today. The ambitious new targets for elimination of AIDS as a public health threat and plans to extend UHC will put them under increasing pressure⁶. Therefore integrating HIV into UHC may call for trade-offs between the two, especially in the current funding environment. One area of concern is that the needs of key populations could suffer in the process as resources may be allocated to groups with greater political importance.

Taking on the demands of a fully integrated system will call for extra funding capacity. This raises the question of how much fiscal space poorer countries, such as the world's 49 poorest countries, currently have to do so. Comparing McIntyre and Meheus' recent estimate of minimum expenditure on providing UHC

with UNAIDS' recommended expenditure on HIV interventions and then comparing this to the WHO estimated expenditure on health can help throw some light on this question⁷.

The McIntyre and Meheus recommendations do provide more than enough space to accommodate UNAIDS recommended expenditure in most of the 49 countries, but those countries with especially high fiscal need for HIV interventions such as Zimbabwe may struggle. However judging by expenditure to date in these 49 low income countries, there could be a substantial gap in resources between current sources of revenue and fiscal need for the period 2015 – 2019. This will pose a considerable challenge for advocacy efforts.

HIV intervention packages usually include both public and private goods. Primarily private health care goods, such as treatment⁸, could fit easily into insurance-based financing schemes or other pre-paid approaches.

⁶ Poku, N., How Should the Response to AIDS Relate to the Drive for Universal Health Coverage?, 2015

⁷ Oxford Policy Management, Opportunities and challenges for the integration of health and HIV financing, (undated)

⁸ Treatment is both a private health good and a merit good in that it has also positive externalities due to its preventative effects for the public alongside curative effects for the individual

But many public goods, including awareness-raising, the distribution of condoms or HIV-testing systems, would not fit so easily, and so are usually reliant on government funds. If HIV services are integrated into an insurance package, the public HIV goods could run the risk of neglect or even fall by the wayside. This could lead to a rise in the number of new infections, which would be an extremely negative outcome.

In Vietnam where donor funding is expected to fall the government is looking at ways of covering AIDS treatment via social health insurance, although coverage is currently low among HIV-positive people. However it seems likely that prevention services will still be paid for by government, and it might be argued that the needs of key populations may also need public funding.

What are the benefits from integration?

Integrating HIV financing with that of general health financing systems could be one way of improving the efficiency and financial sustainability of HIV programmes looking to the future. Moreover integration could promote self-sufficiency through greater domestic ownership of health and HIV programmes.

It may also have the potential to improve the access, equity and quality of general health services for the population. It could do this by leveraging HIV systems, processes and expertise to address other health concerns⁹.

Primary health care is one area where this could make a difference. This has been the case in rural Haiti where introducing comprehensive AIDS care has

boosted staff morale and increased the availability of essential medicines to treat other forms of infection.

Another justification for integration arises from the nature of HIV & AIDS itself. While most diseases are either categorized as short-term and communicable or chronic and non-communicable, due to advances in treatment, AIDS is now a chronic communicable disease. AIDS is often now the biggest chronic care programme that exists in many LMICs. It may be that HIV is playing a role in causing other diseases such as non-AIDS cancers or cardiovascular problems such as myocardial infections and strokes¹⁰. So there is a concern that growing numbers of people receiving Antiretroviral Therapy could add to the treatment burden for other health conditions and the need for more integrated delivery systems.

Conclusions and prospects for integration

It is probably too early to reach a firm conclusion on the immediate prospects for integrating HIV and health funding. While the final goal is to include HIV as an integral part of UHC, it is important that we do not jeopardize the current HIV response and its achievements to date. Poku describes the prospects for integration as “at present too remote and too risky” and advocates focusing on strengthening health systems in general, especially in those areas which benefit the whole system such as training personnel, screening or gathering data and analysis.

With such a high number of variables, it would be unwise to use generalized estimates to inform

local policy decisions¹¹. Country by country case studies could help to throw a more systematic light on these questions and help to inform future policy decisions.

There is a lack of evidence on the impact that integration would have on efficiency, quality and access both for HIV and for general health services¹². However, the analysis discussed above does provide a first attempt at a typology of countries based on the current level of integration, income levels and health system performance – and gives pointers as to where further integration efforts may be likely to succeed.

⁹ Poku, N., How Should the Response to AIDS Relate to the Drive for Universal Health Coverage?, 2015

¹⁰ Phillips, A. N., Neaton, J., & Lundgren, J. D., The role of HIV in serious diseases other than AIDS. AIDS (London, England), 2008

¹¹ Oxford Policy Management, Opportunities and challenges for the integration of health and HIV financing, (undated)

¹² Results for Development for the HIV Economics Reference Group, Integration of HIV Financing into Health Financing Systems in Low and Middle Income Countries, 2014

OPPORTUNITIES AND CHALLENGES FOR THE INTEGRATION OF HEALTH AND HIV FINANCING

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1. Introduction

The international community, as well as countries individually, are in the process to committing (or not) to two partly related high level policy objectives:

1. Achieve universal coverage for a (basic) package of health services¹, which includes some HIV services, and
2. Ending AIDS 2030², through achievement of the “90 – 90 – 90”³ initiative on treatment and more aggressive targets on prevention.

This paper evaluates to what extent there is enough fiscal space to fund both recommended HIV/AIDS interventions under Ending AIDS 2030 and universal

provision of basic healthcare (UHC) in 49 of the lowest income countries (in 2007)⁴ (listed in annex A). It does so by outlining estimated fiscal need (resource needs) for the provision of both UHC and HIV/AIDS interventions up to 2019, and comparing these to estimated fiscal space for health and HIV. For discussion, anticipating a significant resource gap, it introduces three issues that can contribute to making an integrated HIV and UHC financing system feasible: efficiency savings, borrowing, and the importance of understanding opportunity costs when making resource allocation decisions with limited resources within an integrated health financing system. Some of the further challenges beyond the lacking fiscal space are also introduced.

¹ Currently there is no consensus about what UHC entails. A broad understanding that all people obtain the health services they need without suffering financial hardship when paying for them (http://www.who.int/features/qa/universal_health_coverage/en/). This implies that the entire population has access to a defined package of health care services of high quality with financing protection.

² The world is embarking on a Fast-Track strategy to end the AIDS epidemic by 2030. To reach this visionary goal after three decades of the most serious epidemic in living memory, countries will need to use the powerful tools available, hold one another accountable for results and make sure that no one is left behind (http://www.unaids.org/en/resources/documents/2014/JC2686_WAD2014report).

³ By 2020, 90% of all people living with HIV will know their HIV status, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy and 90% of all people receiving antiretroviral therapy will have viral suppression (<http://www.unaids.org/en/resources/documents/2014/90-90-90>).

⁴ The 49 low income countries are those that had a GNI less than \$935 in 2007 (\$2007).

The report is divided into six sections. The first section outlines a recent recommendation on fiscal need for UHC by McIntyre and Meheus (2014) which is in part based on costing exercises done in 49 of the world's poorest countries. This is then compared to UNAIDS' estimates of fiscal need for HIV/AIDS interventions in these same 49 countries. These estimates are used throughout the report as the estimated fiscal need for the provision of UHC and HIV/AIDS services.

For UHC, McIntyre and Meheus propose:

The minimum acceptable cost of a health sector is whichever is bigger; 5% of GDP or \$86 per capita (McIntyre & Meheus, 2014).

For HIV/AIDS interventions, UNAIDS have estimated the cost of a variety of interventions that are needed in each country as part of a drive towards 95% personal knowledge of HIV status, 95% of HIV positive people on antiretroviral therapy and 95% of people on antiretroviral therapy (ART) with viral suppression. A significant part of these packages are health sector jurisdiction – including the provision of ART and the prevention of mother to child transmission. However, other parts of the strategy fall outside the health sectors – for example media campaigns, community mobilisation, youth campaigns, political advocacy, legal infrastructure etc.

Section one compares McIntyre and Meheus' estimates of the minimum cost of universal provision of a basic package of health care to the UNAIDS estimates for the cost of both the basic and full set of HIV/AIDS response interventions in 2015. It finds that there is more than enough space in McIntyre and Meheus' UHC recommended expenditure for UNAIDS HIV/AIDS recommended expenditure in the majority of the low income countries. However, while this is

the case on average, it doesn't apply to all countries individually. Some countries (for example Zimbabwe) have disproportionately high HIV/AIDS expenditure needs and the share set aside for HIV in the UHC package is not enough to cover the HIV resource needs in those countries. This highlights that the generic use of UHC expenditure recommendations does not always reflect country specific dynamics.

Section two looks at fiscal space for health care between 1995 and 2012. Using WHO national health accounts data total health expenditure (THE) on health is estimated per capita and broken down into government, donor, out of pocket (OOP) and private expenditure on health (non OOP) expenditure on health. We find that, aggregated across the selected 49 LIC, THE grew from \$14 in 1995 to \$53 in 2012 in current terms, and that OOP was consistently the largest contributor. Government and donor expenditure on health together rose from \$5 to \$29 over the same period.

Section three compares fiscal space to fiscal need between 1995 and 2012. By deflating and inflating the estimated total annual cost of UHC (outlined in section one and explored further in annex b), and comparing it to actual expenditures (outlined in section two) it shows that not nearly enough money was spent in health sectors in the 49 LIC to cover the basic minimum cost of UHC over the period, and highlights that the cost of the package may have grown faster than actual expenditure, so that fiscal space as a proportion of fiscal need in 2012 may have been lower than in 1995. We do not analyse fiscal need for HIV/AIDS retrospectively. This is addressed in the following sections.

Section four presents scatter plots of GDP per capita against THE per capita, government expenditure on health per capita, donor expenditure on health per

capita, OOP per capita and private per capita (non-OOP) with power lines of best fit to estimate elasticity relationships between the five variables and GDP per capita. This is then used to predict what may happen to each of the variables given the IMF GDP and population projections. It finds that GDP per capita is only weakly correlated with any of the individual financing sources, but strongly correlated with THE per capita. Between 1995 and 2012, THE per capita was approximately 5% of GDP per capita in any given year or country among the 49 LIC.

Section five cautiously extrapolates expenditure and fiscal need to future years follow the lines of best fit computed in section four to project estimated fiscal space up to 2019. Fiscal need is projected up to 2019 through the methodology outlined in section one. Projected fiscal need is then compared to projected fiscal space. For the 49 LIC, it is estimated that between 2015 and 2019 there will be a \$240 billion resource gap between THE and fiscal need for the provision of UHC (about 30% of total fiscal need), or a \$550 billion resource gap if private expenditure on health is not included (about 70% of total fiscal need).

In conclusion, while there is enough space for UNAIDS' recommended HIV/AIDS resource needs within McIntyre and Meheus' recommended minimum expenditure on UHC, the current health expenditure in low income countries does not cover the recommended minimum expenditure on UHC, and in turn an integrated UHC and HIV financing system is also not affordable. However, there may be space for UNAIDS' recommended expenditure levels if expenditure on other UHC interventions is decreased from previous estimates. UNAIDS' recommended expenditure on basic health sector HIV/AIDS response interventions is projected to be around 14%-15% of government plus donor fiscal

space for health between 2015 and 2019, which is not out of line with the proportion of expenditure allocated to HIV/AIDS in the three costed basic packages of care outlined in section one.

Section six introduces four topics that need to be addressed, given that, under business as usual, there will not be enough money for the provision of adequate universal health care in the 49 countries. First, there is significant space for countries to improve the efficiency of their health sectors. Recent analysis of the rate at which expenditure on health is converted into low infant and child mortality and high life expectancy in 173 countries shows that there is large variation in outputs at similar levels of input. For countries with low health expenditure and low health status, improving the efficiency of health sectors may be more fruitful in terms of improving outcomes than just increasing expenditure. Second, it may be possible for some countries to borrow to fund particular investments in health sectors. This is particularly relevant for expenditures on infrastructure, such as facility development. Where countries are currently borrowing below what is considered sustainable, as future generations will likely benefit from investments in health it may be justifiable that they be a part of funding current investments in health. Third, given the hard budget constraint, the opportunity cost of expenditure in countries with low expenditure on health is particularly high. Interventions should only be funded where the benefit from that expenditure is greater than the opportunity cost of the expenditure. Cost-effectiveness analysis of interventions may be a useful tool for identifying the opportunity cost of expenditure, and in turn informing allocation of the very limited resources within an integrated health financing system. Fourth, there are a number of further challenges relating to the integration of UHC and HIV financing.

However, a number of middle income countries have made significant progress, and two of the low income countries used

throughout this report have already made steps towards the integration of revenue pooling and health service purchasing.

2 Fiscal need

2.1 What is the minimum cost of a health sector?

Universal health coverage is taken to mean that everyone in a country can access a defined basic package of the healthcare without suffering financial hardship in doing so. In other words, an adequate benefits package, provided to a whole population, with sufficient financial protection against the cost of care (WHO, 2010).

Currently, the only target for government spending on health that has been signed up to by a large number of countries is the Abuja health financing target – recommending that governments allocate 15% of their revenue to the health sector. However, as this is a proportion of a variable number, there is no guarantee that it will be enough to provide an adequate health service. In 2012 the Sierra Leonean government spent approximately \$115 per capita in total (GoSL, 2014). Even if it had allocated 15% of government expenditure to the health sector, it would still have only spent \$17.50 per person. This is not enough to fund an adequate health sector. Moreover, as a social welfare spending target, it does not encourage governments to raise extra revenue for social expenditure – only that ministries of finance should allocate a set proportion of what they have to health sectors.

Based on these criticisms of the Abuja health financing target, McIntyre and Meheus have recently proposed a lower limit benchmark for public expenditure on the provision of

UHC that aims to recommend a minimum-but-adequate expenditure on health given the size of an economy (rather than a government) and the absolute cost of basic health care (McIntyre & Meheus, 2014).

They show that countries in which the government spends around 5.5% of GDP on health (including mandatory health insurance payments) tend to have infant mortality rates lower than 10 per 1,000 live births; countries in which the government spends around 6% of GDP on health tend to have out of pocket expenditures that account for less than 20% of total health expenditure; and that countries in which the government spends more than 5% of GDP on health tend to achieve the current global average of 44 health workers per 10,000 population. Based on this, they argue that 5% of GDP is enough to fund a sector that provides UHC up to basic quality standards (in terms of provision of care (adequate HR), outcomes (adequate infant mortality) and financial protection (adequately low OOP)).

However, in a bid not to limit recommendations to the size of a government, the target opens itself to the criticism that it is not achievable where governments are small. Moreover, while this may be preferable to the Abuja health financing indicator because it has some evidence based justification, where GDP is low, 5% may still not cover basic health needs. Because of this, the authors argue that a GDP dependent target should also be complemented with a GDP-independent target.

For the GDP-independent target McIntyre and Meheus refer to three large costing studies that have estimated the absolute cost of provision of UHC in low income countries: one done by the Commission on Macroeconomics and Health in 2001, and the other two done by the High Level Taskforce on Innovative International Financing for Health Systems in 2005.

2.1.1 The Commission on Macroeconomics and Health (2001)

In 2001 the Commission on Macroeconomics and Health (CMH) estimated the cost of scaling up the coverage of 49 priority health interventions at the close-to-client level in the 83 countries with GDP per capita less than \$1,200 (1999\$). The aim of scaling up was universal access to basic health care, and it was recommended that this was done with public (including donor) resources. It gave the estimated additional costs (on top of what was already spent) of expanding from the current level of provision to the target levels by 2007 and 2015. It was based on local population health needs, coverage levels and cost of expansion (with non-tradable goods adjusted for purchasing-power parity). Further adjustments were also made to account for the process of scaling up – for example increased management and salary costs. Results were given both in terms of annual average incremental costs and projected annual flows (CMH, 2001)

2.1.2 The High Level Task Force (2005):

In 2005 a High Level Task Force on Innovative International Financing for Health Systems (HLTF) was established to generate two further estimates of expanding health sectors to offer everyone access to guaranteed health benefits as stated in UN conventions.

The first of these built on work that had already been done, and is referred to as the 'WHO normative'. It focused on a benefit package including HIV, TB, malaria, child health, immunization and maternal and newborn health interventions. The second of these was built on country costings using the Marginal-Budgeting for Bottlenecks approach, and is referred to as 'MBB'. The MBB made heavy use of country planning exercises, and assumes scale up of community services before clinical services. Both refer specifically to the 49 low income countries that were projected to have gross national incomes (GNIs) per capita less than \$935 in 2007 (2007\$), and are presented in terms of a six year investment plan for scaling up service provision between 2009 and 2015 (see annex A for a list of the countries. These are the 49 countries referred to in the introduction and are the focal jurisdiction of this report).

Both the MBB and WHO normative also present estimated additional costs and total costs. The HLTF suggest that MBB may more realistic than the WHO normative as many large capital expenses are delayed until the final years of the plan. It is presented with three speeds of expansion – low, medium and high. The WHO normative is, in contrast, facility based, and has an optimistic view of the time it takes to put infrastructure in place, with recommended capital expenditure peaking in 2012 (Taskforce on Innovative International Financing for Health Systems, 2005).

In order to facilitate analysis across a group of countries in any one year, we use the estimated cost of the packages in 2015 (as presented in (Taskforce on Innovative International Financing for Health Systems, 2005) and (CMH, 2001)). However, it is important to be aware that these estimates are part of medium term expenditure plans. The CMH assumes scaling up started in

2002, and the MBB and WHO norm assume work began in 2006. The 2015 fiscal needs estimates assume that specific previous investments have already been made, and do not apply to a country that is just starting to scale up health services now. Individual countries need to apply each stage of the methodology put forward in this report, specifically considering their own situation. These numbers should not be taken as generalizable targets. Countries need to think about what parts of the package they need to scale up, what investments have already been made and whether the

package is actually appropriate in the first place.

With this caveat in mind, the CMH, MBB and WHO normative estimated costs of universal provision of a basic benefit package in 2015 are used in this report to give an indicative figure for reasonable minimum annual expenditure on health.

The WHO normative and MBB present the expected cost of provision of a basic package in 2015 in 2005\$. The CMH presents the expected cost in 2015 in 2002\$ (see table 1.1).

T.1.1

THREE ESTIMATES OF FISCAL NEED PER CAPITA IN 2015

ESTIMATE BY	ADDITIONAL FISCAL NEED PER CAPITA	CURRENT FISCAL SPACE PER CAPITA	TOTAL FISCAL NEED PER CAPITA
WHO normative (2015 in 2005 \$)*	29	25	54
MBB medium (2015 in 2005 \$)*	24	25	49
CMH (2015 in 2002 \$)**	21	17	38

* (Taskforce on Innovative International Financing for Health Systems, 2005)

** (CMH, 2001)

The CMH estimate for current fiscal space per capita is inferred from total fiscal need and additional fiscal need per capita, which are both reported in (CMH, 2001)

Throughout report grey cells are taken directly from sources. White cells inferred.

2.1.3 McIntyre and Meheus' recommended minimum expenditure needed for UHC

McIntyre and Meheus examine two funding benchmarks: 5% of GDP and the CMH, MBB or WHO normative fiscal needs estimates.

To decide which one to apply McIntyre and Meheus recommend:

A/ The minimum acceptable cost of a health sector is whichever is bigger; 5% of GDP or the cost of a basic package



of health services as estimated by CMH, WHO normative or MBB.

They select the WHO normative from the HLTF and inflate it to be expressed in \$2012 (rather than \$2005), and finally recommend:

B/ The minimum acceptable cost of a health sector is whichever is bigger; 5% of GDP or \$86 per capita (in 2015, expressed in 2012\$).

This report has further inflated this estimate to be expressed in terms of 2015\$ using the average emerging market and developing country inflation rate taken from the IMF's World Economic Outlook. For an explanation and discussion of problems when inflating the health sector costings, see annex B:

C / The minimum acceptable cost of a health sector is whichever is bigger; 5% of GDP or \$100 per capita (in 2015, expressed in 2015\$).

How this manifests in the 49 countries is shown in figure 1.1.3. Importantly, 5% of GDP is greater than \$100 in only six of the countries. This is a significant drawback of the recommendation, as the first component of the double target is effectively redundant in most low income countries. However, this is the reason the second component of the target was added. It also highlights the major challenge many low income countries face, where even if governments could choose to spend 5% of GDP on health sectors, they would still be far off being able to afford adequate services. In these cases it is difficult to see how adequate health care can be affordable without contributions from external resources.

From now on, this report uses recommendation 'C' to estimate the minimum fiscal need to adequately provide UHC in 2015.

2.2 What is the minimum reasonable cost of HIV/AIDS interventions?

In an attempt to increase standards and efficiency of investment in the fight against HIV/AIDS, UNAIDS have published the estimated costs of recommended packages of HIV/AIDS response interventions for countries to implement. There are a number of different sets of estimates that have come out at different times. In 2011 UNAIDS proposed an investment strategy that included 33 interventions categorised into basic programme activities, interventions to create an enabling environment and programmes in other health and development sectors (Schwartlander, et al, 2011). The first of these categories included interventions that were the most clearly 'health sector' jurisdiction – such as antiretroviral therapy and prevention of mother to child transmission of HIV/AIDS. The second two categories included interventions such as 'youth out of school', 'political commitment and advocacy' and 'AIDS orphans', which would rely on government agencies beyond ministries of health for their implementation.

More recently UNAIDS have introduced a new target 'ending the AIDS epidemic by 2030' and updated these country recommended packages. 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. Meeting the target requires only 200,000 new infections among young adults annually by 2030, and no discrimination against people living with HIV (UNAIDS, 2015). These are built from the 90-90-90 targets many countries have already signed up to, which are equivalent except that they are targeting 90% of the population and 500,000 new annual infections by 2020 (UNAIDS, 2014).

These are ambitious targets, requiring a large deviation from current programmatic and expenditure trends, particularly in sub-Saharan Africa. The updated country specific strategies consist of service packages categorised into 'enablers and synergies', 'outreach and prevention', 'test and pre-ART', 'ART' and 'community mobilisation'. Specific activities include, for instance, 'health systems strengthening', 'education', 'community mobilisation', 'ART', 'pre-ART', 'testing', 'pre/post exposure prophylaxis', 'cash transfers', and many more. It involves an aggressive scale up of services and frontloading of investments.

In particular 28 countries have been highlighted for focused attention as part of a 'fast track' approach between 2015 and 2021 because they account for 89% of all new HIV infections. While there is some overlap (Nigeria, Kenya, Zimbabwe and Mozambique, for example), key countries driving the cost of the 28 fast track target are South Africa, India, China and Brazil

– none of which are part of the 49 low income country group that this report focuses on. Nonetheless, UNAIDS have costed strategies for 45 of the 49 countries. The estimated total cost per capita in 2015 of UNAIDS recommended HIV/AIDS interventions in 44⁵ of the 49 countries is given in figure 1.2⁶.

Zambia, Zimbabwe and the Solomon Islands have the highest fiscal need per capita from among the 49 low income countries – ranging between \$25 and \$35. In most of the countries, however, recommended minimum expenditure is much lower, and in over half of them it is below \$5 in 2015.

2.3 Is there adequate space in UHC for HIV/AIDS?

All three estimates of the cost of UHC (CMH, WHO Norm and MBB) specifically incorporate the cost of HIV/AIDS interventions. These are outlined in table 1.3.1.

T.1.3.1 CMH, MBB & WHO NORM ESTIMATES OF FISCAL NEED FOR HIV/AIDS

HIV/AIDS SPECIFIC ESTIMATE BY	ADDITIONAL FISCAL NEED PER CAPITA	CURRENT FISCAL SPACE PER CAPITA	TOTAL FISCAL NEED PER CAPITA
WHO normative (2015 in 2005 \$)*	2.4	5.0	7.4
MBB medium (2015 in 2005 \$)**	1.6	5.0	6.6
CMH (2015 in 2002 \$)***	4.7	3.4	8.1

* (WHO, 2009)

** (WB, 2009)

*** (CMH, 2001)

Grey cells direct from sources. White cells inferred.

⁵The IMF World Economic Outlook does not include a population estimate for the Democratic People's republic of Korea, so a per capita estimate is not included.

⁶Figures obtained from internal communications with UNAIDS staff.



To infer the white cells a number of assumptions have been made. It is assumed that current spending is split between service provision and systems strengthening (roughly interpreted as administration) 60:40, as this is how the incremental estimate is split in the CMH. It is also assumed that current spending on service provision is split evenly between nine key areas of intervention – TB treatment, malaria prevention, malaria treatment, HIV prevention, HIV care, HIV treatment (HAART), childhood related

illnesses treatment, childhood related illnesses, immunization and maternity related illnesses as this is how the incremental estimate is split in the CMH.

Table 1.3.2 shows these figures inflated to 2015\$ using the emerging market and developing country average inflation rate. In total, in 2015\$ we estimate that the WHO norm allocates \$14, the MBB allocates \$12 and the CMH allocates \$18 per capita for HIV/AIDS interventions.

T.1.3.2 ESTIMATES OF FISCAL NEED PER CAPITA FOR HIV/AIDS IN 2015\$

HIV/AIDS SPECIFIC ESTIMATE BY	ADDITIONAL FISCAL SPACE REQUIRED	CURRENT FISCAL SPACE	TOTAL FISCAL SPACE REQUIRED
WHO normative (2015 in 2015 \$)	4	9	14
MBB medium (2015 in 2015 \$)	9	9	12
CMH (2015 in 2015 \$)	14	8	18

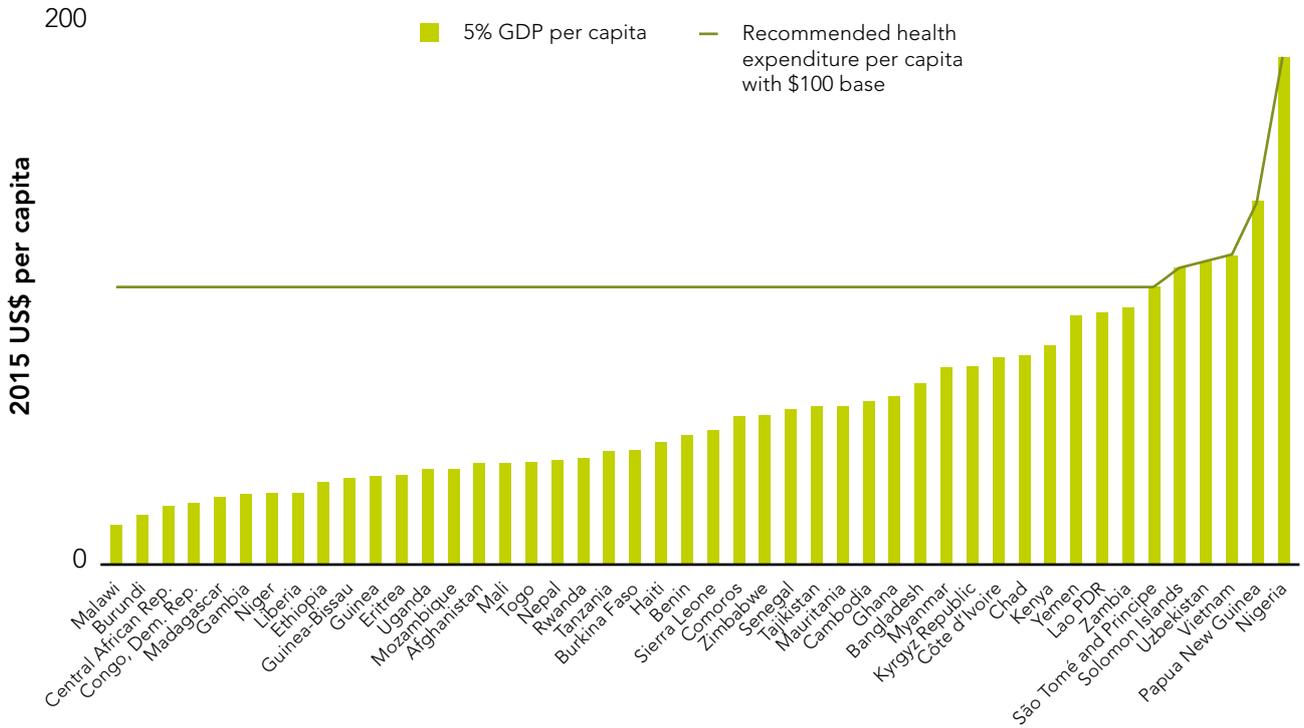
When 2015 is taken in isolation, all three (WHO norm, MBB and CMH) estimated costs of basic benefits packages include more than enough space specifically allocated for HIV/AIDS interventions in the majority of the 49 countries. Only in Mozambique, Zambia, Zimbabwe and the Solomon Islands is the UNAIDS recommended minimum expenditure on interventions as part of the 2030 target greater than what was allocated in the WHO normative UHC benefits package costing.

This suggests that, on the whole, McIntyre and Mehues' estimates for the cost of expanding to universal health coverage do include enough

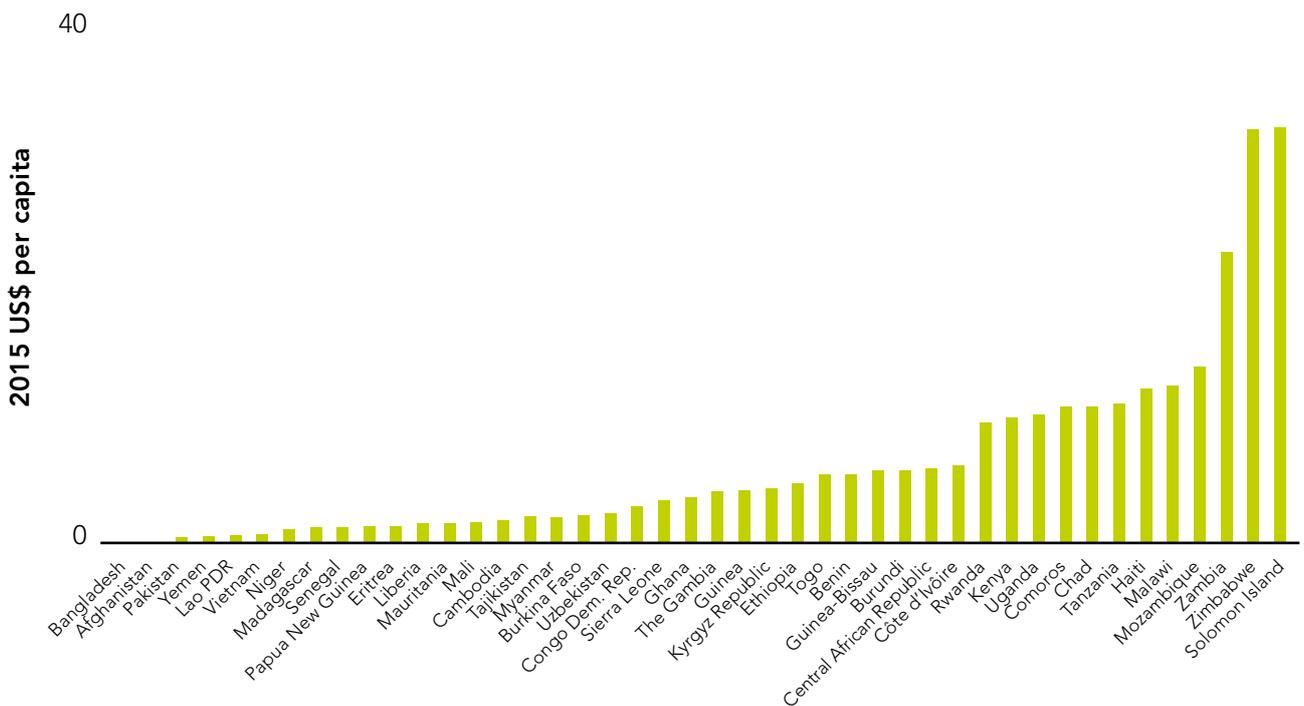
space for the UNAIDS estimates of the cost of HIV/AIDS interventions – with the noteworthy exceptions of the highlighted countries.

However, the UNAIDS recommendations, like the WHO norm, MBB and CMH, are medium term investment plans. Their 2015 cost recommendations are assuming certain previous investments have already been made. Further work needs to compare total UHC expenditure recommendations over a time period to total UNAIDS recommendations over a time period to properly verify that there is space in UHC fiscal needs estimates for HIV/AIDS fiscal needs estimates.

F.1.1.3 MCINTYRE AND MEHETUD TARGET - COUNTRY SPECIFIC 2015 UHC RECOMMENDED EXPENDITURE

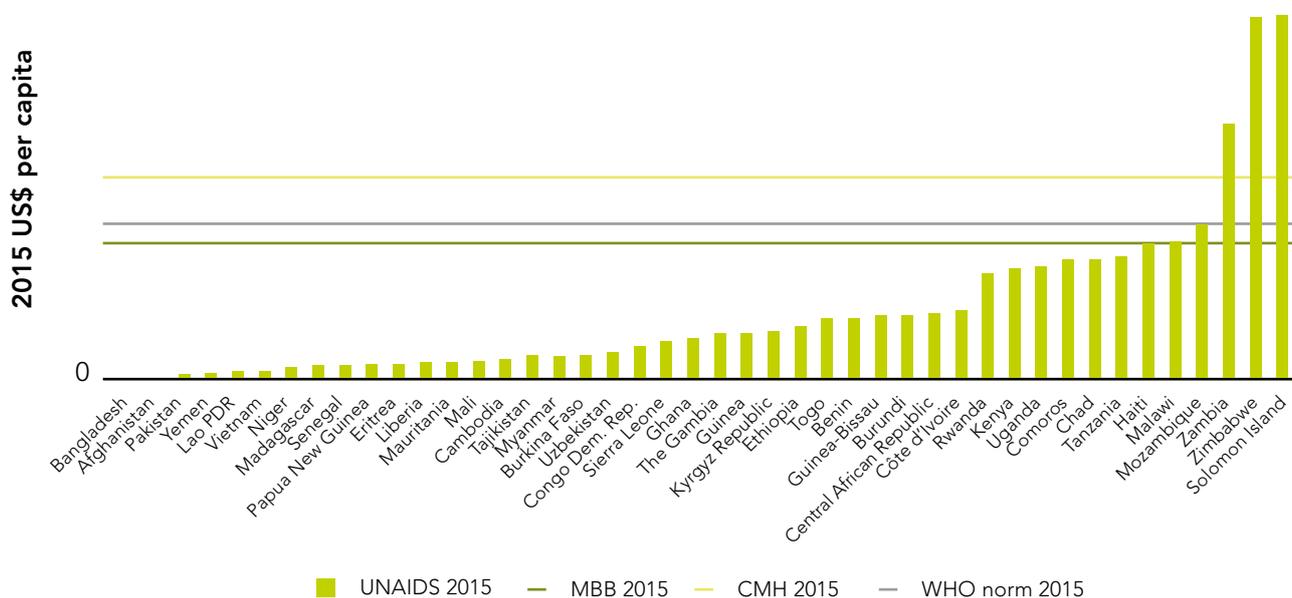


F.1.2 UNAIDS 2015 RECOMMENDED EXPENDITURE ON HIV/AIDS INTERVENTIONS



F.1.3.1 FISCAL NEEDS FOR HIV/AIDS IN 2015

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There are a number of points to be made from these comparisons. One, for only six of the 49 countries is 5% of expected GDP per capita greater than \$100. This highlights that the double target is in fact a single target in most low income countries. By extension, it emphasises that in order to afford a publically funded minimum basic package for UHC, governments in low income countries either need to spend more than 5% of GDP on health, or need external resources to supplement government expenditure.

Two, the UNAIDS recommended expenditures vary significantly across countries, reflecting the relative scale of the HIV epidemic. The fiscal need for HIV/AIDS responses is much larger in some countries than in others.

Three, while there may be fiscal space for HIV/AIDS expenditure recommendations

within total health sector UHC expenditure recommendations in the majority of the 49 low income countries, there is not in some key countries. The UNAIDS minimum expenditure recommendation for HIV/AIDS response interventions in Zimbabwe and the Solomon Islands, for example, is close to 35% of the total minimum recommended expenditure for UHC. In Zambia it is 25%, and in Mozambique it is 15%. Bearing in mind that the CMH, MBB and WHO norm allocated between 12% and 18% of their fiscal needs estimate to HIV/AIDS responses, there may not be enough space in these estimates. However, it should also be highlighted that HIV/AIDS interventions are not the jurisdiction of health sectors alone. For countries where fiscal need for HIV/AIDS interventions amounts to 20% of the total fiscal need for UHC, if other sectors take on some of the burden, there may be enough space.

Four, the UNAIDS minimum recommended expenditure on HIV/AIDS interventions in those countries with the lowest incomes (Malawi, Burundi and the Central African Republic) is a significant proportion of GDP on its own.

3 Fiscal space

Figure 2.1 plots THE, government expenditure on health, external resources for health, out of pocket expenditure on health (OOP) and private expenditure on health (non OOP) per capita, aggregated across the 49 countries used in the MBB and WHO norm⁷. This is to show how much funding was available from all sources for health care between 1995 and 2012.

GDP, population, THE as a % of GDP, external resources as a % of THE, general government expenditure on health (GGEH) as a % of THE, private expenditure as a % of THE and out of pocket expenditure on health (OOP) as a % of THE are all taken from the World Health Organisation's Global Health Expenditure database⁸. These are combined to calculate THE, external resources for health (donor), GGEH, OOP and private non-OOP expenditure per capita. External resources for health have then been subtracted from GGEH to calculate government expenditure on health, and OOP have been subtracted from private expenditure to calculate private non-OOP expenditure on health (insurance payments). This is to avoid double counting.

After doing this, the sum of government expenditure on health, external resources for health, OOP and private non-OOP is approximately equal to THE estimates. They are not exactly equal for a number of reasons. Not all external resources for health

This accentuates the need for international financial assistance to fund health sectors in very low income countries, which have to find resources for a wide variety of health sector investments beyond HIV/AIDS responses.

are directed through the public health system, for example, so actually it should be partly subtracted from GGEH and partly subtracted from private expenditure on health. However, as such a small proportion does not go through the public health system it is considered negligible.

All estimates are expressed in current US\$ and per capita. Inflation is addressed in sections 3 and 4, where fiscal space is compared to fiscal need. Nonetheless, it is important to be aware that changes discussed are nominal rather than real.

According to WHO national health accounts estimates, nominal THE aggregated across the 49 low income countries overall remained constant between 1995 and 2001. Since 2001 it has grown consistently, at rates between 2-26% annually. It grew from \$16 in 1995 to \$53 in 2012.

Government expenditure on health fell significantly in the run up to the millennium, but, other than in 2008, grew each year between 2002 and 2012 at between 6-33%. Overall per capita government expenditure on health aggregated across the 49 countries grew from \$5 in 1995 to \$14 in 2012.

OOP expenditure also fell in the run up to the millennium but grew significantly since, particularly up to 2008. Between 2002 and

⁷ The 49 countries are grouped into one unit, so all absolute numbers are summed. For example, 5% of GDP per capita is 5% of the sum of all GDPs divided by the sum of all populations.

⁸ Accessible at <http://apps.who.int/nha/database/Select/Indicators/en>

2006 OOP grew at between 12-32% annually, but slowed to 1-9% in the run up to 2012. This resulted in an overall growth from \$10 per capita in 1995 to \$27 per capita 2012.

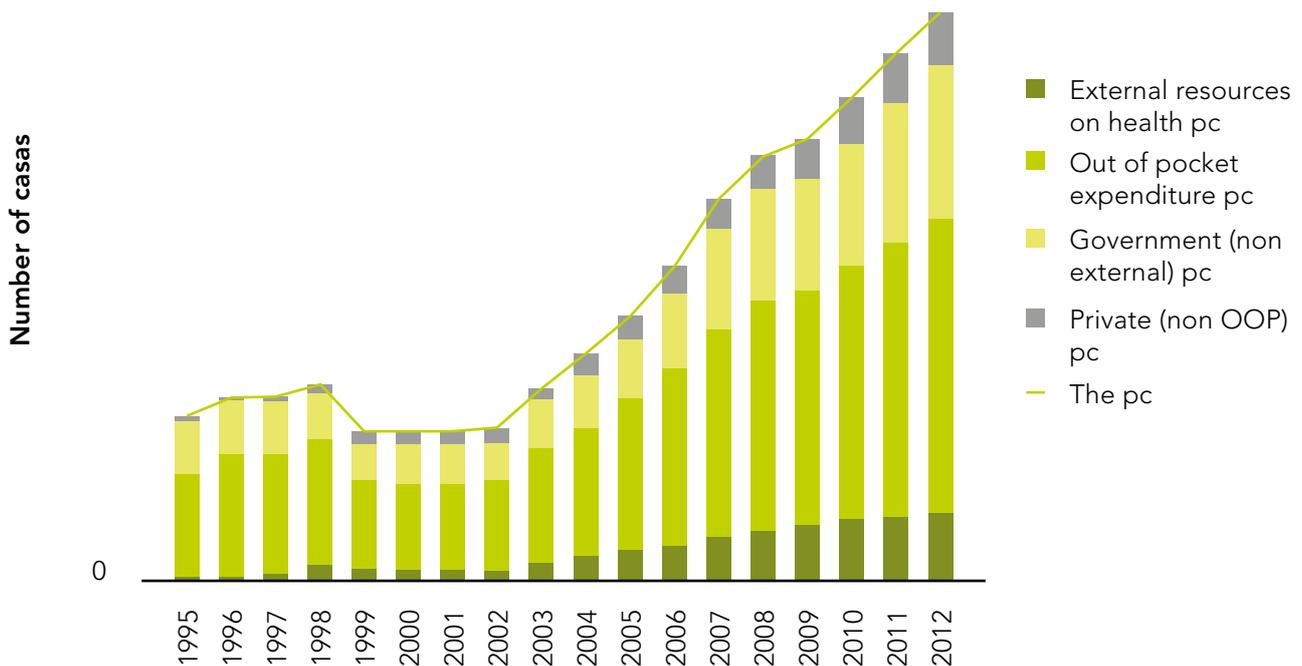
2002 and 2008, when growth ranged between 11% and 31%. External resources for health grew from \$0.60 per capita in 1995 to \$7 per capita in 2012.

Other than between 1998 and 2000, external resources for health (donor funding) grew each year between 1995 and 2012. 1997 saw the largest growth (87%), which was followed by a decline in the three consecutive years. The largest sustained growth was between

Private non-OOP (private insurance plans etc.) have grown each year other than 1998. In particular, between 2003 and 2007 growth ranged between 14% and 24%. Overall, this was a growth from \$0.90 per capita in 1995 to just under \$5 per capita in 2012.

F.2.1 THE PC 1995-2012 WB 49 LIC (WHO DATA)

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As a proportion of THE, OOP was always the most significant contributor, however its share decreased from 61% to 51%. Government expenditure on health as a % of total expenditure on health also fell,

from 30% to 26%. The proportion of funds sourced from external resources and private non-OOP grew from around 5% each to 9% from private non-OOP and 13% from external resources.

4 Fiscal needs versus Fiscal space

4.1 Was there fiscal space for an integrated UHC and HIV/AIDS response between 1995 and 2012?

Figure 3.1 is the same as figure 2.1, but also shows 5% of GDP per capita and the WHO norm estimate of the cost of basic health care. As described in section 1 and annex B, this is inflated and deflated from 2005\$ using the IMF emerging market and developing economy inflation rates.

There are three key points to make from this graph regarding whether there was fiscal space for UHC and HIV/AIDS between 1995 and 2012.

First, government expenditure on health in the 49 countries was not close to 5% of GDP. Over the period it grew from around 1% to around 2% - highlighting that the countries were not close to achieving even the lower limit of McIntyre and Meheus' target.

Second, THE was close to 5% of GDP, and slightly larger since 2003. Arguably, this suggests a revealed demand for health care of between 5% and 6% of GDP (the social demand for health care, across all sources of funding). Similar analysis has suggested that the global revealed demand for health care is about 7.2% of GDP, with an elasticity of about 1.05 (OPM, 2015). This suggests that THE increases slightly faster than GDP, such that it represents an increasing proportion of GDP as countries get richer. As well as because of a positive income elasticity of demand for health care, it may be reasonable to suggest that revealed demand for health care as a % of GDP is lower in lower income countries because the quality of services on offer is lower.

This also highlights that the challenge of spending 5% of GDP on public health care (the

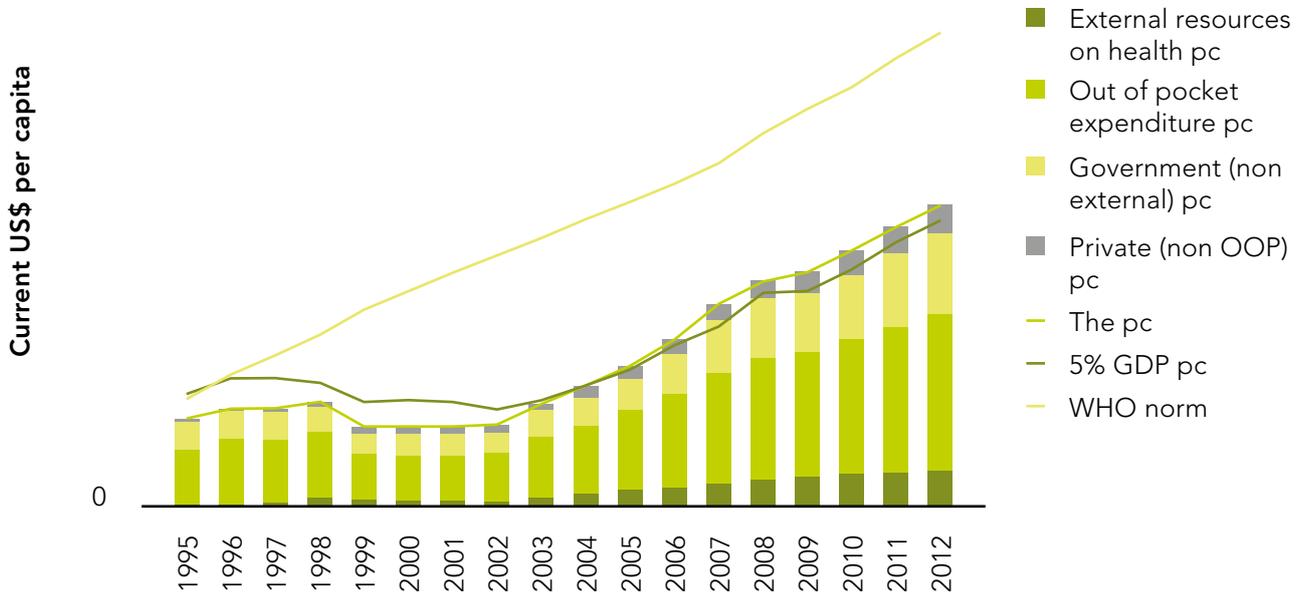
first part of McIntyre and Meheus' double target) may not be so much an issue of how to spend 5% of GDP on health (it is already being spent on health) – but an issue of how to coordinate that expenditure (how to turn the out of pocket payments into insurance prepayments and public contributions) to protect people against impoverishing and catastrophic health care bills and redistribute between different groups. However, it is also important to note that THE per capita includes a significant amount of expenditure that is not targeting UHC or HIV/AIDS responses. Even with the provision of UHC, private individuals may still choose to spend significant amounts for better quality health services for themselves and their families. If UHC is estimated to cost 5% of GDP, then THE is expected to be greater than 5% of GDP. So, THE must be larger than fiscal need for an integrated UHC and HIV/AIDS financing system – as THE covers more than basic UHC provision. This is particularly true when a large portion of THE is from OOP. A key component of UHC is financial protection, and expenditure through OOP does not provide financial protection, nor is it spent on cost-effective services alone.

Third, and perhaps most importantly, health expenditure has not grown as much as prices have since 1995. If health sector costs have grown at similar rates to prices in the rest of the economy (as this report assumes they do, for lack of health sector specific inflation rates), then the cost of a basic package of care for UHC or HIV/AIDS will have grown faster than health expenditure. Adjusting for inflation to express expenditure in real terms then reveals that, if health sector costs have inflated at comparable rates to prices in the rest of the economy, the purchasing power of total expenditure on health actually decreased between 1995 and 2012.

F.3.1

FISCAL SPACE VS FISCAL NEED 1995-2012

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Overall, it is clear that, since 1997, neither 5% of GDP nor government plus donor expenditure on health aggregated across the 49 countries have been enough to afford a basic package of care. Even THE was too small to cover the cost of McIntyre and Meheus’ recommendation. Between 1995 and 2012 the gap between THE per capita and WHO norm recommended expenditure per capita (once inflated and deflated to the relevant years) grew from \$3 to \$30. As a proportion of total resource needs, THE was at its lowest compared to resource needs at 33% in 2003. It then rose again to 68% - but this still left a 32% shortfall, in total representing \$44 billion across the 49 countries in 2012 alone (2012\$).

When we focus on government expenditure plus external resources for health (more appropriate for UHC as it also offers financial protection), the resource gap grew from \$13 per capita in 1995 to \$63 in 2012. They represented their highest proportion

of total needs in 1995 (30%), but fell in the following years, troughing in 2002 at only 11%, and since rising again, meeting 25% of total resource needs in 2012. In total this represented a resource gap of \$94 billion in 2012 (2012\$).

In summary, government plus donor expenditure on health in the 49 countries between 1995 and 2012 was not nearly enough to afford a basic package of care for UHC or, by extension, a basic package of UHC with space for an adequate HIV/AIDS response interventions within it. Even THE was not enough to cover the cost of UHC, and this is without the provision of financial protection. THE, government expenditure and external resources for health have all grown since 1995, but have grown slower than the cost of care is estimated to have grown. As such, the absolute resource gap actually grew year on year up to 2012, and UHC with adequate HIV/AIDS response interventions became less and less affordable towards the end of the period.

5 How was health expenditure per capita related to GDP per capita between 1995 and 2012?

Using the same dataset that was used in sections 2 and 3, this section uses scatter plots of THE, government expenditure on health, external resources for health, OOP and private non-OOP per capita against GDP per capita for the 49 low income countries used in the MBB and WHO norm costings between 1995 and 2012. Unlike sections 2 and 3, however, in section 4 data is not aggregated across countries. This means that there is one line of data for each country and each year. A second dataset (from the same database) is used to produce the same scatter plots for all countries globally (used for comparison). Power regression lines of best fit (LBF) are then calculated for each set (global and the 49 low income countries). The LBF are calculated with the equation

$$y = ax^b$$

Where b is the elasticity of either the THE or the individual financing source per capita with respect to GDP per capita. Missing or zero values were excluded from the dataset. This has particular implications for the private non-OOP and external resources scatter plots.

5.1.1 Government expenditure on health

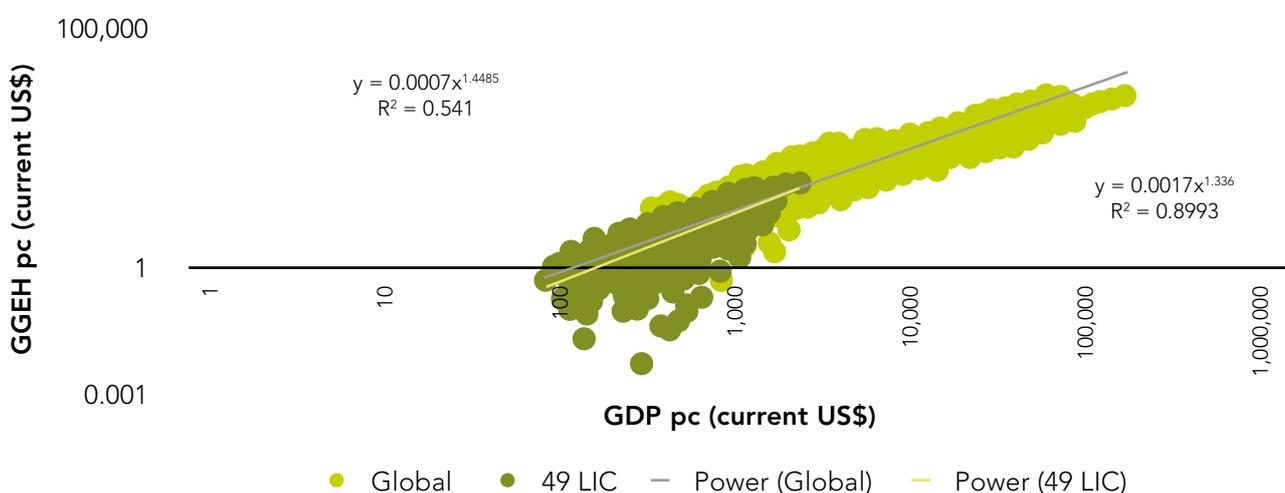
For the 49 LIC countries referred to throughout this report the LBF (power) is estimated as:

$$y = 0.0007(x)^{1.4485}, \text{ with } R^2 = 0.541$$

The low R^2 highlights that this LBF does not capture a strong relationship. The higher R^2 found for the LBF through the global dataset (0.8993) highlights that GDP per capita may be a poorer predictor of government expenditure on health per capita at lower income levels than higher ones. It is clear from figure 4.1.1 that there is a lot of variation about the LBF towards the left of the line, but less as GDP rises.

With this concern in mind, the LBF suggests that, for the 49 LIC, between 1995 and 2012, government expenditure on health pc was positively correlated with GDP per capita, with an elasticity of about 1.5, suggesting that it grew 50% faster than GDP per capita.

F.4.1.1 GOV. EXP ON HEALTH PC BY GDP PC



5.1.2 OOP

The same was done for OOP per capita (figure 4.1.2).

For the 49 LIC countries the LBF (power) is estimated as:

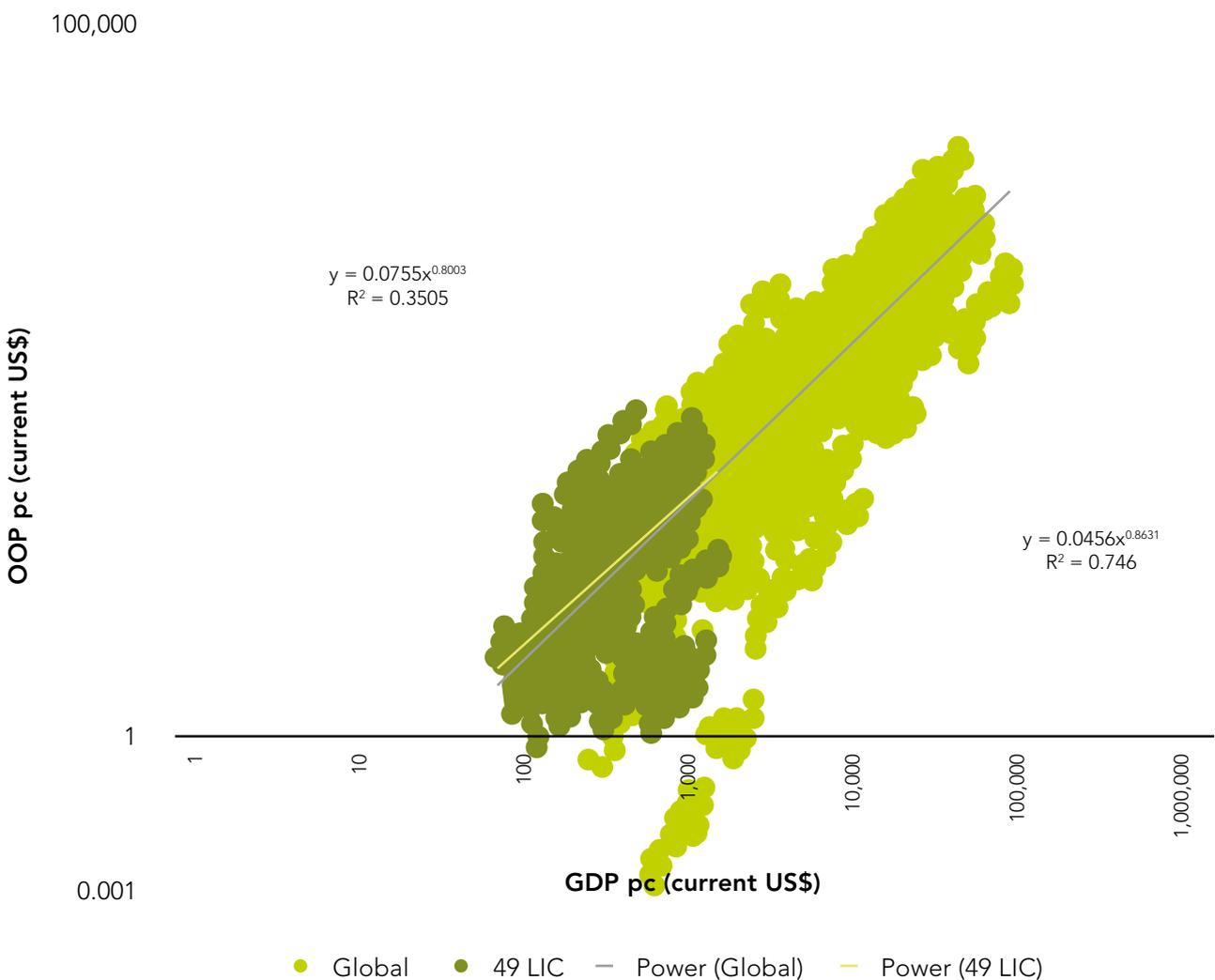
$$y = 0.0755(x)^{0.8003}, \text{ with } R^2 = 0.3505$$

Again, the low R^2 highlights that there are significant problems with using GDP

per capita to estimate OOP per capita. Also, the higher R^2 calculated for the LBF through the global dataset (0.746) may suggest, again, that GDP per capita better explains OOP per capita as incomes rise.

With this concern in mind, the LBF for the 49 LIC suggests that OOP per capita was positively correlated with GDP per capita between 1995 and 2012, with an elasticity of 0.8. So, OOP per capita grew with GDP per capita, but only 80% as fast.

F.4.1.2 OOP PC BY GDP PC



5.1.3 External resources for health

The same was done for external resources for health per capita (figure 4.1.3). Here countries receiving no external resources for health were excluded to enable the power line of best fit to be calculated. This has implications on the global dataset, changing the question to 'of the countries that received external resources, what was the relationship with GDP?' In other words, many high income countries with zero external resources for health are excluded.

For the 49 LIC countries the line of best fit (power) is estimated as:

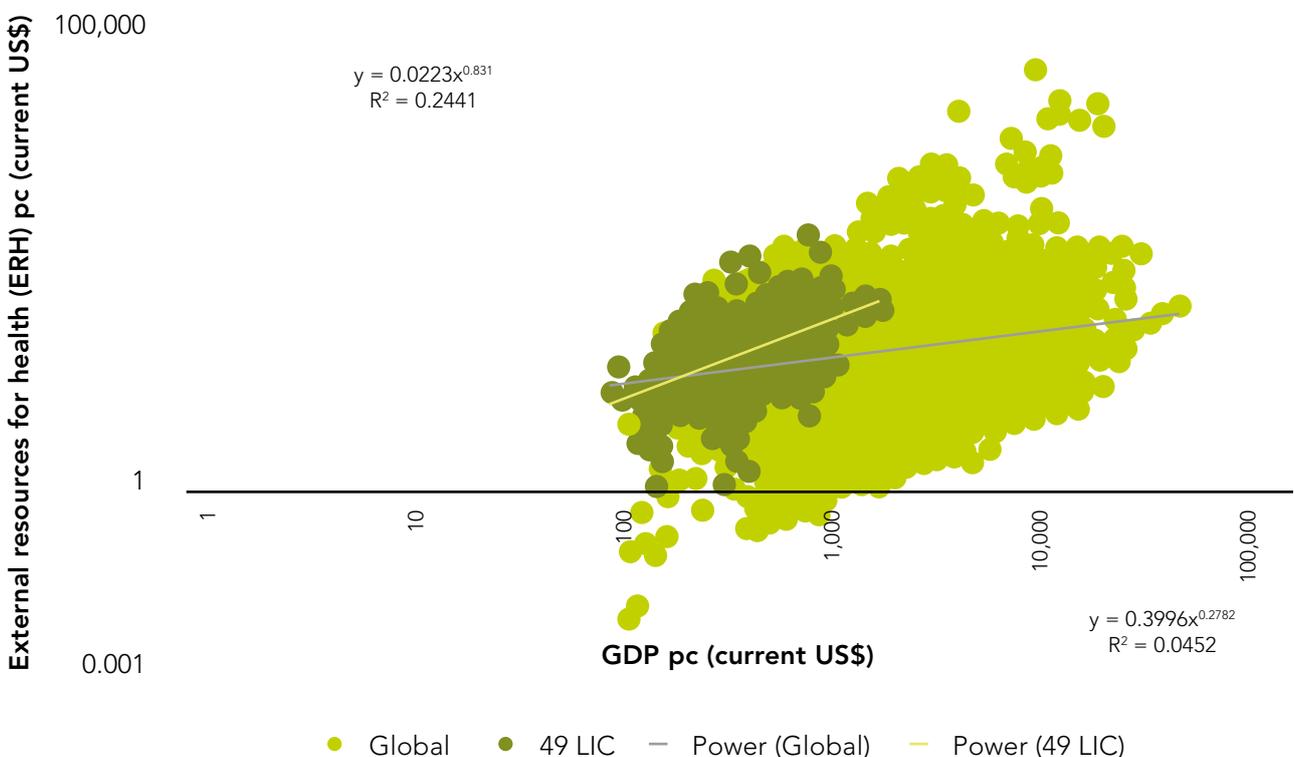
$$y = 0.0223(x)^{0.831}, \text{ with } R^2 = 0.2441$$

Once again, the low R^2 should serve

as a warning when interpreting this LBF. However, this time it may be that GDP per capita becomes worse at explaining external resources for health per capita as incomes rise. The R^2 value for the LBF through the global dataset (0.05) is lower than that for the 49 country dataset. This makes intuitive sense, as low income countries generally receive external resources for health because they are low income. As countries get richer, they may receive external resources for health for other reasons, and income becomes less of an explanatory variable.

The LBF for the 49 LIC suggests that between 1995 and 2012 external resources for health per capita were positively correlated with GDP per capita, but with an elasticity of 0.831 (they only grew 83% as fast as GDP pc).

F.4.1.3 GDP BY ERH PC



5.1.4 Private (non-OOP)

When done for private non-OOP expenditure on health per capita, as with external resources for health, countries with no private (non-OOP) expenditure on health were excluded from the analysis to enable calculation of the power LBF (figure 4.1.4).

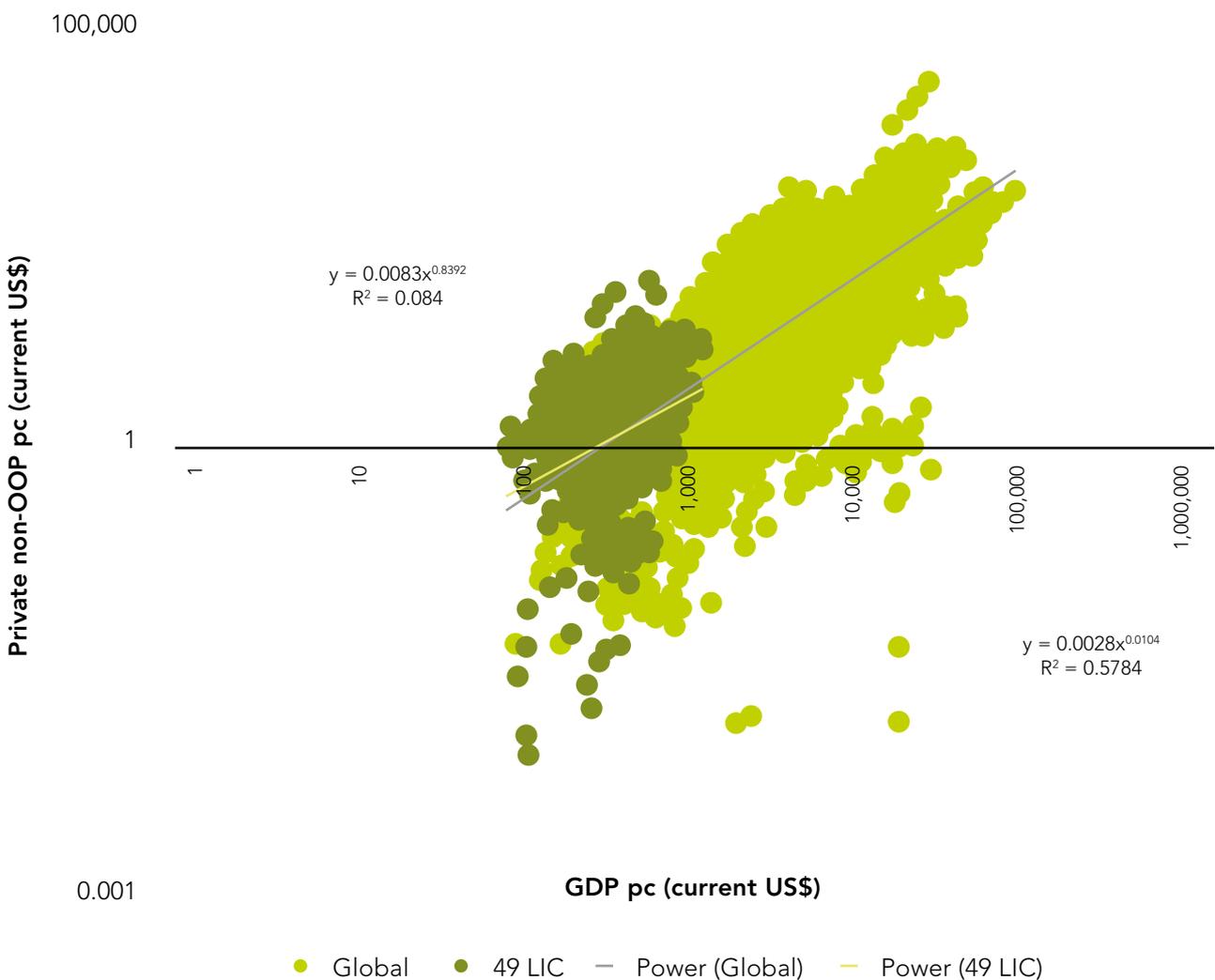
For the 49 LIC countries the line of best fit (power) is estimated as:

$$y=0.0083(x)^{0.8392}, \text{ with } R^2=0.084$$

Again, the low R^2 value is a warning when interpreting this LBF.

Private non-OOP expenditure on health per capita was positively correlated with GDP per capita over the period, with an elasticity of 0.83. So, it grew with GDP per capita, but only 83% as fast.

F.4.1.4 PRIVATE NON-OOP PC BY GDP PC



5.1.5 Total health expenditure

When calculated for THE per capita (figure 4.1.5) the 49 LIC countries the line of best fit (power) is estimated as:

$$Y=0.0499(x)^{1.0099}, \text{ with } R^2=0.7539$$

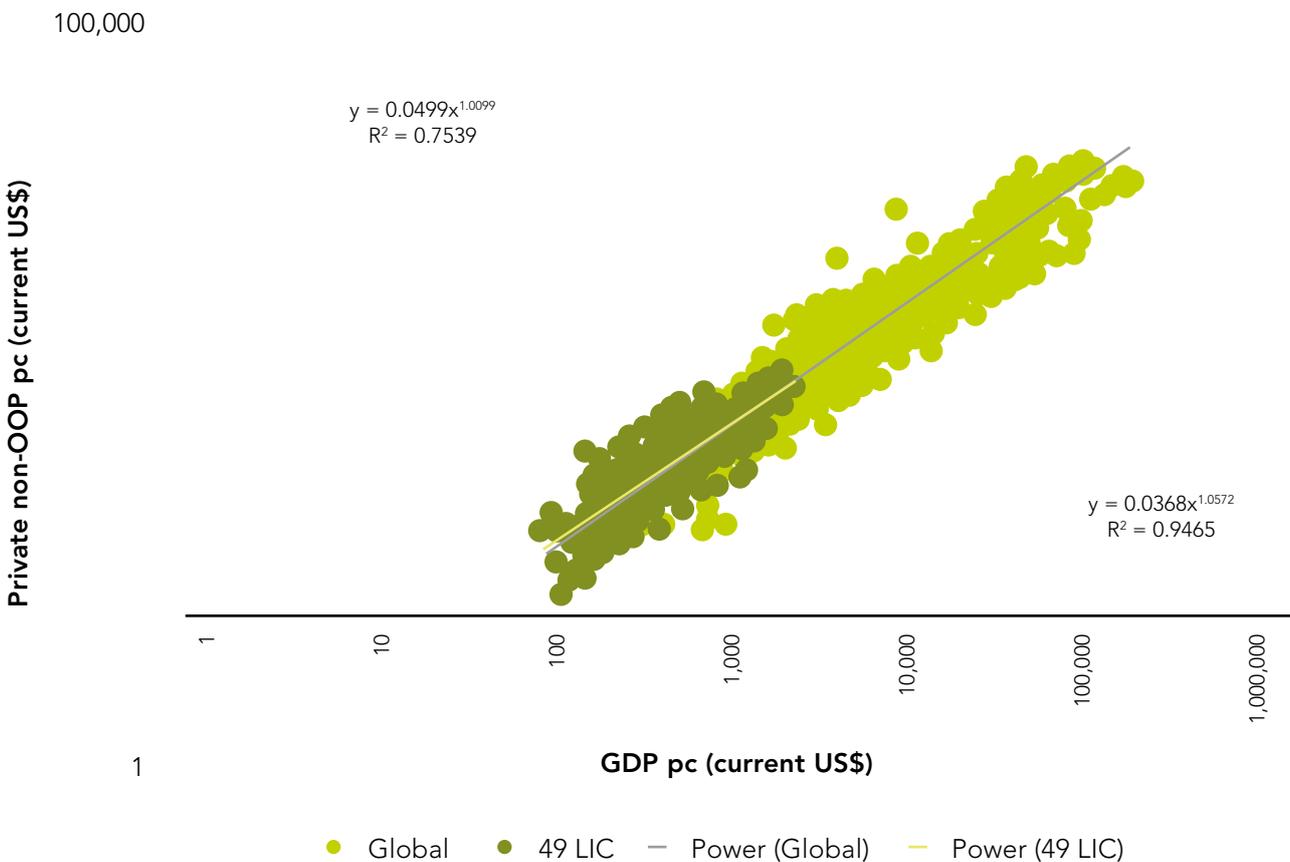
This is a much higher R^2 value than was found for any of the four financing sources. While GDP per capita may be a poor explainer or the individual financing sources, it may be a more adequate tool for explaining THE per capita.

Over the period THE per capita was positively correlated with GDP per capita,

with an elasticity of 1.001. This means that it grew 0.1% faster than GDP. This is backed up by a more rigorous econometric analysis of the determinants of health expenditure, which found that income elasticity of total health expenditure in low income countries was close to one (Zu & Saksena, 2011).

That the coefficient on x is approximately 0.05, the elasticity is so close to 1 and the R^2 is relatively high suggests that THE in the 49 LIC has been close to 5% of GDP on a country specific level. This corroborates our finding that THE per capita aggregated across the 49 low income countries was consistently close to 5% of GDP over the period (as argued in section 3).

F.4.1.5 THE PC BY GDP PC



The analysis done in this section is very rudimentary, and should be updated with more sophisticated econometric methods (as done in (Zu & Saksena, 2011)). In particular, it may suffer from omitted variable bias, and that all variables are expressed per capita means that it is impossible to identify what effect should be attributed to changes in GDP and what to changes in population. Moreover, the higher R^2 observed for the global data

sets may be a result of the larger data sets rather than improved explanatory power. As a next step more rigorous analysis should be done on this dataset to explore the causes of fluctuating fiscal space for the provision of health care. The most reliable conclusions to draw from this analysis is the correlation between the variables. In particular, the strong correlation between GDP per capita and THE per capita is noteworthy.

6 Assuming business as usual alongside the IMF GDP and population projections, what THE per capita do we expect by 2019?

As part of the World Economic Outlook produced by the IMF, projections up to 2019 are published for population and GDP. This section assumes these projections, and, based on the LBFs outlined in section 4, explores what may happen if THE per capita and each of the four financing sources continue to move with GDP per capita as they did between 1995 and 2012.

As highlighted throughout section 4, GDP per capita has a low R^2 when used to explain any of the four general health financing sources (government, external resources, OOP and private non-OOP) in the 49 LIC referred to in this report. However, when used to explain THE per capita it has a much higher R^2 value.

The LBF for the relationship between THE per capita and GDP per capita between 1995 and 2012 is used to estimate THE per capita between 2013 and 2019, based on GDP and population projections published by the IMF (figure 5.1).

The LBF for each of the financing sources between 1995 and 2012 are also used

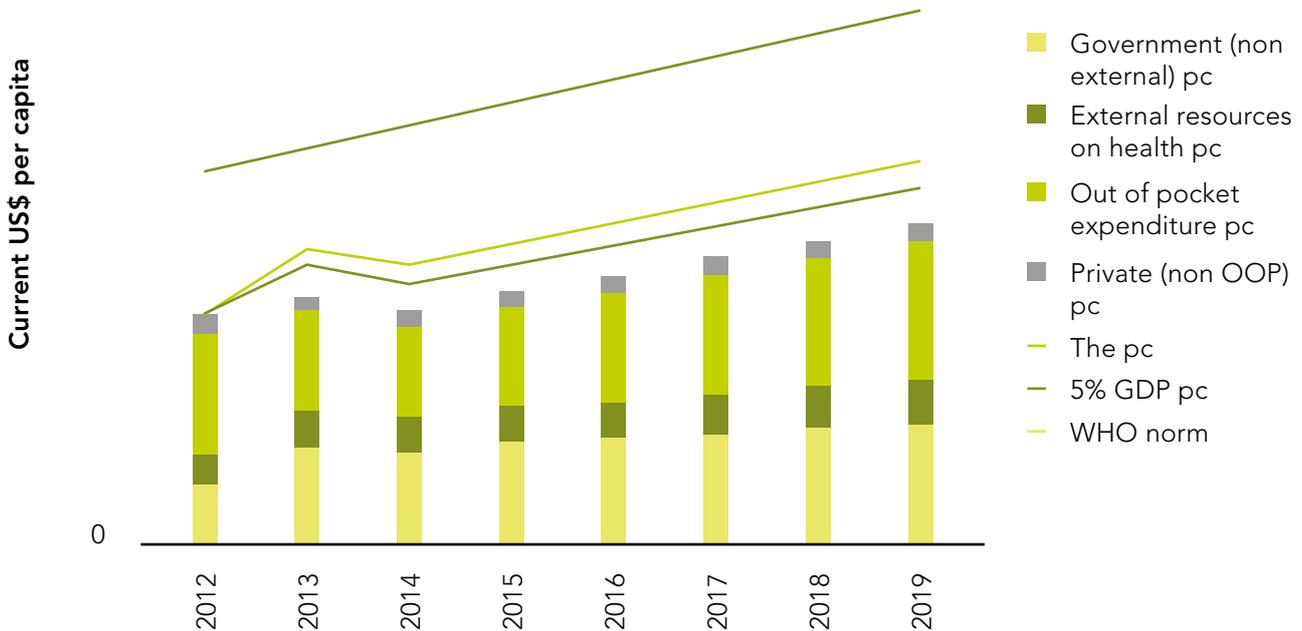
to estimate their growth between 2013 and 2019, and make some comment on expected financing source break down into the near future. However, the uncertainty that arises due to the variability in each of the correlations (clear from the low R^2 values) demands significant caution when using these particular findings. Further, more rigorous econometric analysis should be done to explore these questions.

If THE per capita continues to grow with GDP per capita as it did between 1995 and 2012, then, assuming the IMF projected GDP and populations estimates, it may grow from around \$53 in 2012 to around \$87 in 2019. Extrapolations on the four financing sources suggest that government expenditure on health per capita may grow to around \$28, OOP per capita may grow to around \$31, external resources for health per capita may grow to around \$10 and private (non-OOP) may grow to around \$4. This does not sum to \$87, which may be due to the poor explanatory relationships between GDP per capita and the four financing sources per capita (figure 5.1).

F.5.1

FISCAL SPACE AND FISCAL NEED PROJECTIONS 2012 TO 2019

150



While the regressions project a bump in 2013 due to the projected bump in GDP (it is not yet clear whether this materialised), this analysis suggests that the resource gap will continue to grow, basically because we expect the cost of a basic package of care to rise faster than we expect expenditure on health to grow. By 2019 we expect the resource gap between THE and the WHO norm to have reached \$55 billion across the 49 countries (or \$34 per capita). As a proportion of total resource needs, this does suggest that the gap is shrinking (from 35% in 2013 to 33% in 2019), but this may only be the result of both fiscal space and fiscal needs being expected to grow faster than the gap between them. In total, present value of the resource gap between THE and fiscal needs between 2015 and 2019 is estimated to be \$240 billion (2015\$).

As already mentioned, THE per capita includes expenditure not necessarily targeting UHC or HIV/AIDS response interventions and does not capture the financial protection necessary for the provision of UHC. For this reason the combination of government and donor resources is a more realistic estimate of the relevant fiscal space. If we focus on government expenditure and external resources, the gaps are much larger. By 2019 we expect the resource gap between the WHO norm and government plus donor expenditure to have reached \$132 billion across the 49 countries (\$83 per capita). This means that fiscal space is only 32% of fiscal need (when private expenditure is excluded). In total, the present value of the resource gap between non-private fiscal space and fiscal needs for UHC between 2015 and 2019 is estimated to be \$550 billion (2015\$).



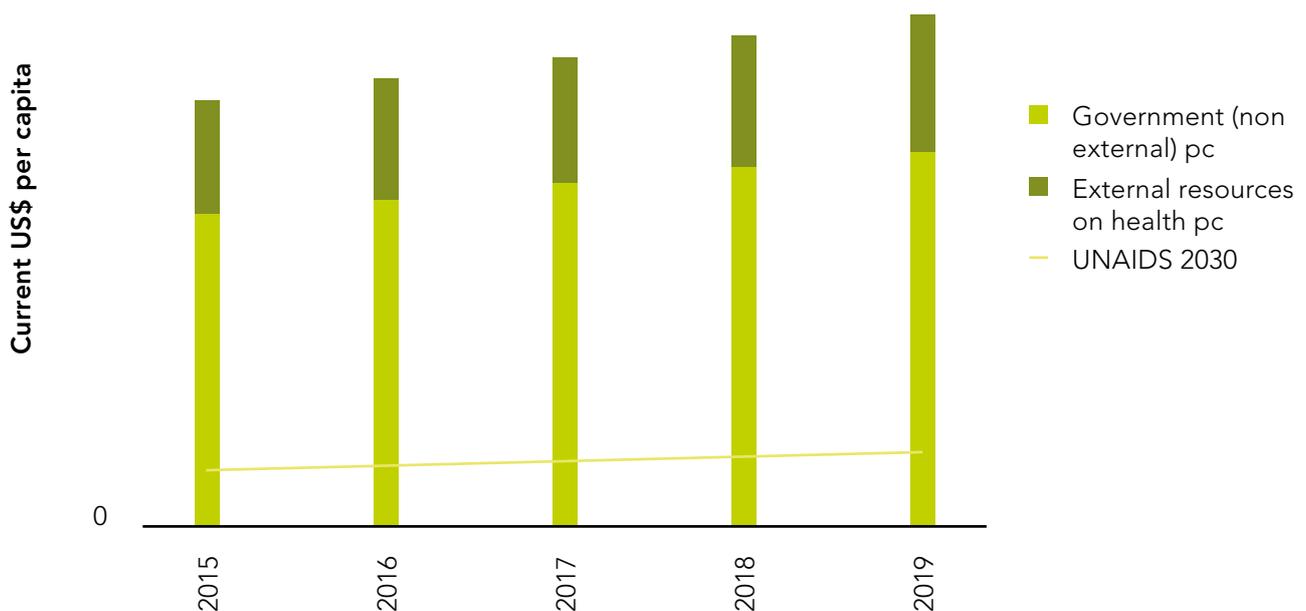
However, as mentioned in section 1, the CMH, MBB and WHO norm estimated costs of HIV/AIDS responses are larger than those estimated by UNAIDS. Comparing UNAIDS estimated fiscal need to our estimates of fiscal space up to 2019 highlights that, if realistic, there may be space on an aggregate level across the 49 low income countries (figure 5.2). CMH, WHO norm and MBB each allocated between 12% and 18% of the total cost of UHC to HIV/AIDS response interventions. When aggregated across the 44 countries, UNAIDS estimated fiscal need for HIV interventions grows from \$4.40 to \$5.70 per capita. As a share of total projected fiscal space, this is an increase from 14% of estimated fiscal space in 2015 to 15% of estimated fiscal space in 2019 (fiscal space estimated as government plus donor expenditure on health, not THE). Spending

around 15% of the budget for UHC on HIV/AIDS is consistent with the CMH, MBB and WHO norm costings, and so the UNAIDS estimated recommended expenditure on health may be feasible.

While UHC as costed by the MBB, WHO norm or CMH may not be affordable given the resources available, a revised benefits package including the UNAIDS recommended response interventions may be affordable (at the aggregate level). Further work needs to be done to assess this on a country specific basis, as highlighted in section 1, fiscal need for HIV/AIDS responses are highly variable across countries, and it may be that it is still not affordable in countries with high prevalence rates and fiscal needs, such as Zambia, Solomon Islands and Zimbabwe.

F.5.2 PROJECTED HEALTH SECTOR FISCAL SPACE AND HIV/AIDS RESPONSE FISCAL NEED

45



In summary so far; estimated minimum costs of universal health coverage do include fiscal space for HIV/AIDS interventions in the majority of low income countries. However, if business continues as usual, low income countries will not have nearly enough fiscal space for UHC as costed by the CMH, MBB

or WHO norm. However, when UNAIDS estimated fiscal needs are compared to estimated fiscal space, it may be more feasible. It may be that a revised benefits package that includes the basic package of HIV/AIDS response interventions could be affordable.

7 Discussion: considerations given limited resources

Given the exceptionally tight budget constraint for the provision of UHC as well as HIV/AIDS interventions, there are at least four issues that need to be addressed. First, for some countries with poor health outcomes, improving efficiency may be more fruitful than increasing expenditure. Second, where countries are currently borrowing below a sustainable amount, it may be appropriate to borrow to invest in health sector capital such as hospitals. This demands significant regulation and oversight, but, if well managed, given that future generations will benefit from investments in health today it may be justifiable to expect future generations to play a part in paying for that investment too. Third, where health expenditure is low, opportunity costs are high. In order to spend limited resources efficiently the benefit from expenditure should be greater than its opportunity cost. Cost-effectiveness analysis may be a useful tool for exploring this. And fourth, this paper has focused on whether there may be fiscal space for integrated financing of UHC and HIV/AIDS interventions. But what could an integrated financing system actually look like?

7.1 Efficiency savings

In an effort to achieve better health outcomes through improved health service

delivery, WHO has called for a better use of available resources and improved efficiency of health care systems (WHO, 2013). Much work has been done to estimate health system efficiency, including a recent data envelopment analysis (DEA) to estimate the relative efficiency of 173 country health sectors between 2004 and 2011 (Zeng, 2014). This particular study both evaluated the relative efficiency of each country's health sector over an eight year period using direct input and output information and attempted to construct a regression model to highlight the driving forces behind health sector efficiency. Health expenditure per capita was the only input considered. Infant mortality, under five mortality and life expectancy were used as outputs. The regression model included economic and demographic characteristics, health financing mechanisms and governance as potential determinants of technical efficiency.

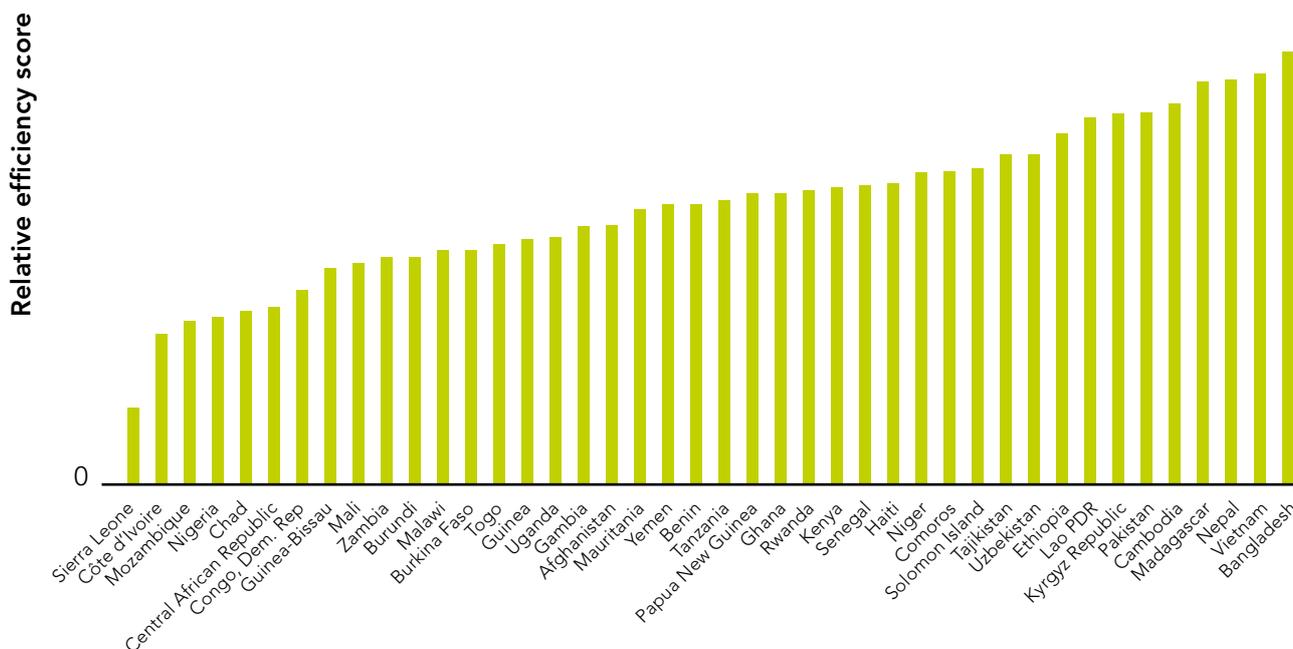
From the DEA two sets of scores were generated for each country. The first is a comparison of each country's efficiency against all other countries in a given year (comparison across eight different efficiency frontiers). The second pools the data from each country and each year. In this model a country's efficiency in a given year is assessed relative to each country in each of the eight years (one efficiency frontier for all eight years' worth of data).

Zeng's analysis includes data from 42 of the 49 low income countries referred to throughout this report. The scores illustrated in figure 6.1.1 are the relative efficiency of the health sectors in 2011 compared to all sampled health sectors for each year between 2004 and 2011. The

large variation in relative efficiencies is clear. Sierra Leone had the least efficient health sector, and was less than 20% as efficient as Bangladesh which, in 2011, was the most efficient sector when compared to all 173 countries in all eight years (figure 6.1.1).

F.6.1.1 HEALTH SECTOR POOLED EFFICIENCY SCORE 2011

1.2



The analysis highlights how countries that spend similar amounts of money on health sectors can experience very different population health status. In 2011 Sierra Leone is estimated to have spent \$161 per capita (international \$) on health, and experienced an infant mortality rate of 120/1000 live births, a child mortality rate of 187/1000 live births and a life

expectancy at birth of 45. Meanwhile, Bangladesh is estimated to have spent \$64 per capita (international \$) on health, but experienced an infant mortality rate of 35/1000 live births, a child mortality rate of 44/1000 live births and a life expectancy at birth of 70. For countries with low efficiency and low health expenditure, strengthening the efficiency of the health

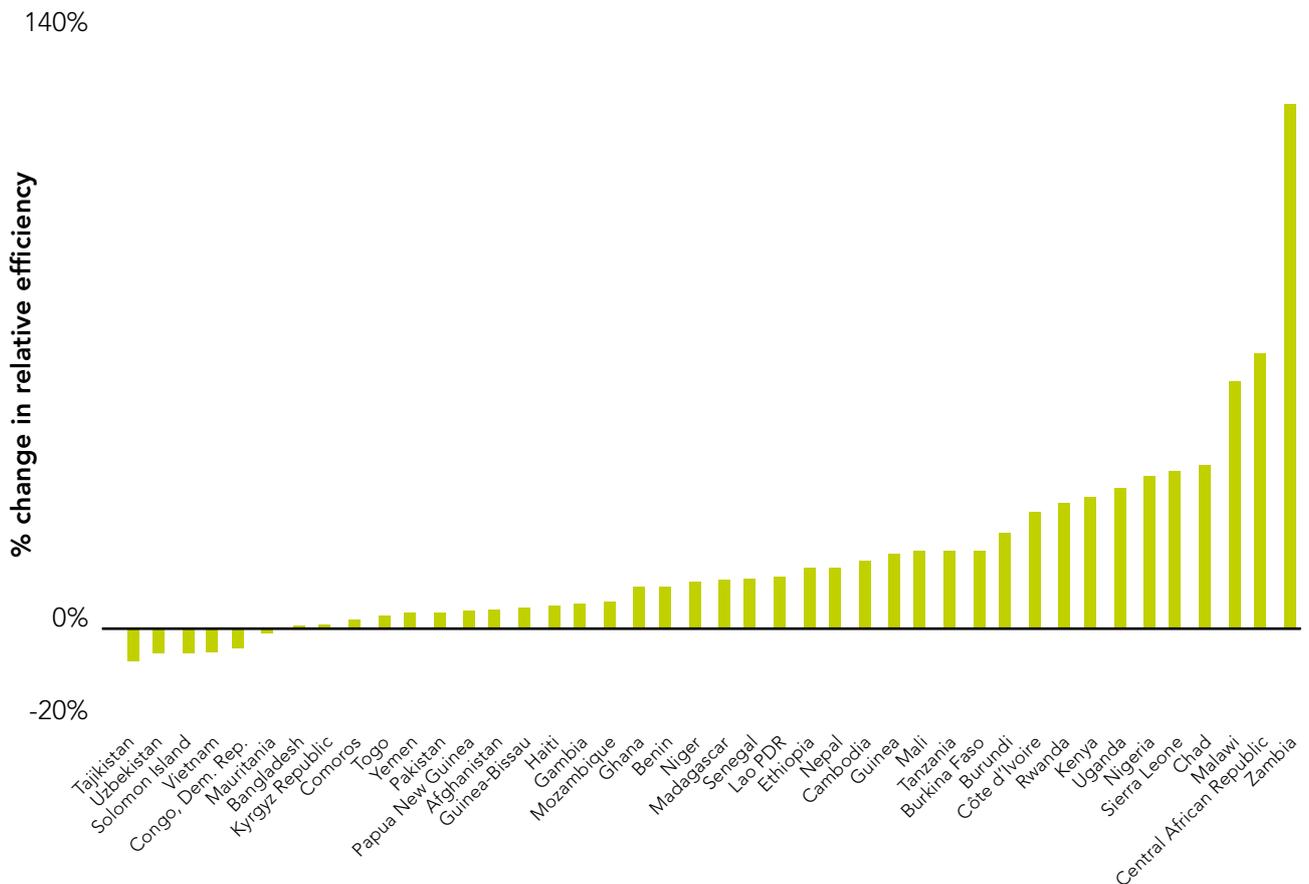
care system may be more important than just increasing health care funding.

of one country's performance over time may be more revealing.

A note of caution regarding this analysis; Sierra Leone and Bangladesh are very different places. If finances are converted into health outputs at different rates between the two, it is not necessarily all about different levels of efficiency. One country may have different needs and constraints, have a different history of health expenditure, or many other factors affecting the rate at which expenditure is converted into health. For this reason comparison between countries should be treated as indicative only, and comparisons

This leads to a positive note. On the whole, the efficiency of health sectors in the 42 countries improved over the eight years (figure 6.1.2). Only six countries were less efficient in 2011 than 2004 when compared to the complete set of 173 countries over all eight years, and each of these (except the Democratic Republic of the Congo) was in general a high performer in terms of efficiency. Countries such as Zambia, The Central African Republic and Malawi all saw large improvements in the efficiency of their health sectors over the period.

F.6.1.2 % CHANGE IN POOLED EFFICIENCY 2004-2011



Zeng goes on to use a regression model to explore the causes of improved efficiency. He finds that, as economic status improved, the efficiency of the health system improved until gross national income per capita reached \$10,000 (2012 international \$), after which point efficiency declined as economic status grew. Urbanisation was also found to positively contribute to health system efficiency, as was a higher share of THE spent through social security mechanisms and a stronger rule of law. Higher HIV prevalence was a burden on efficiency, as was, surprisingly, government health expenditure as a % total government expenditure.

The reason Zeng's analysis is important and relevant to the discussion of this report is that achieving improved health outcomes is not just about increasing fiscal space to meet fiscal need. While there may not currently be enough finances for an integrated health financing system, if the efficiency of health sectors is improved, as is clearly possible, then the feasibility of an integrated health financing system also increases.

7.2 Borrowing

It may also be possible for countries to borrow to invest in health. Increases in productivity due to improved health may cover the cost of borrowing, and, as future generations will garner some of the benefits, maybe they should also pay some of the costs?

It is important to be aware that borrowing does not increase fiscal space overall. It increases fiscal space in the present at the expense of constraining fiscal space in the future. For this reason it is important that strict borrowing guidelines are followed. While it may be a sensible

scheme for financing projects such as hospital construction, it is more difficult to justify for payroll increases or expansions in a benefits package. When borrowing to invest in the health sector, governments should prioritise capital (such as building and equipping facilities) rather than recurrent expenditures (such as paying drug and wage bills). Funding recurrent expenditure through borrowing risks generating unsustainable liabilities for the government.

There are a number of situations where borrowing has been suggested as a sensible policy. One may be to accommodate a shock to government revenue or a spike in expenditure. This might include an armed conflict, a natural disaster or a disease outbreak. It may also occur due to planned development such as the construction of a large hospital. A second instance where borrowing may be considered sensible is where the benefits of public spending occur over long periods of time, spread into future generations. Financing such projects through acquiring debt is a means of collecting contributions from future beneficiaries. Third, some projects generate a high rate of return. It may be that an initial investment generates enough extra fiscal space to repay the loan and more (Haaker, 2014).

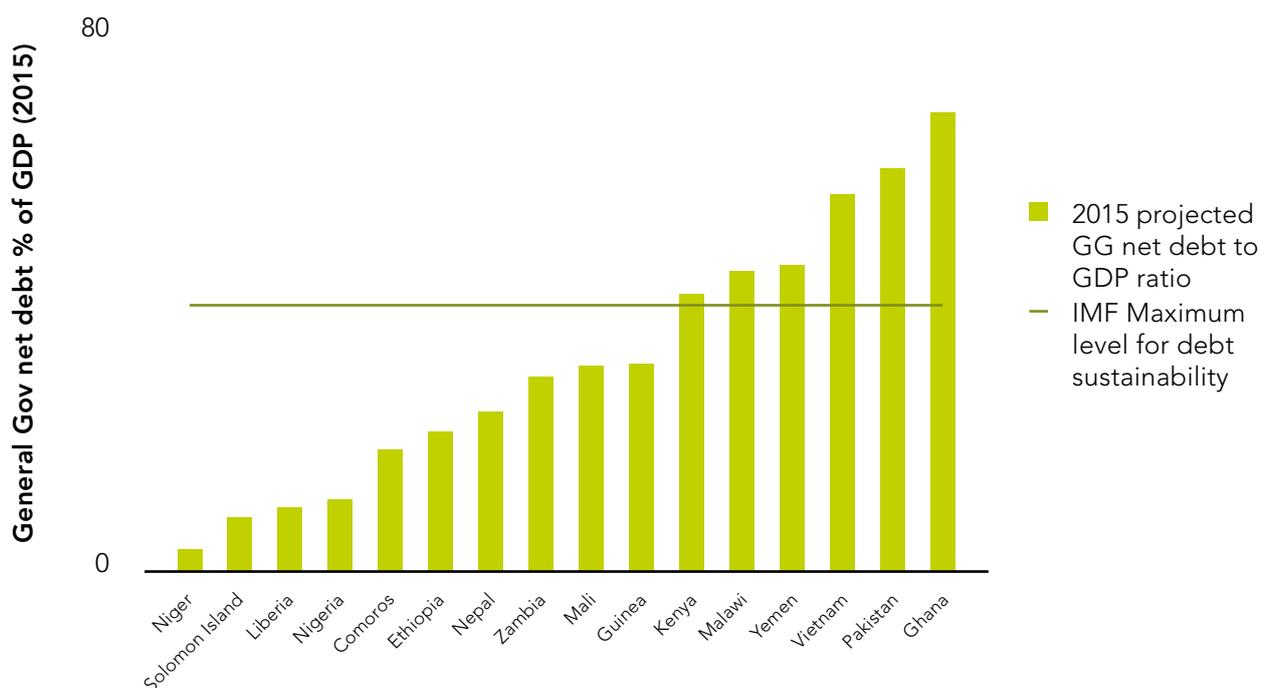
Investments in a health sector can easily fall into any one or all three of these categories. Armed conflicts, natural disasters and disease outbreaks all wreak huge destruction on a health sector, and demand significant investment throughout the rebuilding process. Investing in health today improves the health of future generations through numerous mechanisms, and health interventions that enable people to stay in work or raise healthy children may increase government revenue through tax collections.

The IMF recommends that a medium strength policy of 40% debt/GDP may be sustainable (individual rates are calculated for specific countries, which should overrule the 40% estimate). Beyond a debt sustainability threshold, a country's debt is seen as unsustainable in the long term by the IMF. Other authors will contest this benchmark and suggest higher levels of debt can be sustained. For the sake of this analysis, we err on the side of prudence, and apply the IMF benchmark. If a country is currently borrowing less than its debt

sustainability threshold, however, it may be considered to have capacity to safely borrow.

The IMF's World Economic Outlook includes projected estimates of general government net debt as a % of GDP in 2015 for 16 of the 49 WB LICs. Assuming the 40% rule of thumb, ten of these countries have space to borrow. The remaining six are already borrowing beyond what is considered sustainable for the economy (figure 6.2.1).

F.6.2.1 ROOM FOR BORROWING



Depending on their sustainable debt/GDP ratios, it may be feasible for any of the countries with currently low levels of borrow expand their fiscal space in the present to fund investments through borrowing. It needs to be cautioned, however, that the debt sustainability thresholds vary. In Niger, for example, it

may be lower because they have recently had a large portion of their debt forgiven and may not be considered able to take more debt on at the moment (IMF, 2013). It should also be stressed that borrowing can only offer one off injections of finance, as borrowing simultaneously closes the window until it is paid back.

In the case of HIV/AIDS specifically, the argument for covering a surprise spike in expenditure (such as a natural disaster or armed conflict) is unlikely to hold. HIV/AIDS interventions demand long term spending plans that cover decades. However, more ambitious HIV/AIDS programmes do plan for high expenditure early on with decreasing annual expenditure reflecting smaller demand for expensive treatment in the future (off the back of successful prevention strategies). In this sense HIV/AIDS interventions can also be considered cost saving. Assuming that people living with HIV/AIDS receive treatment, investing in HIV/AIDS prevention strategies cause the reduced future expenditure. This reduced expenditure on HIV/AIDS treatment can be used for loan repayment. Third, HIV/AIDS prevention strategies today decrease future the generation's risk of contracting HIV, thereby benefiting future generations. In these three ways, investment in HIV/AIDS interventions may be considered just cause for borrowing (Haaker, 2014). However, as repeated throughout this report, these decisions must be considered in a country specific context, as the settings vary significantly and impact on the functionality of HIV/AIDS responses.

Finally, borrowing carries significant risks. When money is borrowed on the back of future generations there is a moral hazard cost, where those taking the loan do not bear the full cost of their actions and so may not make the most efficient social decisions. In countries where there are low levels of accountability, both between politicians and citizens and between generations, there is a risk that over borrowing will cripple a country. So, while future generations may benefit from investments in health or HIV/AIDS now, they may also suffer from poor debt management now. The risk of the second needs to be compared to the benefit of the former.

7.3 Resource allocation

Given these tight fiscal constraints, an integrated UHC and HIV/AIDS financing system needs a transparent methodology for allocating resources between interventions. This is true especially when there is not enough money, as low expenditure in a health sector means that opportunity costs are high. Moreover, even if HIV/AIDS and health financing are not integrated in the near future, it is necessary to start conceptualising how they could be. Cost-effectiveness analysis (CEA) of different interventions may be a useful tool for analysing the benefits and opportunity costs of interventions in low income countries.

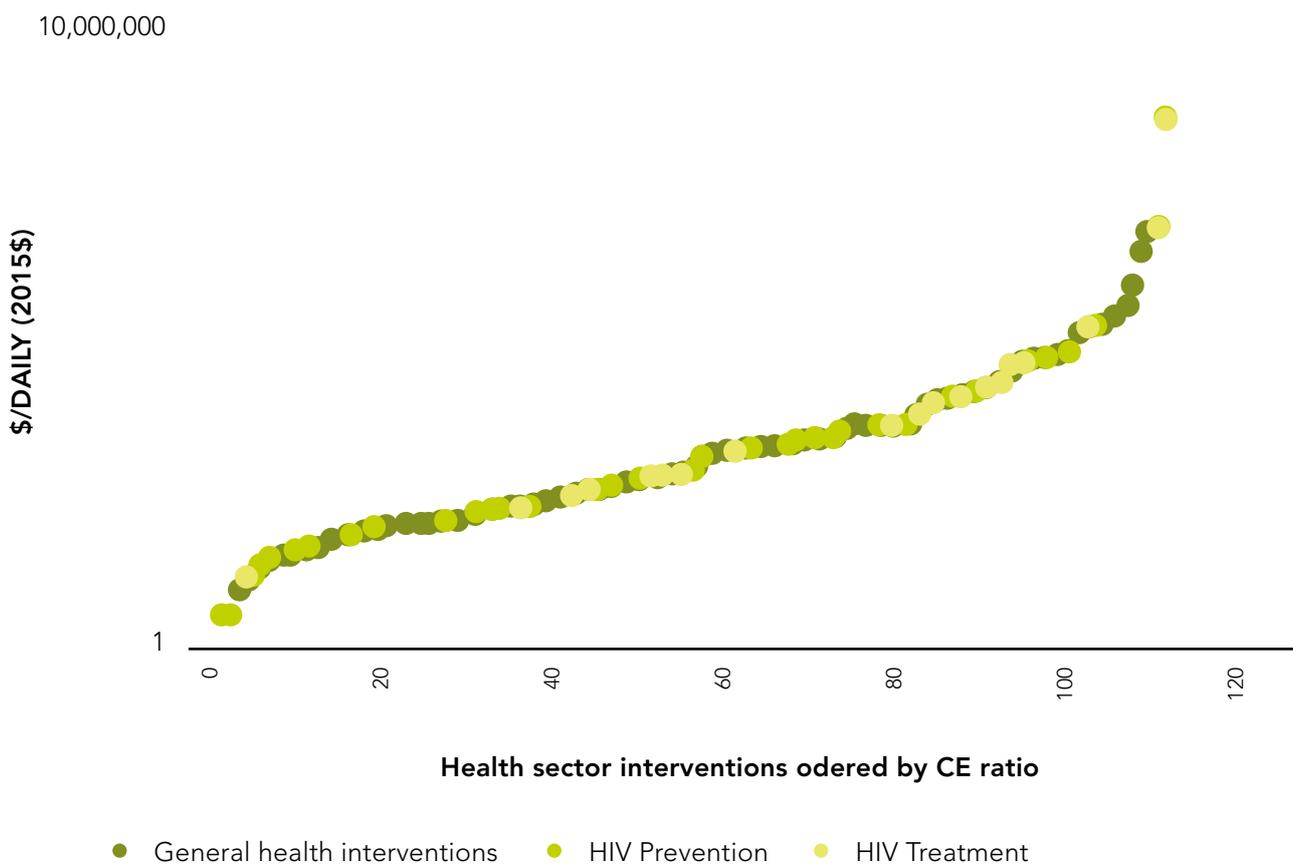
The World Bank Disease Control Priorities report summarises evidence on the cost effectiveness of health sector interventions in low income countries. Figure 6.3.1 ranks 111 different interventions according to their cost/daly in US\$ (OPM analysis of 2001\$ estimates from (Jamison, et al., 2006)). These have been inflated to 2015 \$ according to the emerging market and developing economy inflation rate (annex C is a list of these interventions).

The orange dots are HIV/AIDS prevention interventions and the grey dots are HIV/AIDS treatment interventions. The dark blue dots represent a selection on 111 general health interventions for which CEA has been done in low income countries. In addition to the HIV/AIDS prevention and treatment interventions, they include TB, malaria, nutrition/stunting/wasting, diarrheal disease and vaccine preventable disease care as well as maternal and new born care. These are all key areas of any integrated health system, and central to the MBB, WHO normative and CMH costed benefits packages. We have no comparable CEA data for non-health sector HIV interventions.

Figure 6.3.1 illustrates two key points for this report. First, HIV/AIDS prevention interventions have a wide range of cost effectiveness ratios, spread evenly throughout from cheap to expensive. The

less efficient prevention interventions were either in the Americas, or in places with low disease burden. More efficient results included peer to peer programmes, or programmes in areas with high prevalence.

F.6.3.1 CEA OF HEALTH SECTOR INTERVENTIONS IN LIC



Second, HIV/AIDS treatments also have a wide range of cost effectiveness ratios, however they are bunched slightly more towards the less efficient side. Part of the reason prevention strategies are often so cost effective is because they decrease the need to spend on expensive HIV/AIDS treatment. CEA of HIV prevention strategies should be sure to capture this as a benefit, otherwise the cost-effectiveness will be underestimated.

This sort of analysis can be a starting point for allocating resources between HIV/AIDS interventions and other interventions in an integrated health financing system given limited resources. Given a budget, a health sector can provide interventions to populations in need, working from left to right across the interventions. When its budget constraint is reached, the health sector does not provide the next intervention. In this way

an integrated benefits package is defined, and the highest health output possible is achieved given the limited resources.

This cannot be taken as the complete picture however, as the quality of economic evaluation and cost effectiveness analysis in low income countries is not yet of an adequately high standard. Some costs and benefits of interventions may not be included in CEA, and in general methodologies have so far been inconsistent, so comparability of results is an issue (NICE International, 2014). However, it may be a start, from which objections and responses can be made, and deviations in policy made where it is considered appropriate. Highlighting where problems exist in existing economic evaluations and CEA should direct future research. Another drawback is that CEA analysis accepts optimisation under budget constraint, which sits at odds with an approach which suggests that populations have the right to health care irrespective of their capacity to fund this right. A rights-based approach would focus on the need for increased international development assistance instead.

7.4 Further challenges for the integration of HIV/AIDS and UHC health financing?

In Kenya one of the long term options considered for the financing of HIV/AIDS response interventions is through an increased role for the National Health Insurance Fund. This is partly seen as a solution to how to integrate HIV/AIDS services, but also a necessary challenge to overcome if the fund is to be successful. HIV/AIDS is already accounting for a large proportion of the costs of the Kenyan public health service, and the Health Sector Strategic and Investment plan predicted that it would take 20% of disease specific

expenditure between 2012 and 2017. If an insurance fund is going to give people access to care, it needs to raise the revenue to finance at least part of the cost of HIV/AIDS treatments (Haaker & Birungi, 2015)⁹. Two initial options for this are a pay-as-you-go insurance model (where current contributions cover the costs of current treatment) or a capitalised insurance model (where current contributions cover the risk of contracted HIV in future years). A challenge with the capitalised model is that it does not cover the lifetime cost of treatment for people already living with HIV. In Kenya this is estimated to be around \$16billion, or 32% of annual GDP. This is a huge liability for an insurance scheme to take on from the start. Given this, a gradual transition to a funded insurance model has been suggested, with possible policy options including a bond (enabling government to spread the upfront cost over some time), or a trust fund. However it is not clear that either of these solve the timing problem – insurance models take time to raise revenue, but people already infected with HIV need significant health expenditure for treatment now.

There are a number of further issues that make the integration of HIV and UHC financing complicated beyond the lacking fiscal space. Another issue reflecting timing is that AIDS is a chronic, communicable disease. Diseases are commonly categorised into short term communicable on the one hand, and chronic non-communicable on the other hand. From a financial perspective, this means that treatment costs are lifelong. While ART has significantly dropped in price, it also produces serious illness episodes, transaction and opportunity costs related to lifelong treatment and the need for continued investment in treatment programmes – it thus demands significant long term planning. A third challenge is that HIV/AIDS intervention packages

⁹ Discussion note, provided through internal communications with UNAIDS.

commonly include both private and public goods. Private health care goods (such as treatment) and generally considered well aligned with insurance based financing schemes. However, public goods (such as awareness raising, HIV testing and condom distribution) are less easy to fund through voluntary insurance premiums, and demand governments to be able to effectively raise tax revenue in order to be funded. Fourth, there are large data constraints. Several of the variables that influence costing estimates (such as those used throughout this report) are very hard to measure. Examples include the strength of a health system, intellectual property regulations, epidemiological profiles and differing capacities to produce drugs locally. For many countries, such data is not routinely collected, and requires a focused effort to collect it. Some countries have attempted to do this on an individual level as part of planning for the development of health insurance schemes (including

South Africa, Ghana, Rwanda and Lesotho). The common message is that any country looking to integrate HIV financing into an insurance scheme needs to perform its own fresh calculations rather than base them on already existing databased estimates, and this likely goes for any analysis on such integration (UNAIDS-World Bank, 2014).

However, some countries have made significant progress towards integration. Brazil, Colombia, Thailand, Mexico and Chile have all integrated HIV and UHC financing at the collection, pooling and purchasing stages of their health financing systems. Rwanda and Ghana, both part of the 49 countries looked at in this report have began the process of integration at the pooling and purchasing stages. However, neither has made significant progress in integrating the collection of revenue, which is more relevant to the question of this report (UNAIDS-World Bank, 2014).

8 Conclusion

This report has questioned to what extent there is fiscal space for an integrated financing system funding universal health coverage with HIV/AIDS interventions within it in low income countries. It has done so by comparing McIntyre and Meheus' recent minimum expenditure on UHC target to UNAIDS estimated cost of HIV/AIDS interventions in 49 low income countries up to 2019, and then again to WHO estimated expenditure on health between 1995 and 2012.

There are two main findings. First, McIntyre and Meheus' recommended minimum expenditure on the provision of UHC includes more than enough space for UNAIDS recommended expenditure on HIV/AIDS interventions in the majority of the 49 low income countries. However, in

some countries this is not the case. Some countries have particularly high fiscal needs for HIV/AIDS interventions, such as Zimbabwe, and in these cases McIntyre and Meheus' recommendation does not provide enough space.

Second, given expenditure to date in the selected 49 low income countries, we anticipate a large resource gap between fiscal space and fiscal need for the provision of UHC with integrated HIV/AIDS interventions. We predict that the available resources will fall short of McIntyre and Meheus' recommendation by \$550 billion (2015\$) between 2015 and 2019. This is a resource gap of around 70% of fiscal need. It is clear that without additional donor support countries will have to focus on reduced benefit packages.

Nonetheless, UNAIDS' estimates of fiscal may be more affordable. There may be space at the aggregate level for these interventions. The CMH, WHO norm and MBB each allocated between 12% and 18% of the total cost of UHC to HIV/AIDS response interventions. UNAIDS estimated fiscal need for HIV/AIDS interventions is between 14% and 15% of estimated government plus donor expenditure on health between 2015 and 2019.

Further work needs to be done to assess this on a country specific basis. As highlighted throughout this report, generalised estimates should not be used to inform local policy decisions without first being assessed for their applicability at the local level. Fiscal need for both UHC and HIV/AIDS responses are highly variable across countries, and it may be that the UNAIDS package is still not affordable in countries with high HIV/AIDS prevalence rates and large UHC fiscal needs, such as Zimbabwe. In these cases an integrated benefits package may include some but not all health and HIV/AIDS interventions desirable from a rights based perspective (assuming additional finances are not made available).

Given this limiting budget constraint, a number of issues need to be addressed: the role of efficiency savings, the role of borrowing and the importance of understanding opportunity costs in low expenditure health sectors.

Efficiency savings provide an important opportunity to increase fiscal space for health. Recent analysis of the efficiency of 176 health sectors throughout the world between 2004 and 2011 highlights that there is large variation in the rate at which expenditure on health is converted into infant and child mortality and life

expectancy, even within the 49 low income countries referred to throughout this report. Bangladesh and Sierra Leone are at either sides of range, with Bangladesh converting health expenditure into health at one of the highest rates in the world, and Sierra Leone at one of the lowest. Ultimately, this highlights that for countries with low health expenditure and low health outcomes, an increase in efficiency may be more important than an increase in fiscal space. This relates to the question of this report because countries may be able to meet fiscal need by improving efficiency and decreasing fiscal need rather than just increasing fiscal space. If countries are able to do this an integrated financing system for UHC and HIV/AIDS may be more feasible.

Second, while borrowing does not increase overall fiscal space, it can increase present fiscal space at the expense of future fiscal space. This may be appropriate in health sectors under a number of circumstances. Where countries are struggling to meet fiscal need because of a spike in expenditure or slump in revenue that is expected to return to some medium level, it may be appropriate to borrow as a form of health expenditure smoothing. This may be the case after an armed conflict, a disease outbreak or a natural disaster, for example. Alternatively, where programmes have high initial costs that decrease into the future, expenditure smoothing may also be deemed appropriate. Both of these scenarios often apply to health sectors, and the second particularly applies to HIV/AIDS interventions. It is also possible that investments in health and HIV/AIDS interventions are actually cost saving. Investment in primary care may decrease the need for more expensive secondary care, and investment in HIV prevention may decrease the need for more expensive treatment. These cost savings may more

than pay back any loan that was used to finance the investment. Finally, where future generations are the beneficiaries of health interventions, as they can be in both general health and HIV/AIDS interventions, borrowing is a strategy for collecting resources from them. This is relevant for the question of this report, because, some countries may struggle to generate adequate fiscal space within some of these contexts. Specifically, in the long run they may have the fiscal space, but struggle in the present.

Third, where expenditure on health is low, the opportunity cost of expenditure on health is high. In order to allocate finances in such a way that maximises health output governments and donors should focus their expenditure on interventions for which the opportunity cost is lower than the benefit. Cost-effectiveness analysis may be a useful tool for understanding the opportunity costs and benefits of interventions in low income countries. In its current state, CEA of health interventions in low income countries is inadequate. Methodologies used in different reports by different authors and different settings are often of a low standard and inconsistent. This means that comparison of benefits and opportunity costs are difficult, and often easily dismissed as invalid. Nonetheless, with further research of a higher and more consistent standard, CEA can offer information to guide resource allocation within an integrated UHC and HIV/AIDS health financing system. Form analysis already conducted, the cost-effectiveness of HIV/AIDS interventions varies from highly cost-effective to least cost-effective, in a similar fashion as general health interventions. This suggests that if choices of benefit package under resource constrained settings have to be made using CEA, benefit packages for UHC will comprise a significant proportion of HIV/AIDS services.

Finally, it is important to note that there are many challenges for the integration of HIV/AIDS care and UHC beyond lacking fiscal space. However, some middle income countries have made significant progress at integrating each component of their health financing systems and Ghana and Rwanda, both part of the group of countries looked at in this report, have started integration at the pooling and purchasing stage.

Necessary next steps include more rigorous regression analysis of past health expenditure data alongside a variety of explanatory variables. The methods used in this report are basic, and may suffer from omitted variable bias. Moreover, as explanatory and dependent variables are expressed per capita, it is not absolutely clear whether the change in dependant variables is due to a change in population or a change in the explanatory variables. It is also clear that GDP per capita is a poor explanatory variable for donor expenditure on health, government expenditure on health, OOP expenditure on health or other private expenditure on health. It does have a strong correlation with total expenditure on health, but this is less useful for estimating future fiscal space for UHC and HIV/AIDS interventions, as it includes much expenditure on non-basic health care. It is also necessary for the analysis done in this report to be done on a country specific basis before it is used to inform country specific policy. What is clear from the aggregate level, however, is that there has not been, and likely will not be into the near future, enough resources available for adequate provision of UHC with integrated HIV/AIDS interventions in the selected 49 countries. In order to close this gap, domestic governments will need to increase expenditure on health, but the international community will also need to increase its financing role.

Nonetheless, UNAIDS' estimates of fiscal may be more affordable. There may be space at the aggregate level for these interventions. The CMH, WHO norm and MBB each allocated between 12% and 18% of the total cost of UHC to HIV/AIDS response interventions. UNAIDS estimated fiscal need for HIV/AIDS interventions is between 14% and 15% of estimated government plus donor expenditure on health between 2015 and 2019.

Further work needs to be done to assess this on a country specific basis. As highlighted throughout this report, generalised estimates should not be used to inform local policy decisions without first being assessed for their applicability at the local level. Fiscal need for both UHC and HIV/AIDS responses are highly variable across countries, and it may be that the UNAIDS package is still not affordable in countries with high HIV/AIDS prevalence rates and large UHC fiscal needs, such as Zimbabwe. In these cases an integrated benefits package may include some but not all health and HIV/AIDS interventions desirable from a rights based perspective (assuming additional finances are not made available).

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Second, while borrowing does not increase overall fiscal space, it can increase present fiscal space at the expense of future fiscal space. This may be appropriate in health sectors under a number of circumstances. Where countries are struggling to meet fiscal need because of a spike in expenditure or slump in revenue that is expected to return to some medium level, it may be appropriate to borrow as a form of health expenditure smoothing. This may be the case after an armed conflict, a disease outbreak or a natural disaster, for example. Alternatively, where programmes have high initial costs that decrease into the future, expenditure smoothing may also be deemed appropriate. Both of these scenarios often apply to health sectors, and the second particularly applies to HIV/AIDS interventions. It is also possible that investments in health and HIV/AIDS interventions are actually cost saving. Investment in primary care may decrease the need for more expensive secondary care, and investment in HIV prevention may decrease the need for more expensive treatment. These cost savings may more

than pay back any loan that was used to finance the investment. Finally, where future generations are the beneficiaries of health interventions, as they can be in both general health and HIV/AIDS interventions, borrowing is a strategy for collecting resources from them. This is relevant for the question of this report, because, some countries may struggle to generate adequate fiscal space within some of these contexts. Specifically, in the long run they may have the fiscal space, but struggle in the present.

Third, where expenditure on health is low, the opportunity cost of expenditure on health is high. In order to allocate finances in such a way that maximises health output governments and donors should focus their expenditure on interventions for which the opportunity cost is lower than the benefit. Cost-effectiveness analysis may be a useful tool for understanding the opportunity costs and benefits of interventions in low income countries. In its current state, CEA of health interventions in low income countries is inadequate. Methodologies used in different reports by different authors and different settings are often of a low standard and inconsistent. This means that comparison of benefits and opportunity costs are difficult, and often easily dismissed as invalid. Nonetheless, with further research of a higher and more consistent standard, CEA can offer information to guide resource allocation within an integrated UHC and HIV/AIDS health financing system. Form analysis already conducted, the cost-effectiveness of HIV/AIDS interventions varies from highly cost-effective to least cost-effective, in a similar fashion as general health interventions. This suggests that if choices of benefit package under resource constrained settings have to be made using CEA, benefit packages for UHC will comprise a significant proportion of HIV/AIDS services.

Finally, it is important to note that there are many challenges for the integration of HIV/AIDS care and UHC beyond lacking fiscal space. However, some middle income countries have made significant progress at integrating each component of their health financing systems and Ghana and Rwanda, both part of the group of countries looked at in this report, have started integration at the pooling and purchasing stage.

Necessary next steps include more rigorous regression analysis of past health expenditure data alongside a variety of explanatory variables. The methods used in this report are basic, and may suffer from omitted variable bias. Moreover, as explanatory and dependent variables are expressed per capita, it is not absolutely clear whether the change in dependant variables is due to a change in population or a change in the explanatory variables. It is also clear that GDP per capita is a poor explanatory variable for donor expenditure on health, government expenditure on health, OOP expenditure on health or other private expenditure on health. It does have a strong correlation with total expenditure on health, but this is less useful for estimating future fiscal space for UHC and HIV/AIDS interventions, as it includes much expenditure on non-basic health care. It is also necessary for the analysis done in this report to be done on a country specific basis before it is used to inform country specific policy. What is clear from the aggregate level, however, is that there has not been, and likely will not be into the near future, enough resources available for adequate provision of UHC with integrated HIV/AIDS interventions in the selected 49 countries. In order to close this gap, domestic governments will need to increase expenditure on health, but the international community will also need to increase its financing role.

9 Annexes

9.1 Annex A: 49 low income countries

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49 COUNTRIES USED IN MBB AND WHO NORMATIVE

WEST AND CENTRAL AFRICA	EAST AND SOUTH AFRICA	SOUTH ASIA
Benin	Burundi	Afghanistan
Burkina Faso	Comoros	Bangladesh
CAR	Eritrea	Nepal
Chad	Ethiopia	Pakistan
Cote D'Ivoire	Kenya	
DR Congo	Madagascar	CENTRAL ASIA
Gambia	Malawi	Kyrgyz Republic
Ghana	Mozambique	Tajikistan
Guinea	Rwanda	Uzbekistan
Guinea Bissau	Somalia	
Liberia	Tanzania	EASTERN ASIA AND THE PACIFIC
Mali	Uganda	Cambodia
Mauritania	Zambia	Lao PDR
Niger	Zimbabwe	Myanmar
Nigeria		North Korea
Soa Tome and Principe	MIDDLE EAST AND NORTH AFRICA	Papua New Guinea
Senegal	Yemen	Solomon Islands
Sierra Leone		Vietnam
Togo	LATIN AMERICA	
	Haiti	

9.2 Annex B: Inflating the cost of a basic package of healthcare

The CMH, WHO normative and MBB recommendations are all expressed in absolute costs. But, as prices are expected to change over time due to inflation, these recommendations should also be expected to change.

How should we incorporate this into the minimum expenditure recommendation?

Using \$ inflation rates may underestimate a rise in domestic prices, but using local inflation rates may overestimate a rise in the cost of inputs paid for with US\$, GBP or Euros. Domestic inflation will have depreciating effect on domestic currencies, other variables such as increasing exports or foreign direct investment may have offset these. On the other hand, if we inflate the figures with domestic inflation rates we will not take into account the depreciation in the exchange rate due to the inflation, and so, as we are reporting in US\$, we will overestimate the rise in prices.

McIntyre and Meheus negotiate this problem by converting the recommendations into all the domestic currencies at 2002 or 2005 exchange rates, inflating all estimates individually at domestic inflation rates until the current year, converting them back into US\$ at current exchange rates and finally taking the average of all. They estimate then estimate cost of the packages in 2012\$. The CMH package in 2015 is inflated to \$71 per capita and the WHO normative is inflated to \$76 per capita.

However, this method has two problems. First, not all medical goods and services

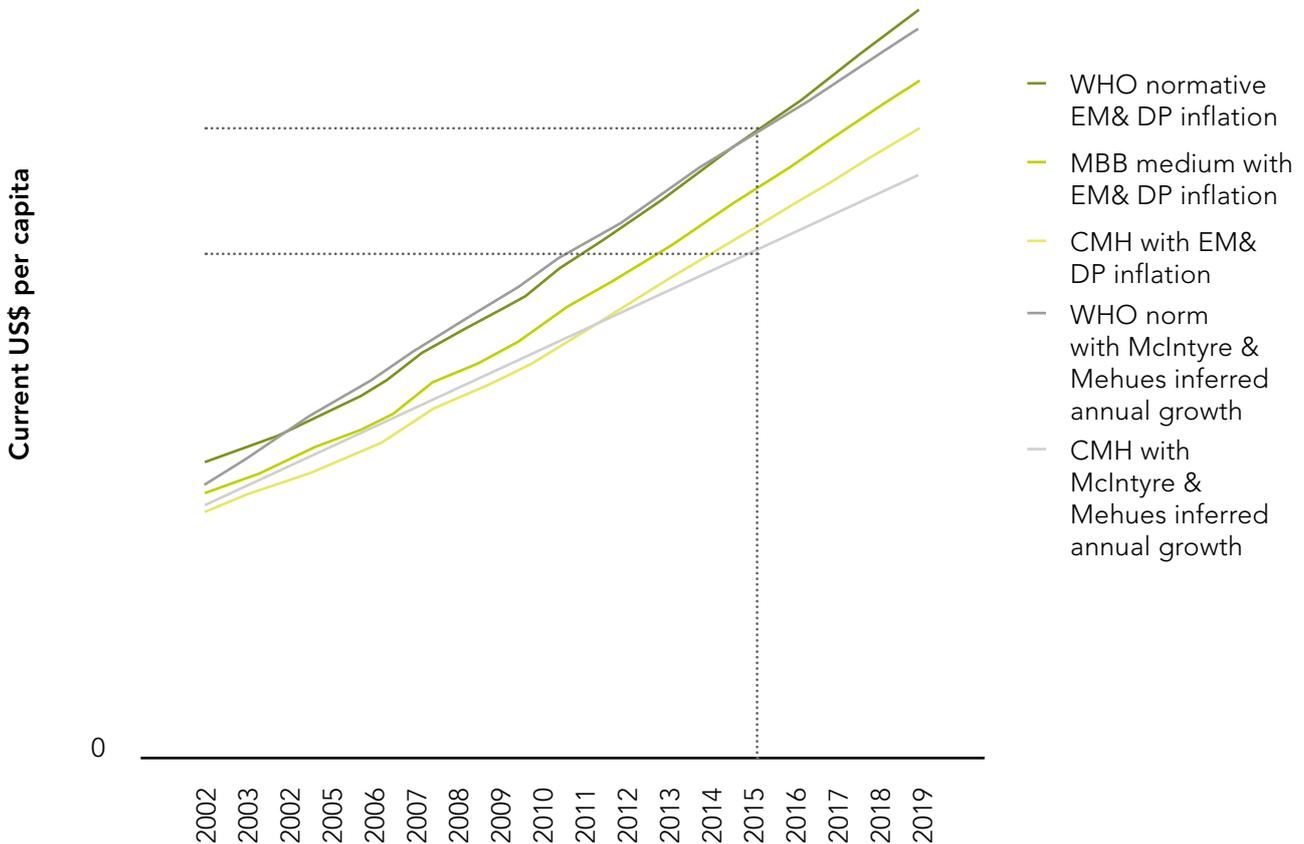
are bought in domestic currencies – many are paid for in US dollars, GBPs and Euros. As inflation rates for these countries are generally lower, this method will overestimate the rise in prices. Second, we are left with an average value that is not directly applicable to any one of the countries.

In addition, as prices may change at different rates over time, this needs to be calculated on an annual basis in order to be usable. Doing this on an annual basis may be unfeasible, but without doing it on annual basis we cannot estimate minimum expenditure recommendations into the future.

As McIntyre and Meheus point out, the results are similar to those got from inflating at average low income inflation rates. Using the IMF emerging market and developing economy inflation rate as a proxy may be a feasible solution. Figure XX shows how prices are estimated to increase using the three estimates (WHO norm, MBB and CMH) and the two inflation methodologies (that applied by McIntyre and Meheus compared to using emerging market and developing economy inflation as a proxy). Rather than the \$71 and \$76 estimate reached by McIntyre and Meheus in 2012\$, the emerging market and developing country inflation rate estimates \$72 and \$75. The two methodologies seem particularly close when inflating the WHO norm over the period 2002-2019, and both estimate that the basic package will cost \$100 per capita in 2015\$. The total range is between \$80 and \$100 per capita in 2015 in 2015US\$.

F.8.2.1 RISING COST OF BASIC BENEFITS PACKAGE

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However, this does not have sound theoretical backing, and may just appear close because the lower emerging market inflation rates (which are not included in the costing estimates) are offsetting the higher developing economy inflation rates, coincidentally compensating for the depreciation of domestic currencies.

The issues highlighted here regarding inflating the estimated costs of basic package service provision from the years they are initially reported in to

future years is a second reason why countries cannot take these estimates as generalizable targets. The methods used here are very crude, and risk either over or underestimated changes in prices depending on a country's specific history. If a large portion of THE is on imported goods, then it is important to consider exchange rates and inflation in the countries exporting the goods. However, if a large portion of THE is on domestically produced goods, it is important to focus on domestic inflation.

9.3 Annex C: CEA of health interventions

T.8.3 CEA OF HEALTH SECTOR INTERVENTIONS IN LOW INCOME COUNTRIES

AREA	INTERVENTION	\$/DALY AVERAGE
Diarrheal diseases	Breast feeding promotion	2209.40
Diarrheal diseases	Measles immunisation	2330.56
Diarrheal diseases	ORT	2522.99
Diarrheal diseases	Water and sanitation in rural areas	4689.62
Diarrheal diseases	Rotavirus immunisation	5886.97
Diarrheal diseases	Cholera immunisation	6996.42
Diarrheal diseases	Water and sanitation in urban areas	15194.94
HIV/AIDS prevention	Sti treatment (Kenya)	2.38
HIV/AIDS prevention	Chloroquine to SP: above 47% resistance to chloroquine	2.38
HIV/AIDS prevention	Peer based programmes (India sex workers)	7.13
HIV/AIDS prevention	Condom social marketing (Chad)	9.50
HIV/AIDS prevention	Peer based programmes (Cameroon)	11.88
HIV/AIDS prevention	Peer based programmes (Chad youths)	14.25
HIV/AIDS prevention	Blood safety (Chad)	14.25
HIV/AIDS prevention	ART to reduce MTCT (Sub Saharan Africa, Nevirapine)	21.38
HIV/AIDS prevention	VCT (India)	23.76
HIV/AIDS prevention	Blood safety (Zambia)	28.51
HIV/AIDS prevention	Peer based programmes (India high risk men)	35.64
HIV/AIDS prevention	Sti treatment (Tanzania)	38.01
HIV/AIDS prevention	VCT (Kenya & Tanzania)	39.20
HIV/AIDS prevention	Harm reduction for IDU (Belarus)	42.76
HIV/AIDS prevention	Harm reduction for IDU (Russia)	66.52
HIV/AIDS prevention	Blood safety (Zimbabwe)	70.08

AREA	INTERVENTION	\$/DALY AVERAGE
HIV/AIDS prevention	ART to reduce MTCT (Zambia)	80.77
HIV/AIDS prevention	Peer based programmes (Chad high risk men)	89.09
HIV/AIDS prevention	Blood safety (Zambia)	107.44
HIV/AIDS prevention	School based education	161.55
HIV/AIDS prevention	Sti treatment (Chad)	199.56
HIV/AIDS prevention	ART to reduce MTCT (Chad, AZT)	236.38
HIV/AIDS prevention	Sti treatment (South Africa)	249.45
HIV/AIDS prevention	ART to reduce MTCT (South Africa)	261.33
HIV/AIDS prevention	Condom promotion (South Africa)	266.08
HIV/AIDS prevention	ART to reduce MTCT (Chad, breast feeding advice)	267.27
HIV/AIDS prevention	ART to reduce MTCT (India)	299.34
HIV/AIDS prevention	VCT (CHAD)	363.48
HIV/AIDS prevention	Sterile injection (Africa)	381.30
HIV/AIDS prevention	ART to reduce MTCT (Sub Saharan Africa)	794.67
HIV/AIDS prevention	Sterile injection (Southeast Asia)	874.26
HIV/AIDS prevention	Sterile injection (Middle East)	933.65
HIV/AIDS prevention	Peer based programmes (US)	1999.15
HIV/AIDS prevention	Sterile injection (Western Pacific)	2264.04
HIV/AIDS prevention	Blood safety (0.01-1% HIV prevalence)	2705.92
HIV/AIDS prevention	ART to reduce MTCT (Mexico)	5258.60
HIV/AIDS prevention	Peer based programmes (US)	8447.97
HIV/AIDS prevention	Sterile injection Americas	69480.76
HIV/AIDS treatment	Treatment of OI before or when initiating ART: PCP	6.41
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Herpes simplex virus	41.57
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Toxoplasmosis	58.20
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Esophageal candidiasis	65.81

AREA	INTERVENTION	\$/DALY AVERAGE
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Mycobacterium avium complex	97.40
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Penicilliosis	98.59
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Histoplasmosis	105.72
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Cryptococcal meningitis	105.72
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Oral candidiasis	187.09
HIV/AIDS treatment	Opportunistic infection prophylaxis before or when initiating ART: TB preventative therapy	374.17
HIV/AIDS treatment	Opportunistic infection prophylaxis before or when initiating ART: Toxoplasmosis	506.02
HIV/AIDS treatment	Nutrition interventions	534.53
HIV/AIDS treatment	Treatment of OI before or when initiating ART: TB	677.07
HIV/AIDS treatment	ART: First line	831.49
HIV/AIDS treatment	Pain alleviation	997.79
HIV/AIDS treatment	ART: Second line	1168.84
HIV/AIDS treatment	Opportunistic infection prophylaxis before or when initiating ART: PCP	1800.78
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Cytomegalovirus	1877.99
HIV/AIDS treatment	Opportunistic infection prophylaxis before or when initiating ART: Mycobacterium avium complex	5214.65
HIV/AIDS treatment	Treatment of OI before or when initiating ART: Kaposi's sarcoma	76405.91
HIV/AIDS treatment	Opportunistic infection prophylaxis before or when initiating ART: Cytomegalovirus	1336102.69
Malaria prevention and treatment	Peer based programmes (Chad sex workers)	4.75
Malaria prevention and treatment	ITNs (without net): Deltamethrin	11.88
Malaria prevention and treatment	ITNs (without net): Permethrin (1 treatment)	14.25
Malaria prevention and treatment	IRS (1 round): DDT	21.38
Malaria prevention and treatment	IRS (1 round): Deltamethrin	23.76



AREA	INTERVENTION	\$/DALY AVERAGE
Malaria prevention and treatment	IRS (1 round): Lambda-cyhalothrin	23.76
Malaria prevention and treatment	ITNs (net + treatment): Deltamethrin	26.13
Malaria prevention and treatment	ITNs (without net): Permethrin (2 treatments)	26.13
Malaria prevention and treatment	ITNs (net + treatment): Permethrin (1 treatment)	28.51
Malaria prevention and treatment	IRS (1 round): Melathion	28.51
Malaria prevention and treatment	IPT: Incremental costs	30.88
Malaria prevention and treatment	ITNs (net + treatment): Permethrin (2 treatments)	40.39
Malaria prevention and treatment	IRS (2 rounds): DDT	40.39
Malaria prevention and treatment	IRS (2 rounds): Deltamethrin	42.76
Malaria prevention and treatment	IRS (2 rounds): Lambda-cyhalothrin	45.14
Malaria prevention and treatment	IRS (2 rounds): Malathion	57.02
Malaria prevention and treatment	IPT: Average costs	57.02
Malaria prevention and treatment	Chloroquine to SP: above 35% resistance to chloroquine	356.35
Malaria prevention and treatment	Chloroquine to ACT: above 37% resistance to chloroquine	356.35
Malaria prevention and treatment	SP to ACT: above 12% resistance to SP	356.35
Maternal care in SSA	Improved overall quality of care without nutritional supplements: for maternity care	182.93
Maternal care in SSA	Improved overall quality of care with nutritional supplements: for maternity care	197.18

AREA	INTERVENTION	\$/DALY AVERAGE
Maternal care in SSA	Improved overall quality of care and coverage without nutritional supplements: for maternity care	199.56
Maternal care in SSA	Improved overall quality of care and coverage with nutritional supplements: for maternity care	204.31
Maternal care in SSA	Increased primary level coverage: for maternal care	218.56
Maternal care in SSA	Improved quality of CEmOC: for maternity care	358.73
Newborn care	Combined MCH and neonatal specific packages:	1027.49
Nutrition	Underweight: Breastfeeding support	11.88
Nutrition	Vitamin A deficiency: Capsule distribution	15.44
Nutrition	Underweight: Breastfeeding promotion	18.53
Nutrition	Underweight: Growth monitoring and counseling	22.57
Nutrition	Underweight: Breastfeeding promotion	26.13
Nutrition	Vitamin A deficiency: Capsule distribution	26.13
Nutrition	Vitamin A deficiency: Capsule distribution	27.32
Nutrition	Vitamin A deficiency: Sugar fortification	80.77
Nutrition	Iodine deficiency: Salt fortification	83.15
Nutrition	Underweight: Child survival program with nutritional component	99.78
Nutrition	Iron deficiency: Cereal fortification	161.55
Nutrition	Zinc deficiency: Supplements with oral rehydration salts	173.43
TB	Short course chemotherapy for treatment of infectious and non-infectious TB patients through dots: epidemic or endemic	65.33
TB	BCG vaccination	249.45
TB	TLTI for those coinfecting with HIV	374.17
TB	TLTI during outbreaks	772.10
TB	Latent TB where TB is endemic and pop unaffected by HIV	37417.19
Vaccine preventable diseases	Traditional immunisation programme in SSA for FIC	16.63



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HOW SHOULD THE RESPONSE TO AIDS RELATE TO THE DRIVE FOR UNIVERSAL HEALTH COVERAGE?

Produced by: Prof Nana Poku - APW with UNAIDS 2015/517517



Introduction

Normatively, the case for Universal Health Coverage (UHC) is unassailable, whether considered in terms of human rights, human decency, political responsibility, international and global security or as a means to the fulfillment of the non-health requisites of sustainability.¹ Many countries have embraced UHC at least nominally and with varying degrees of success; and growing normative impetus has become mutually reinforcing with political expectation—for example, in Brazil, where the universal provision of health services funded through general taxation was brought about by constitutional reform.

Practical initiatives have also gained traction in recent years: the World Health Organisation (WHO) and World Bank have provided technical assistance on UHC to more than 100 countries since 2010. Now, a dedicated network of 587 international non-governmental organizations, academic institutions and advocacy groups, supported by the Rockefeller Foundation, is behind the global push for Universal Health Coverage, which has culminated in Sustainable Development Goal 3.8: 'achieve universal health coverage, including financial risk protection, access to quality essential health care services, and access

¹UNGA resolution A/67/L.36; World Health Organization, World Health Report 2010: Health Systems Financing—The Path to Universal Coverage, available at: http://www.who.int/whr/2010/whr10_en.pdf?ua=1; see also The Commission on Macroeconomics and Health, 'Investing in Health for Economic Development' (2001), http://www.earth.columbia.edu/sitefiles/file/Sachs%20Writing/2002/GlobalHealthLink_2002_InvestinginHealthforEconDev_March2002.pdf; Elio Borroni and Amelia Compagni, 'Sustaining Universal Health Coverage: The Interaction of Social, Political and Economic Sustainability,' *Value in Health* 16 (2013), S34-38, [http://www.valueinhealthjournal.com/article/S1098-3015\(12\)04157-5/pdf](http://www.valueinhealthjournal.com/article/S1098-3015(12)04157-5/pdf); J. Rodin and D. Ferranti, 'Universal health coverage: the third global health transition? The Lancet 380 (2012), pp.861–862 and subsequent articles in that edition.

to safe, effective, quality, and affordable essential medicines and vaccines for all.^{2,3} It would appear that UHC is an idea whose moment has arrived.

This paper considers some of the key challenges and opportunities in transiting towards UHC for the global response to HIV and AIDS.

The Case for Universal Health Coverage

Global norms—human rights and gender equality not least—are facilitative, not transformative. Norms establish standards for responsive and responsible conduct; they are a means by which powerful actors can be held to account; and they can inspire and support movements to bring elements of the human condition within explicitly political and legal arenas. But in a matter as large as the human health of an entire nation, a range of complex human dynamics, embedded interests, unsupportive conditions and conflicting or competing priorities have a determining impact on both the establishment of Universal Health Coverage and on its qualities.

The principle of universal health coverage has a deeply appealing simplicity and clarity. As defined by the WHO, UHC ensures ‘...that all people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship.’⁴ More recently, as a step towards narrowing the concept, in December 2014 the WHO outlined in general terms its understanding of the conditions to be met for a community or country to achieve universal health coverage:⁵

1. A strong, efficient, well-run health system that meets priority health needs through people-centred integrated care (including services for HIV, tuberculosis, malaria, noncommunicable diseases, maternal and child health) by: informing and encouraging people to stay healthy and prevent illness; detecting health conditions early; having the capacity to treat disease; and helping patients with rehabilitation.
2. Affordability: a system for financing health services so people do not suffer financial hardship when using them. This can be achieved in a variety of ways.
3. Access to essential medicines and technologies to diagnose and treat medical problems.
4. A sufficient capacity of well-trained, motivated health workers to provide the services to meet patients’ needs based on the best available evidence.

It also requires recognition of the critical role played by all sectors which impact on human health and on the ability of citizens to access health services including transport, education and urban planning.

² UNGA resolution A/67/L.36; World Health Organization, World Health Report 2010: Health Systems Financing—The Path to Universal Coverage, available at: http://www.who.int/whr/2010/whr10_en.pdf?ua=1; see also The Commission on Macroeconomics and Health, ‘Investing in Health for Economic Development’ (2001), http://www.earth.columbia.edu/sitefiles/file/Sachs%20Writing/2002/GlobalHealthLink_2002_InvestinginHealthforEconDev_March2002.pdf; Elio Borroni and Amelia Compagni, ‘Sustaining Universal Health Coverage: The Interaction of Social, Political and Economic Sustainability,’ *Value in Health* 16 (2013), S34-38, [http://www.valueinhealthjournal.com/article/S1098-3015\(12\)04157-5/pdf](http://www.valueinhealthjournal.com/article/S1098-3015(12)04157-5/pdf); J. Rodinand D. Ferranti, ‘Universal health coverage: the third global health transition? The Lancet 380 (2012), pp.861–862 and subsequent articles in that edition.

³ United Nations Department of Economic and Social Affairs, Open Working Group proposal for Sustainable Development Goals, 2014, available at: <https://sustainabledevelopment.un.org/focussdgs.html>

⁴ http://www.who.int/health_financing/universal_coverage_definition/en/

⁵ WHO, What is Universal Health Coverage?, Q&A, December 2014. Accessed at: http://www.who.int/features/qa/universal_health_coverage/en/

The UHC fundamentals set out in the WHO definition are a vitally important ideal and a helpful organizing principle, but there is no widely agreed understanding of what the particulars of coverage and care must comprise in order for any nation's health system to count as 'universal';⁶ no standard system performance or health outcome measures for an adequately functioning UHC; and not even an authoritative list of countries currently operating UHC systems. Moreover, in practice, there is nothing in the establishment of a country UHC system which in itself will prevent gaps and deficiencies opening up in one or both of comprehensiveness of coverage or the quality of care—a condition as evident in OECD countries (nearly all of which have universal or near-universal health coverage⁷) as in developing countries. This is because the generic 'universal health care' can accommodate a very wide range in terms of the extent, quality and accessibility of services, the medical conditions and/or financial status which in some cases trigger entitlement, and the political, demographic socio-cultural and socio-economic factors which shape accessibility and use⁸—as well as the means by which they are financed, including national systems supported by general or targeted taxation; partially state-subsidized systems, but with user fees at the point of use, or for some services; health

insurance schemes which might entail general or case-specific public support; and private systems which have some degree of mandated, public responsibilities.

The relatively wealthy, middle-income BRICS countries (Brazil, the Russian Federation, India, China and South Africa), representing around half of the global population, are all engaged in health system reforms designed to extend, deepen, or otherwise improve health service coverage for their populations, while simultaneously working on ways to increase financial protection for those availing themselves of health services. The BRICS countries are a disparate set, but for the purposes of this discussion, all five are faced with the problem of 'translating new wealth into better health'⁹—and in each case, the obstacles and challenges are formidable, including regulating, coordinating or consolidating mixed private and public systems;¹⁰ inadequate human resources;¹¹ inadequate monitoring and data gathering;¹² shifting demographic and disease burden variables; coordinating national and district levels;¹³ unimproved social and/or social determinants of ill-health—and a host of other issues, all in addition to the perennial problems of securing and maintaining adequate funding against the pull of other demands and the related matter of managing costs.¹⁴

⁶ However, the recently established *Health for All* Global Network (<http://universalhealthcoverageday.org>) lists the 'core tenets' of UHC as follows: Prioritize the poorest; increase reliance on public funding; reduce, if not eliminate out-of-pocket spending; and develop the health system. See also: Thomas O'Connell, Kumanan Rasanathan and Mickey Chopra, 'What does universal health coverage mean?' *The Lancet* 383 (2014), pp.77-9.

⁷ '[In OECD countries], unmet health care needs are still reported, most commonly among low-income groups.' 'Health at a Glance: OECD Indicators, 2013,' Available at: <http://www.oecd.org/els/health-systems/Health-at-a-Glance-2013-Chart-set.pdf>. See also: Jonathan Cylus and Irene Papanicolas, 'An analysis of perceived access to health care in Europe: How universal is universal coverage?' *Health Policy*, Vol.119, Issue 9 (2015), pp.1133-44.

⁸ In one Canadian study, 'On average, 40% of people who died of HIV and AIDS-related causes during the study period had never accessed [ART] treatment. This finding is of particular concern, given that treatment is universal and provided free of charge in British Columbia.' Ruth Joy et al, 'Impact of Neighborhood-Level Socioeconomic Status on HIV Disease Progression in a Universal Health Care Setting,' *Journal of Acquired Immune Deficiency Syndromes*, 47(4), 1 April 2008, pp. 500-505.

⁹ Krishna D Rao et al., 'Progress towards universal health coverage in BRICS: translating economic growth into better health,' *Bulletin of the World Health Organisation* 92 (2014), p.433.

¹⁰ Rama Baru, 'Challenges for regulating the private health services in India for achieving universal health care,' *Indian Journal of Public Health* 57.4 (2013): 208.

¹¹ Simon C. Dalton, 'The current crisis in human resources for health in Africa: the time to adjust our focus is now,' *Transactions of the Royal Society for Tropical Medicine and Hygiene* 108 (2014), pp. 526–527; Angelica Sousa et al, 'Health labour market policies in support of universal health coverage: a comprehensive analysis in four African countries,' *Human Resources for Health* 12:55 (2014).

¹² Valerie Obare, Claire E Brolan and Peter S. Hill, 'Indicators for Universal Health Coverage: can Kenya comply with the proposed post-2015 monitoring recommendations?' *International Journal for Equity in Health* 13:123 (2014), DOI 10.1186/s12939-014-0123-1.

¹³ Kate Tulenko et al, 'Community health workers for universal health-care coverage: from fragmentation to synergy,' *Bulletin of the World Health Organisation* 91:8 (2013), pp.847–52.

¹⁴ *Ibid*; see also: Robert Marten et al, 'An assessment of progress towards universal health coverage in Brazil, Russia, India, China, and South Africa (BRICS),' *The Lancet*, Volume 384, Issue 9960 (2014), pp. 2164-71.

The now-familiar difficulties which beset all UHC systems are (or will be) amplified for low-income countries: the unresolvable tensions between extent of coverage and costs; the fact that the means of securing and maintaining adequate levels of funding must be politically sanctioned as much as medically determined; and the very considerable challenges of simultaneously universalizing and strengthening health systems which are so often weak, patchy, and poorly managed, administered and monitored.¹⁵ In addition, health systems in lower income countries, regardless of the degree to which they approach universality, face relatively high disease burdens driven and sustained by poverty. This gives them considerably less adaptability for dealing with health emergencies or for scaling up provision for any particular disease or condition—most recently in the case of the Ebola outbreak in West Africa and for HIV and AIDS more enduringly.

Universal Health Coverage and the HIV and AIDS response

In outline terms, it is possible to discern how at least in theory the creation of a UHC could reduce HIV and AIDS costs, increase efficiencies, improve service delivery or coordinate the work of health professionals and civil society activists. But crossing the political threshold of UHC creation would not assure any other these things; and health services are rationed everywhere, even in the wealthiest countries. Moreover, there is nothing in the fact of a UHC which would ensure that the political and financial levels of support that AIDS has commanded over the last two decades would continue, since the popular political impetus required

to establish and sustain a UHC system might well make demands that place HIV and AIDS funding on a lower footing, particularly in states where HIV prevalence rates are relatively low, but other disease burdens are pervasive. These uncertainties are magnified when set against aspirations for UHCs to be established throughout Southern Africa. In any event, in the absence of detailed, country-specific planning, the admission of circumstantial variables and a nuanced appreciation of the political and financial constraints which will inevitably inform and shape the creation of any developing world UHC, the possibilities remain largely speculative.

Undoubtedly, the HIV response would benefit from stronger health systems. Family Planning and Maternal and Child Health services have, over decades, developed solid infrastructure in sub-Saharan Africa; in some cases this has made the conception and execution of integrated HIV and AIDS services feasible. Recent work examining the impact of Performance Based Financing for Health in Rwanda and additional investment in the health system there to strengthen basic health services noted a positive contribution of these schemes to rapid scale-up of HIV services.¹⁶ Similarly, there are numerous examples of how fragmented and weak health systems have made the implementation of HIV programmes slow or extremely difficult, despite the availability of abundant financial resources for HIV. Such problems are not confined to ART scale-up. Health systems failures are seen as being at the root of the disappointing outcomes of tuberculosis (TB) control strategies (DOTS), Integrated Management of Childhood Illness (IMCI) and the integration of reproductive health services.¹⁷ To attempt to address this,

¹⁵ Dr Margaret Chan, Director-General of the World Health Organization, speech made to the Measurement and Accountability for Results in Health Summit, Washington, DC, 9 June 2015, available at: <http://www.who.int/dg/speeches/2015/health-measurement-summit/en/>

¹⁶ M. Schneidman and L. Rusa, Rwanda Performance Based Financing for Health, Center for Global Development Working Group on Performance Based Incentives.

health funding in some areas has moved from disease-specific programming towards a Sector Wide Approach (SWAp); an approach explored even by a highly disease-specific funding agency, the Global Fund for AIDS, TB and Malaria.¹⁸ Indeed, the Global Fund 'has encouraged countries to integrate related, synergistic services in order to maximize investments, and has opened new grant channels to specifically support these areas. The Global Fund grant portfolio currently funds both TB-HIV integration (2%) and health systems strengthening (2%).¹⁹

Notwithstanding the above, the UNAIDS Fast Track agenda to ending AIDS as a public health concern by 2030 is not predicated on the integration of AIDS financing, management or organisation/service delivery with the national health system, nor, by extension, is it predicated on health systems strengthening. Whilst acknowledging the challenges that weak health systems can pose to progressing aspects of the HIV response (as mentioned above), the notable success in extending ART coverage over the past decade has been achieved largely in the absence of strong health systems. Indeed, the UNAIDS Fast Track agenda to meet the goal of ending AIDS is rather predicated on rapidly and intensively upscaling its vertical HIV testing and treatment delivery systems to achieve 90% of people living with HIV knowing their HIV status, 90% of people who know their status receiving treatment, and 90% of people on HIV treatment having a suppressed viral load so their immune system remains strong and they are no longer or much less infectious – by 2020. These targets rise to 95-95-95 by 2030.

The argument for vertical programming persists because in most low- and lower-middle income countries, national health systems remain far too weak to deliver an effective HIV response, much less the planned increase in intensity of HIV programming over the next 15 years. In the current climate, planning for a broad, international extension of UHC—and concomitant health systems strengthening—is not a viable proposition:

For the 49 Low-Income Countries, it is estimated that between 2015 and 2019 there will be a \$240 billion resource gap between [total health expenditure] and fiscal need for Universal Health Care (about 30% of the total fiscal need), or a \$550 billion resource gap if private expenditures on health is not included (about 70% of the fiscal need).²⁰

This, furthermore, raises a second issue of the feasibility of concurrently implementing health systems strengthening-based universal health coverage (minus the HIV component) and the vertical Fast Track to ending AIDS. The pressure on the financial, institutional and human resources of pursuing both agendas independently and simultaneously would likely work to the detriment of one or other agenda, or both.

Setting the finances aside for a moment, while most will agree the ideal is for the HIV response to be integrated into national health systems and other relevant sectoral services, premature integration presents serious risks. A strong argument to support the continuation of vertical programming over the next 15 years is that it aims to move the HIV epidemic, and thereby the response,

¹⁷ Schneider H, Blaauw D, Gilson L, Chabikuli N, Goudge J. 'Health systems and access to antiretroviral drugs for HIV in Southern Africa: service delivery and human resources challenges', *Reprod Health Matters* 2006,14:12-23.

¹⁸ Dickinson C, Martinez J, Whitaker D, Pearson M. *The Global Fund operating in a SWAp through a common fund: issues and lessons from Mozambique*. In. London: HLSP Institute; 2007.

¹⁹ Sangeeta Mookherji et al, 'Tracking the Global Fund HIV and AIDS resources used for sexual and reproductive health service integration: case study from Ethiopia,' *Globalization and Health* 11:21 (2015), p.2.

²⁰ Oxford Policy Management, 'Opportunities and challenges for the integration of health and HIV financing' (undated), p.4

to a point where the response can be effectively integrated into the health system, that is, the point at which the epidemic is under control and AIDS is no longer a public health concern. While health systems strengthening is at the heart of universal health coverage, in 2015, UHC remains at a largely conceptual stage in low and lower middle income countries – an ‘aspirational goal’ – and it may take years before a version of UHC reaches implementation stage at the country level.

Even if countries were able to fund UHC and expedite the process from concept to implementation (in an era of declining Overseas Development funding), the human resources required to deliver a stronger health system would take significant time to develop. The long lead-time in training many categories of health professional – a lead time that is in part dictated by the pace of human ability to obtain and retain knowledge and skills—means even well-planned, well-funded programmes of teaching and training would result in a relatively slow expansion of skilled domestic human resources for health.²¹ The ambitious 90-90-90 Fast Track targets are extremely resource-intensive, particularly in the initial years of the Fast Track timeframe; and UNAIDS acknowledges that, ‘to fast-track national [HIV] responses, extensive mobilization of human, institutional and financial resources will be needed.’²² Possible unwelcome outcomes of an integrated HIV/essential health services approach for human health resources include the HIV response competing with other priority health services for limited human resources, and one or both being left short; or that the machinery that has built up around the

HIV response over the past 15 years will dominate the implementation of any UHC agenda, skewing the determination of what counts as ‘essential’ health services.

The human resources that could be made available for HIV under a UHC approach are unlikely to be sufficient to deliver the Fast Track agenda, because an inevitably cumbersome national health system lacks the agility and responsiveness of a vertical programme to recruit, train and retain specialised staff in the numbers and at the times required. Essentially, by the time health systems in low and lower middle income countries have the capacity to deliver the necessary level of response to ‘end AIDS’, this critical window of opportunity we have before 2020 to act against AIDS may well have closed. UNAIDS projects the cost of inaction over the next five years will be huge: the lost opportunity to save 21 million lives, and prevent an additional 28 million people living with HIV by 2030, at an additional cost of US\$ 24 billion every year for antiretroviral therapy.²³ In addition, if we fail to stop the progress of AIDS during the course of the SDGs, we will place an unsupportable strain on the health systems of every high-prevalence country, whatever their composition—and it will last for generations, because the costs and care burdens are cumulative. By 2030,

84% of HIV-infected patients will have at least one non-communicable disease (NCD), up from 29% in 2010, with 28% of HIV-infected patients in 2030 having three or more NCDs. 54% of HIV-infected patients will be prescribed co-medications in 2030, compared with 13% in 2010, with 20% taking three or more co-medications. Most of this change will

²¹ Di McIntyre and Filip Meheus, *Fiscal Space for Domestic Funding of Health and Other Social Services*, Paper 5, Centre on Global Health Security Working Group Papers, London: The Royal Institute of International Affairs, March 2014

²² UNAIDS, *Fast-Track: ending the AIDS epidemic by 2030*, Geneva: UNAIDS, 2014, p.19

²³ UNAIDS, *Fast-Track: ending the AIDS epidemic by 2030*, Geneva: UNAIDS, 2014, p.26

be driven by increasing prevalence of cardiovascular disease and associated drugs. Because of contraindications and drug–drug interactions, in 2030, 40% of patients could have complications with the currently recommended first-line HIV regimens.²⁴

The imperative to act now in intensifying the AIDS response, before the challenge becomes so great we have little hope of containing it in the foreseeable future, means effectively that Fast Track cannot conceivably be delivered under a UHC integrated health systems agenda.

The lack of national-level preparedness for a swift inauguration of UHC and a near-simultaneous incorporation of HIV and AIDS services in high-prevalence countries is demonstrated not only by the fact that in many instances, donor-led responses have been vertical in character, but they have also run in parallel with ministries of finance, which have focused their efforts on other health concerns. One health minister of a high-prevalence African country commented on the implications of moving from a PEPFAR-funded vertical programme to largely domestic financing of the HIV response as follows:

I am aware of PEPFAR and the importance of this programme for us, of course, as are all my colleagues in government, but as Minister of Finance I cannot tell you with any certainty how much, to whom and with what effect PEPFAR funds have been implemented in my country. At one level, it is a success of the AIDS response that it is able to function so effectively outside of government, but, in consequence, any changes involving greater country ownership will necessitate

long-term government planning and this takes time. I cannot see how we can make such changes quickly, while sustaining and increasing the effectiveness and efficiency of the AIDS response.

While low and lower middle income countries may look to efficiency savings, borrowing, or additional income generation to close the projected total health expenditure resource gaps in AIDS funding noted earlier, they are highly unlikely to succeed in also funding a viable UHC package, leading to inevitable prioritisation. Without international disease-specific funding for HIV and a dedicated machinery to ensure and service the priority status of the HIV response, there is considerable risk that the HIV response will not be prioritised over maternal and child health, for example, especially in countries with epidemics that are concentrated in the Key Populations – notably sex workers, injecting drug users, and men who have sex with men (and, relatedly, prisoners). While politicians may possibly be aware of the longer-term implications of failing to address the epidemic in these key populations, notably the risk of a concentrated epidemic becoming generalised, their four-to-five year elected terms are not conducive to prioritising politically contentious, and largely ‘hidden’, population groups over the general electorate.

Even in countries with generalised epidemics, the success of anti-retroviral drugs (ARVs) in keeping people living with HIV healthy in many high prevalence countries, coupled with the persistent stigma of HIV which results often in non-disclosure of HIV status, means the HIV epidemic is now much less visible for people in real terms. In a sense, ARVs are masking the scale of the problem,

²⁴ M. Smit, K. Brinkman, S. Geerlings *et al*, on behalf of the ATHENA observational cohort, ‘Future challenges for clinical care of an ageing population infected with HIV: a modeling study,’ *Lancet Infectious Diseases* (10 June 2015), [http://dx.doi.org/10.1016/S1473-3099\(15\)00056-0](http://dx.doi.org/10.1016/S1473-3099(15)00056-0).

and the rationale for the intensification of the AIDS response over the next five to 15 years – the fact that the number of new HIV infections exceeds the number of people being enrolled on ART;²⁵ that challenges in ART adherence mean a rise in drug-resistant HIV and the need for much more expensive (i.e. unaffordable) second and third-line ARV treatments – at the inevitable expense of other basic health concerns, will likely have little purchase amongst an electorate that is, in large part, living day to day. As such, while the medical and human rights impetus for establishing UHC in low and lower middle income countries cannot reasonably be contested, it is vitally important that the enterprise should not be regarded as a quick

means of lessening donor dependency for the fight against HIV and AIDS.

Besides, it is not clear how any of the forms UHC might take would differ significantly from what usually comes under the heading 'health systems strengthening.' Indeed, it is difficult to conceive the inauguration of developing country universal health coverage in any but an aspirational sense that does not necessarily entail very considerable increases in human and material resources and concomitant administrative and managerial controls—in other words, the stuff of health systems strengthening in all its particulars.

Conclusion: AIDS program engagement with UHC

The relationship between HIV and AIDS services and country health systems is by no means dichotomous; in fact, there are efficiency gains to be had by more effectively coordinating overlapping services (treatment of TB and hepatitis C; screening; laboratory testing; the distribution of medicines).²⁶ The African Union Roadmap²⁷ had this as a priority action: 'Ensuring that] AIDS, TB and malaria investments are strategically coordinated to contribute to health systems strengthening.' Conditions certainly support this: a case study analysing the shift to second-line drugs in South Africa as treatment programmes mature suggested that 94% of the costs per patient will likely be attributable to drugs, laboratory testing, and clinic and pharmacy services.²⁸ It remains the case that the kinds of scale-up at the heart of the 2030 strategy will require a great deal of health systems strengthening in

many of the most important affected areas/communities, both in clinical and supporting medical functions. However, although this might suggest that a strategically directed, more horizontal approach to HIV and AIDS funding is appropriate, the extent and continuing progress of the disease and the necessarily expansive nature of the 2030 strategy mean that the response will need to remain essentially vertical, at least for the worst affected countries.

This notwithstanding, there is neither a clear choice nor an easy option in deliberating between vertical versus horizontal approaches in the years to come. As the earlier quoted passage from an African Finance Minister points out, the largest part of donor financing in his country was conducted as an externally generated and directed extra-governmental initiative, not

²⁵ UNAIDS, 'AIDS at 30: Nations at a Crossroads' (2011), available at: <http://reliefweb.int/sites/reliefweb.int/files/resources/aids-at-30.pdf>

²⁶ Dermot Mahler, 'Re-thinking global health sector efforts for HIV and tuberculosis epidemic control: promoting integration of programme activities within a strengthened health system,' *BMC Public Health* 10:394 (2010), available at: <http://www.biomedcentral.com/content/pdf/1471-2458-10-394.pdf>

as a partnership. The prospect of a dramatic reduction in funding, combined with this and other recipient governments' limited and essentially parallel engagement with AIDS could scarcely be worse preparation for 'country ownership' and integration of the HIV response into the national health system. It is clear that funding, on however large a scale, does not obviate the need for true partnerships and inclusive governance, and that 'shared responsibility' is such an important organisational and operational principle for the Fast Track about to commence.

If the Fast Track agenda is to be prioritised over universal health coverage, then, as far as possible, the AIDS response should actively seek to advance other priority health and development challenges identified under UHC and the SDGs more widely. While some have argued that the unprecedented attention and vertical funding for HIV has undermined or slowed health systems strengthening, it should be remembered that in previous decades, the reality of weak and under-resourced health systems in most of the world and limited access to basic health services for the majority of the population were common phenomena before the HIV response. More importantly, there is evidence that, if managed correctly, the HIV response can be a unique opportunity to strengthen the wider health sector through integration of services and promoting primary health care. There is evidence that the Public Health Approach to delivering HIV treatment has had a positive impact on the availability of primary health care services in general:

- Haiti: Introducing comprehensive AIDS care improved staff morale and increased the flow of essential medications and vaccines to treat and prevent other infections in rural Haiti. In other words, improving AIDS prevention and care led to a dramatic improvement in the quality of primary health care in general. For example, even vaccinations, ostensibly unrelated to HIV, became more readily available as access to AIDS health services broadened.²⁹
- Rwanda: During the past decade, the platforms designed to scale up HIV interventions have been used to strengthen primary care and to expand a growing package of health services across the country in an equitable way. Health facilities originally constructed with donor funding earmarked for the HIV response were tasked with integrated primary care, and national supply chains conceived to assist ART programmes were harnessed to deliver drugs and reagents for a wide range of conditions.³⁰
- Botswana: Cervical cancer in Botswana is one of the leading causes of premature death among women, particularly those who are HIV-positive. Limited cytology laboratory screening capacity for cervical cancer meant patients were being diagnosed late, with advanced or terminal stage disease. In 2013, the Government of Botswana introduced into HIV clinics lower-cost, but equally effective, 'see and treat' screening procedures, along with cryotherapy to destroy abnormal tissue in the cervix

²⁷ African Union, "Roadmap on Shared responsibility and Global Solidarity for AIDS, TB and Malaria Response in Africa" (26 September 2012), http://www.au.int/en/sites/default/files/Shared_Res_Roadmap_Rev_F%5B1%5D.pdf

²⁸ L. Long, M. Fox, I. Sanne and S. Rosen, 'The high cost of second-line antiretroviral therapy for HIV and AIDS in South Africa,' *AIDS* 24(6) (2010), pp.915-19; see also: R. Hecht et al, 'Financing of HIV and AIDS programme scale-up in low-income and middle-income countries, 2009-31,' *The Lancet* 376 (9748) (2010), pp.1254-60.

²⁹ David A. Walton, Paul E. Farmer, Wesler Lambert, Fernet Léandre, Serena P. Koenig and Joia S. Mukherjee, 'Integrated HIV Prevention and Care Strengthens Primary Health Care: Lessons from Rural Haiti,' *Journal of Public Health Policy*, Vol. 25, No. 2 (2004), pp. 137-158.

³⁰ Agnes Binagwaho, Paul E Farmer et al, 'Rwanda 20 years on: investing in life,' *The Lancet*, 2014-07-26, Volume 384, Issue 9940 (26 July 2014), pp.371-5.

by freezing it. Moreover, since the high incidence of cervical cancer in Botswana is linked to a sexually transmitted infection caused by the human papilloma virus (HPV), the targeted use of HIV prevention interventions, such as promotion of use of condoms, avoiding harmful use of alcohol, and male circumcision, are also likely to help prevent cervical cancer, along with HPV vaccination for school-age girls.³¹

In many ways, the HIV response over the past 30 years has been a trailblazer in global public health.³² It has mobilized political figures, the international community, donors, health care providers, civil society, academia and the private sector around a common purpose. It has stimulated unprecedented investments in health, and has played an important role in shaping the global health and development architecture. It has catalysed major breakthroughs in science and technology, including revitalizing infectious disease epidemiology and clinical management, creating a platform to tackle other newly emerging pathogens, such as SARS associated coronavirus and the H5N1 Avian Influenza virus. It has demonstrated the feasibility of rapidly scaling up clinical and public health programmes in challenging environments and inspired new models of service delivery, such as decentralized and integrated services,³³ task shifting and sharing, and intersectoral collaboration. It has additionally resulted in increased numbers of better trained health workers.³⁴ Moreover, it has demonstrated the importance of engaging communities and advocates in decision-making processes and highlighted their role in strengthening accountability

mechanisms and championing affordable access to treatment and care.

The difficulty in determining rules of engagement with UHCs for UNAIDS and other dedicated bodies is that in high-incidence countries there is so little to work on; and more widely, a post-2015 UNAIDS-UHC engagement strategy would be premature, because the critical data is so scant. There is no dedicated literature on the relationship between UHC and HIV; no straight-forward way to determine whether, how and in what particulars reduced HIV-related mortality and morbidity statistics can be ascribed to UHCs, where they exist; and there is no comparative data on UHC-non-UHC health systems strengthening for HIV preventive and AIDS palliative advances. And as the WHO/World Bank First Global Monitoring Report on Universal Health Coverage has outlined:

We face three main challenges in tracking UHC: first, sourcing reliable data on a broad set of health service coverage and financial protection indicators; second, disaggregating data to expose coverage inequities; third, measuring effective coverage, which not only includes whether people receive the services they need but also takes into account the quality of services provided and the ultimate impact on health. [...Because] health system strengthening is the main means by which countries can progress towards UHC, UHC monitoring needs to be integrated into broader health systems performance assessment, and because UHC includes health services and financial protection coverage, it is essential that UHC monitoring of both aspects takes

³¹ Doreen Ramogola-Masire, 'Cervical Cancer Prevention in HIV-Infected Women Using the "See and Treat" Approach in Botswana,' *JAIDS: Journal of Acquired Immune Deficiency Syndromes* 59(3), (1 March 2012), pp.308–13.

³² WHO, *HIV, Universal Health Coverage and the Post-2015 Development Agenda* (WHO Department of HIV and AIDS), 2014

³³ For a systematic literature review, see: M.L. Lindegren et al, 'Integration of HIV and AIDS services with maternal, neonatal and child health, nutrition, and family planning services,' *Cochrane Database of Systematic Reviews* Issue 9 (2012), Art. No.: CD010119. DOI: 10.1002/14651858.CD010119.

³⁴ El-Sadr WM, Abrams EJ. 'Scale-up of HIV care and treatment: can it transform healthcare services in resource-limited settings?', *Aids* 2007, 21 Suppl 5:S65-70.³⁵

place side by side. Many countries with weak health systems score strongly on financial protection coverage simply because citizens forgo needed health services. It is only by evaluating the coverage of health services and financial protection jointly that we can reach appropriate conclusions as to how effectively the health system is providing coverage.³⁵

The prospect of incorporating HIV and AIDS services into UHCs is at present both too remote and too risky. But the continuance of the AIDS response as a concerted, vertical program does not require health systems strengthening to be sidelined; indeed, the history of the AIDS response to date has demonstrated that the two are often mutually reinforcing. And the requirement to find efficiency savings for both primary health care and HIV and AIDS will have the benefit of consolidating and enlarging complementarity while avoiding waste and duplication. The emphasis should be on health systems strengthening, particularly in those areas which will provide across-the-board benefits, such as training personnel, screening services, data gathering and analysis, maternal/child health and purchasing. At the same time, bio-medical interventions require concomitant social support, health education and prevention campaigns.

Much fruitless wrangling and dispute can be avoided by a recognition that the laudable goal of Universal Health Coverage for humanity cannot be abstracted from the political, socio-economic and epidemiological realities of the nation states in which it must be planned, supported and sustainably financed. Indeed, as is evident

throughout the developed world, the standards, limitations and means to what counts as 'universal' in health care are as surprising in their range as they are in the variability of their quality and accessibility. Nor, as we have seen, has the verticality of the fight against HIV AND AIDS been free-standing from many of the fundamentals of health systems services. The AIDS campaign has required prioritisation, not exclusivity; the nature of the disease and the adaptability of basic services both ensure this—and so it will continue under the 'Fast Track' scheme to 2030.

It is certainly the case that planning for broader health systems strengthening (without which, universal health care will amount to little in terms of positive health outcomes) cannot wait for the planned 2030 AIDS outcomes. But what is required for that purpose is dedicated, detailed country studies which will reveal the fastest and most cost-effective means of strengthening weak and/or inaccessible health systems in ways that do not slow or compromise the UNAIDS 'Fast Track'—ideally, in areas that are common to both, or at least complementary. These matters need not be at the margins: laboratory work; testing; screening; the regularisation of standards; service delivery; securing supply chains; improved data collection and analysis; and better financial controls and accounting will all be fundamental to accomplishing 'more with less' in the health sectors of developing countries— an unavoidable necessity in the years to come. A great deal of promising research has already been conducted on the unanticipated benefits of HIV and AIDS work for other health sectors;³⁶ and on more broadly on cross-sectoral efficiencies and

³⁵ WHO, World Bank Group, *Tracking Universal Health Coverage: First Global Monitoring Report* (June 2015), available at: http://apps.who.int/iris/bitstream/10665/174536/1/9789241564977_eng.pdf?ua=1

³⁶ Isolde J Birdthistle et al, 'Integration of HIV and maternal healthcare in a high HIV-prevalence setting: analysis of client flow data over time in Swaziland,' *BMJ Open* 4(3) (2014). doi: 10.1136/bmjopen-2013-003715; Joana White et al, 'The Linked Response: Lessons Emerging from Integration of HIV and Reproductive Health Services in Cambodia,' *AIDS Research and Treatment* (2013). doi: 10.1155/2013/504792

benefits outside of HIV and AIDS work.³⁷ But this research is unevenly distributed across medical specialisations and disparate locations and conditions, with little or no follow-up on how positive developments might be built upon, scaled or adapted.

A pilot study could be constructed along the following lines: in one or more countries with both high-prevalence HIV and AIDS and weak health systems, the health system vulnerabilities crucial to both adequate health care provision and HIV and AIDS could quickly be identified—perhaps resource mobilization and pooling, service delivery, staff training and retention, supply chain reliability, placement, staffing and accessibility of clinics, key health and disease overlaps (maternal and child health; TB, Malaria and Hepatitis C screening and services) and the like. A literature survey and consultation with key national health planners and international donors could then build on or adapt best practice (if any) to select key development/strengthening priorities which would work to the development of basic health provision while further enabling the ‘UNAIDS Fast Track.’ We need to move quickly to make better use of the positive indicators that have been extant for some years.

The danger at present is that the normative momentum behind UHC will combine with the as-yet unspecified and uncoded drive toward ‘country ownership’ of HIV and AIDS—at precisely the moment of a necessary surge in costs and declining

international support. But the circle cannot be squared: the demands of defeating AIDS by 2030 can no more be folded into weak or newly-created UHCs in a timely manner than they could have been at the start of the Millennium Development Goals in 2000. Instead, we need to make a virtue of a necessity, by leveraging the requisites for the struggle against HIV and AIDS for broader public health; and vice-versa. Moreover, the opportunity to engage positively with the political and normative support which UHC has begun to accrue must be grasped without delay. It would be seriously remiss to allow the UHC campaign run effectively in parallel with UNAIDS, as it would in all probability eventuate in stale and counter-productive ‘vertical versus horizontal’ and higher/lower priorities characterizations. Instead, UNAIDS should work astutely and assiduously to reframe the prospect, not as a contest but as a rational sequencing which will ultimately deliver the largest and most enduring positive health outcomes.

There is no escape from an awareness that every health prioritisation and spending decision is also an act of exclusion: we have neither the conditions nor the resources to accomplish everything that the morally consequential health status of the world’s most impoverished peoples demands. On such a scale, it seems invidious to calculate on the basis of what amounts to triage, but calculate we must; and on any reckoning, the human consequences of a resurgent HIV and AIDS epidemic is not something humanity can risk.

³⁷ See for example: R. Mihigo *et al*, ‘African vaccination week as a vehicle for integrated health service delivery,’ *BMC Health Services Research*, 15:358 (2015).

INTEGRATION OF HIV FINANCING INTO HEALTH FINANCING SYSTEMS IN LOW- AND MIDDLE-INCOME COUNTRIES

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Conceptual Framework and Preliminary Findings

**FINAL DRAFT
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1. Introduction

1.1 Rationale

The fight against HIV & AIDS has achieved significant success. New infections are on the decline and increasing access to effective anti-retroviral therapy (ART) in low- and middle-income countries (LMICs) has transformed AIDS from a fatal to a long-term manageable condition. Yet the long-term costs of treatment, the prospect of

increasing numbers of patients needing more expensive second- and third-line drugs, and the need for continued prevention measures necessitate a high level of sustained funding for decades to come.

UNAIDS estimates that by 2015 approximately US\$24 billion will be needed for HIV interventions annually (WHO, UNICEF, & UNAIDS, 2013). While external donors have

largely driven the financing of the HIV & AIDS response in low- and middle-income countries (LMICs) to date, and have relied heavily on parallel or “vertical” financing and service delivery mechanisms, that context is beginning to change. Donor funding has recently leveled off: after rising from US\$1.2 billion in 2002 to US\$8.7 billion in 2008, donor commitments have remained largely constant, reaching US\$8.3 in 2012 (Kates & HIV/AIDS, 2012; UNAIDS & KFF, 2013). At the same time, many LMICs are increasingly able and willing to take ownership of their HIV & AIDS response thanks to economic growth (Union, 2012). In 2011, domestic sources accounted for the first time for more than half of the funding for HIV programs in LMICs (UNAIDS & KFF, 2013). Some countries remain heavily dependent on external funding, but this still represents a significant shift away from a donor-driven funding structure to a country-led model on average, a trend that is likely to continue.

To reduce dependency on external funding while maintaining progress in fighting the HIV epidemic, there is a clear need to expand resources for HIV domestically in low- and middle-income countries and begin to ensure the long-term sustainability of their HIV financing mechanisms. This need was recognized by UN Member States Political Declaration on HIV & AIDS in 2011 and by the African Union’s “Roadmap on Shared Responsibility and Global Solidarity for AIDS, TB, and Malaria Response in Africa” from 2012.

The push for greater and more sustainable domestic financing for HIV dovetails with efforts to promote universal health coverage (UHC) globally, and with increased reliance on pre-paid, pooled funding initiatives such as national/social health insurance programs as means to achieve UHC. These two trends have raised an important and complex policy debate for UNAIDS and the global health community: **should countries integrate the**

often “vertical” (disease-specific) financing of their HIV responses into their more “horizontal” (not disease-specific) health financing systems; and if so, how? This study is intended to outline concepts, provide a preliminary country scoping, and suggest next steps needed for UNAIDS and other global HIV & AIDS actors to develop policy guidance on these integration questions.

1.2 Definition of integration and country illustrations

“Integration of HIV & AIDS financing” refers here to the process of moving toward national health financing systems where funds for HIV & AIDS are collected, pooled, and used to pay for health services together with funds for other health services rather than through separate financing and payment structures. (A follow-on but separate concept is that such integrated funding can imply integrated delivery of HIV & AIDS services alongside other health services.)

Much of the debate on integrating HIV & AIDS financing with national health financing systems has focused largely on pre-paid, pooled funding initiatives, especially (but not exclusively) national or social health insurance programs at the country level. Mexico, Brazil, and Thailand are cited as examples of countries that moved towards early integration of HIV & AIDS services with largely publicly funded health financing mechanisms. These countries leveraged the opportunity afforded by health sector reform in the late 1990s to expand coverage of ART and other HIV-related goods and services at a time when treatment costs were high (Bautista-Arredondo, Dmytraczenko, Kombe, & Bertozzi, 2008).

As low prevalence countries that experienced significant economic growth in the last decade or more, the individual contexts of

the relationship between HIV & AIDS policy design, available funding envelope, and the pathway to integration are important to consider. For instance, Brazil decided in 1996 to provide ART to all, challenging conventional wisdom that LMICs should focus on prevention and that adherence would be hard to ensure. Within a decade, Brazil was paying US\$400 million for ARV drugs to support therapy for 180,000 individuals, with about 20,000 new patients joining treatment every year (Greco & Simao, 2007). But long term sustainability is threatened by increases in both the number of individuals who need to initiate ART each year and the complexity of the regimens for infected individuals who are surviving for longer periods of time. In Thailand, the government paid for about 71% of the total HIV & AIDS expenditure during 2008-11 in just treatment and care after first introducing a policy of tax-financed universal ART in only 2003 (Walaiporn Patcharanarumol et al., 2013). However, the impending departure of Global Fund funding may mean that financing and access related gaps will open up in reaching migrants and other key affected populations not currently served by the public healthcare system, affecting the pathway to full integration of HIV & AIDS financing. In Mexico, the nature of the challenges differs in that while Seguro Popular has funded a specialized integrated HIV & AIDS delivery model¹, unique problems with access, staffing, and quality in this vertical system continue to interfere with full integration and access (Saavedra, 2010).

The evidence from high-prevalence and high burden countries is mixed. As examples, Rwanda has a relatively well-functioning national health insurance system, while South

Africa remains highly fragmented between public and private sectors as the country's national health insurance vision is being designed and piloted. In both cases, ART continues to be delivered separately, although treatments of opportunistic infections are included in benefits packages of Rwanda's 'mutuelles' (Doetinchem, Lamontagne, & Greener, 2010). Before endorsing integration of HIV & AIDS services with horizontal health financing systems to enhance sustainability, there is a need to better evaluate cross-country variation in existing coverage and services and capacity for integration.

1.3 Note on HIV & AIDS program costs

HIV & AIDS programs are multifaceted. The National AIDS Spending Assessment (NASA) tool developed by UNAIDS measures spending incurred for²: prevention; care and treatment; orphans and vulnerable children; programme management and administration; human resources; social protection and social services; enabling environment (that is, issues around advocacy, human rights, institutional development, and gender); and HIV-related research. All of these primary cost categories have further subcategories that can be used for detailed estimation of resource needs and to track spending. A descriptive analysis of HIV & AIDS spending in 65 LMICs based on National Health Accounts data matched spending from public and international sources against NASA-defined line items (Amico, Aran, & Avila, 2010). That analysis found that about 95% of HIV & AIDS spending took place under direct health related categories³ such as drugs and human resources. These categories are likely to

¹ A network of 56 CAPASITS (outpatient centers for the prevention and care of AIDS and STDs).

² National AIDS Spending Assessment (NASA): Classification and Definitions. UNAIDS, 2009

³ Covering "activities whose primary purpose is to restore, improve and maintain health for the nation and for individuals," as defined by the WHO, such that they took place within the health system and were performed by health sector employees. This excludes NASA spending for orphans and vulnerable children, social protection and social services, enabling environment, and research.

retain their position as major cost drivers as the number of people needing HIV & AIDS treatment increases 2-3 fold over the next two decades (Hecht et al., 2010) and patients switch to more expensive drugs. For instance, a case study analyzing the shift to second-line drugs in South Africa as treatment programs mature suggested that 94% of the costs per patient will likely be attributable to drugs, laboratory testing, and clinic and pharmacy services (Long, Fox, Sanne, & Rosen, 2010).

As a conceptual framing and landscaping analysis, this study does not attempt to disaggregate into all categories of HIV & AIDS programs. Rather, it provides overviews of country mechanisms for financing aggregate program costs, which in light of the above generally relate to the dominant cost drivers of country and donor spending on HIV treatment and medical prevention. As next steps, it will be important for policymaking purposes to draw out financing integration-related challenges by cost category in individual country contexts. An overview of some general HIV & AIDS financing integration-related challenges that could inform such country-focused work has been provided in section 3 of this study.

1.4 Outline of the landscaping study

The following section of this study outlines Kutzin's (Kutzin, 2001) framework for disaggregating health financing systems into their core functions of revenue collection, pooling, and purchasing. Section 3 then briefly introduces six important challenges specific to integrating HIV & AIDS financing with countries' horizontal health financing regimes. Section 4 applies Kutzin's framework to analyze HIV & AIDS and general health financing for a sample of 13 countries with varying income, HIV prevalence, insurance coverage, and geographic profiles. This section groups the selected countries by high, low, or medium integration between HIV & AIDS and general health-related collection, pooling, and purchasing, and describes the existing institutional arrangements for each of the three financing functions for each country. Following this country scoping, section 5 presents conclusions, recommendations, and next steps for policymakers exploring the potential integration HIV & AIDS financing with domestic health financing systems.

2. Conceptual framework and approach to country scoping

2.1 Health financing framework for analysis of integration issues

The issue of integrating HIV financing into more horizontal health financing systems or, specifically, national or social health insurance programs, is a complex, multi-faceted one. To advance the debate and move toward policy guidance, the first necessary step is to agree on a framework

for examining the different functions of health financing, for both HIV and other health services, in given countries. This study proposes Kutzin's (Kutzin, 2001) well-known health financing framework to do so, and uses that framework to begin examining variation across countries in the three primary financing functions for HIV and other health needs: revenue collection, pooling, and purchasing—leaving provision

of services (delivery) aside for emphasis on integration in purely financing functions.

Revenue collection is defined as the collection of funds for HIV/health purposes and focuses on the sources of those funds, such as different types of taxes that constitute general government revenues; payroll and other taxes earmarked for particular health funds, premiums paid by companies and households; and external donor funds such as Global Fund grants, PEPFAR programs, etc. *Pooling* refers to the accumulation of pre-paid funds to cover the health care costs (HIV-related or otherwise) of a particular population, and can range from very small pools for limited types of costs to large, national pools for a very broad range of health benefits. Finally, *purchasing* involves the various mechanisms by which pooled funds are paid out to the providers of health care goods and services—including, as examples, salaries or fee-for-service payments to physicians and nurses, fixed prices for drugs, or global budgets for health facilities.

There is a great deal of variation across countries and across types of health services in how health sector organizations perform these functions, and this variation is one reason why careful examination of the different functions for HIV and non-HIV health needs is vital for consideration of potential integration. It is important to note, however, that this landscaping of HIV & AIDS-related collection, pooling, and purchasing implicitly focuses on the financing of HIV treatment and does not explicitly disaggregate financing and integration-related concerns for the comprehensive array of HIV & AIDS services and programs in countries at this stage.⁴

2.2 Coding levels of integration of HIV and non-HIV financing

This section explains the coding that resulted in the main summary table of Section 4.

Coding of the revenue collection function was the most objective and quantitative, based on whether less than 25% of HIV funding was from sources integrated with non-HIV health funding sources (low), between 25% and 74% was from integrated sources (medium), or whether 75% or more was from integrated sources (high). In coding level of integration of collection, external donor funding earmarked for HIV was assumed to be a non-integrated source of funding.

The coding of the pooling and purchasing functions was more subjective and involved benchmarking against countries perceived by country experts to have high integration in those functions (Thailand) or low integration (Vietnam), as well as against theoretical ideal-types of complete integration or complete lack thereof. A completely integrated pooling arrangement would be one where all funds destined for HIV & AIDS services were combined in a pool (or pools) of funds for non-HIV services, with no earmarking. Complete lack of integration would involve strict separation between HIV and non-HIV funding pools. Indicators and sources of information to make the low-medium-high ranking included the sources of HIV & AIDS related funds for the public health budget or pooled coverage schemes, the role of official HIV & AIDS bodies (planning and coordination of national response and/or collection and management of all or most funds), and the arrangements adopted by major donors (PEPFAR and Global Fund in

⁴ In future work, it may also be necessary to agree on the best framework, such as the NASA, with an appropriately detailed classification for types of HIV & AIDS goods and services (e.g., prevention, testing, care and treatment, ARVs, PMTCT, etc.). Careful, detailed policy recommendations in a given country will likely need to be disaggregated using a matrix of: 1) the three health financing functions and 2) the several components of HIV & AIDS responses.

many cases) for holding funds. In cases with low pooling integration, for instance, donor funds often formed a large share of HIV & AIDS spending, were off-budget of public health systems, and were managed as vertical pools to finance donor-led purchasing of goods and services.

Similarly, integration in the purchasing function was judged by the extent to which the flow of funds from purchasing/

funding entities to providers of HIV & AIDS goods and services occurred within the same channels and relied on the same payment mechanisms (e.g., tariffs, salaries, capitation, etc.) as the flow of funds for non-HIV services. Countries with high purchasing integration typically included a broad array of HIV& AIDS services and commodities in the (publicly or privately delivered) benefits packages of pre-paid pooled health funding initiatives for mass coverage.⁵

3. Challenges to integrating HIV & AIDS services

Some challenges to the integration of vertical health financing into broader health financing systems would be common across any disease or health need (TB, family planning, etc.), but others would be unique or especially important for certain diseases. This section outlines several challenges to integrating HIV & AIDS financing that are likely to be especially important given the particular nature of the disease and its current programmatic responses.

3.1 AIDS as a chronic disease among other NCDs

Until recently, diseases were considered either communicable (infectious) or chronic. As a result of advances in treatment, HIV infection now challenges that binary distinction. The World Health Organization describes chronic disease as a disease of long duration and slow progression. HIV & AIDS programs may now be the largest chronic care programs implemented in most low- and middle-income countries. Treatment needs are now lifelong

or chronic, in addition to acute, especially if programs are not effective in preventing new infections (Nigatu, 2012).

In addition to being a chronic disease competing with other chronic diseases for funding and delivery of services, HIV may also be involved in the etiology of other diseases, beyond what are known as opportunistic infections (that is, infections that take advantage of a weakened immune system). Phillips et al (Phillips, Neaton, & Lundgren, 2008) hypothesize that HIV may play a role in causing diseases such as non-AIDS cancers, liver cirrhosis, end-stage renal disease, and cardiovascular events such as myocardial infarctions, and strokes. A population with growing numbers of people with HIV on ART could give rise to an additional treatment burden for other non-AIDS health conditions.

As ART provision stabilizes incidence rates of HIV in Southern Africa, the chronic nature of AIDS, along with the global financial crisis, has raised serious concerns around the sustainability of global and national-

⁵ See also a special note on purchasing in Section 5.

level financing for ART program and other HIV prevention, care, and treatment efforts. ART allows PLHIV to return to work, but it also produces adherence challenges, serious illness episodes, transaction and opportunity costs related to lifelong treatment, and the need for continued investment of public resources to fund treatment programs (Colvin, 2011). While the number of new infections might decrease with increased ART use, global funding for HIV & AIDS is shrinking, both due to a constrained resource envelope for global health in general, and an increasing need for resources for other chronic diseases. Global funding for HIV has risen, for example, from around US\$300 million in 1996 to US\$18.9 billion as of 2012 (KFF, 2013), a massive increase to an amount that is still short of the UNAIDS estimate of US\$22 to US\$24 billion required to deal with the effects of HIV. WHO has highlighted the neglect of non-communicable diseases (NCDs) by comparing HIV to NCDs, which cause 80% of the deaths in developing countries but receive only 3% of global development assistance for health (Maher, Ford, Unwin, & Frontières, 2012).

The transformation of HIV into a chronic epidemic will therefore result in both: 1) increased HIV-specific funding needs, especially as total treatment burdens increase, and the cost of treatment, especially for second- and third-line treatment as patients develop resistance to the cheaper first-line of treatment, rises (also see section 3.4); 2) competing pressure for resources from other chronic health challenges.

3.2 HIV & AIDS components include private and public goods

Most HIV & AIDS treatment services are regarded as private or personal goods that

align well with the types of benefits typically covered by an insurance program or other pre-paid health financing approach (for instance, a national health service). Such coverage protects individuals at risk of needing PMTCT, hospitalization and treatment of opportunistic infections, and ARV treatment. However, other components of HIV & AIDS service delivery are public goods that may be less likely to be explicitly included in the benefits of individually-oriented insurance or other health financing systems. HIV & AIDS services of this nature include mass HIV awareness campaigns, HIV testing, and distribution of condoms.

Public HIV goods such as prevention services may run the risk of being dropped from a program when AIDS services are integrated into an insurance benefits package. This could render HIV & AIDS financing unsustainable as new infections continue to rise, even if treatment services exist. Especially where individually-oriented insurance programs constitute major pillars of health financing systems, care must be taken to include prevention services such as HIV testing and counseling in benefits packages ((Ahmed, Whiteside, & Regondi, 2011); (Doetinchem et al., 2010)). Vietnam is currently facing this potential challenge. As donor funding is projected to decrease, the government is exploring ways in which social health insurance can cover AIDS treatment services, but prevention services (currently financed by donors) will most likely be excluded from health insurance and will have to be financed separately by the government⁶.

3.3 Lack of data to cost integration of HIV & AIDS services

Several variables influence the costing of integrating HIV & AIDS services into a pre-

⁶ Interview, World Bank, Feb 2014

paid package of health services. These include the strength of countries' health systems, intellectual property regulations, epidemiological profiles, AIDS treatment guidelines, and differing capacities to produce drugs locally (Nunn, Fonseca, Bastos, Gruskin, & Salomon, 2007). To describe direct healthcare costs and establish cost drivers, one needs to know about variations in HIV prevalence among the insured and uninsured (moral hazard problem), the progression of disease (if PLWHA⁷ enroll at a late stage, the cost of treating them could be higher as they would need second- and third-line drugs), and the number of people qualifying for ART based on the CD4 count threshold selected by a country ((Leisegang et al., 2009); (Doetinchem et al., 2010)). Information about the type of epidemic and cost information about health service delivery is also required. While care and treatment might account for up to 50% of the cost of HIV & AIDS programs, other costs such as those related to human resources and program management, are also required to calculate costs of HIV & AIDS program integration.

For many countries, this information is not always readily available and will require a focused effort to collect data that will help health financing agencies price HIV & AIDS services for integration. A few countries such as South Africa, Ghana, Rwanda, and Lesotho have attempted to quantify the financial implications of HIV service coverage in insurance, and the overriding message is that any country investigating whether HIV services could be financed via health insurance will have to perform its own actuarial calculations incorporating the local circumstances and costs (Doetinchem et al., 2010). Hence, in India for instance, the release of the guidelines for covering

PLWHA has been delayed by the absence of data to price products, and the country's National AIDS Control Organization (NACO) recently tasked a working group to assist in collecting information to help in pricing an insurance product that will cover HIV & AIDS ((Saraswathy, 2013); (Syed, 2012)). It is true that, if HIV & AIDS services were integrated into broader health financing systems/programs, the total costs of all covered services would be the relevant amount to consider for financial sustainability, rather than the detailed costing information about any particular set of services. A first step toward integration, however, is to estimate the specific cost of HIV & AIDS services so that such systems/programs can better predict the financial implications of adding them.

3.4 Potential increase in long term costs

The cost of commodities, including medicines, is declining as intellectual property obstacles are removed or overcome, economies of scale increase, and treatment optimization reduces the doses of active pharmaceutical ingredients used in ART medicines. Even as more expensive regimens are incorporated into programs, prices have fallen due to larger transaction volumes, improved forecasting of demand, and increased competition among drug manufacturers. The annual ART cost per person in US dollars in the program supported by PEPFAR dropped from US\$ 1000 in 2004 to US\$ 400 as the number of direct ART recipients in the program increased from 0 to just under 4 million in the same time (WHO, 2013).

However, even as drug prices fall, it is important to note the significant cost drivers that might increase prices in the long term. A study from Brazil suggests that even with precipitous

⁷ People living with HIV & AIDS



declines in the prices for four patented ARVs, total drug expenditure for Brazil doubled from 2001 to 2005: the main driver of cost increases was an increase in the purchase quantities of specific drugs to manage increasing numbers of patients on ART (Nunn et al., 2007). Reaching rural and marginalized populations who currently do not access ART may be more difficult and expensive as treatment programs scale up. Testing and retesting services will need to be greatly expanded as more PLWHA are enrolled in to treatment programs, health systems strengthening investments might be needed, and the ratio of first- to second- and third-line treatment might shift towards more costly regimens as more and more patients live longer with ARTs. Instead of commodity prices falling in the long term, prices might actually increase because of patent restrictions on second and third line drugs to keep out the generic competition that has helped to drive down the prices of first-generation ARV medicines.

The potential rise in the cost of commodities and ARTs complicates the sustainable financing plan for HIV & AIDS programs, especially when these costs have to be integrated in to an existing horizontal health financing system. For example, in Vietnam, the Health Insurance Fund is reluctant to include HIV & AIDS in its SHI benefits package because the cost of ART and commodities for HIV & AIDS programs could increase disproportionately as more PLWHA are covered by SHI and require second- and third-line therapy, possibly crowding out coverage for other health problems.

3.5 Stigma is a greater issue for HIV & AIDS

HIV & AIDS stigma has long been documented as a barrier to the uptake of HIV testing and treatment services in numerous settings, particularly in resource limited countries ((Mahajan et al., 2008); (Nguyen, Oosterhoff, Ngoc, Wright, & Hardon, 2008)). However, a recent review of literature notes the lack

of data that would allow us to assess the influence of stigma reduction interventions on outcomes such as the uptake of and retention in ART programs. To date, there are no impact evaluations of HIV prevention programs that include stigma reduction as a component of the intervention itself. Given the emerging challenges in low- and middle-income countries of adherence to treatment programs, especially as drug-based prevention increases, such data are required to inform national responses to the epidemic (Stangl, Lloyd, Brady, Holland, & Baral, 2013).

Despite the lack of impact evaluation data, some observational studies show that stigma can affect the way services are delivered for HIV & AIDS programs, especially in countries with concentrated epidemics among marginalized populations. To achieve universal access to HIV prevention, treatment, and care, at-risk populations must be identified, supported, and engaged. This increases the likelihood that they will be stigmatized by others (non-HIV & AIDS patients) and further marginalized in an integrated health service facility, reducing their access to treatment, care, and prevention. In addition, prevention services that target at-risk populations such as people who inject drugs, sex workers and their clients, and men who have sex with men (MSM), could be at risk of being inadequately funded if AIDS services are integrated into health insurance or other pre-paid health funding pools and compete for resources with other services. Vietnam again provides an illustrative example. Until now, donors have fully supported prevention services and treatment services for at risk-populations. As donor funds are projected to decline, PLHIV (especially from groups that are criminalized: sex workers, MSM, IV-drug users) are concerned that they may face greater stigma and discrimination as donors reduce their support for HIV/AIDS, and these services are integrated into the formal health care system⁸.

3.6 Integrating financing confronts integrated delivery

Most low- and middle-income countries have fragile health systems that are under-resourced and in need of structural and policy reform. While resources for global health increased dramatically in the last decade, these funds were mainly targeted towards three specific diseases—AIDS, TB, and Malaria. There has been much debate about whether disease-specific funding has strengthened health systems ((Bernstein & Rosenzweig); (Levine & Oomman, 2009); (Biesma et al., 2009); (De Cock, El-Sadr, & Ghebreyesus, 2011)). While there is no clear answer to this question, one issue is clear: the rapid transition in disease burden to chronic diseases, including HIV & AIDS is an enormous challenge for many low- and middle-income countries with weak systems. Chronic illness demands a complex health-systems response that needs to be sustained across a continuum of care. The effective delivery of a comprehensive package of chronic disease interventions is dependent on a strong health financing system that can raise adequate funds so that people can access services and are protected from catastrophic health spending. The ability to create an effective, efficient, and equitable system will depend on a balance between the collection of revenues, the pooling of prepaid revenues in ways that allow risks to be shared, and the selection and purchase of specific interventions (WHO, 2007).

In this context, de-verticalizing HIV & AIDS service delivery into horizontal systems to minimize the fragmentation of coverage schemes and create sustainable financing sources for HIV & AIDS services can present several challenges for health service delivery. It is useful to consider specific components of a health system to understand how integrated financing might affect the delivery of HIV & AIDS services:

Supply Chains: Service providers cannot meet patients' full range of health needs without the full range of supplies. Supply chains are still very weak in many LIC and LMIC countries, despite improvements in disease-specific supply chains, such as for HIV & AIDS programs. Integrating stronger HIV & AIDS supply chains with weaker supply chains for other health commodities could compromise the quality of service delivery for HIV as well as for other health services.

Health Workforce: If AIDS services from donor funded outpatient clinics are integrated into publicly funded health systems, AIDS specialized health workers (who may or may not be on the public sector wage bill) may not follow their patients to these new public facilities. Resources to take on additional service areas and increases in clientele, or to effectively manage the changes in protocols to address the full range of health needs, are likely to be limited. Increasing workloads for a health workforce with limited capacity can lead to deteriorating motivation, services quality, and eventually staff burnout. These inherent tradeoffs between services and/or clients may constrain people's ability to access services which address the full range of their needs.

Health Information Systems: Underlying many of the weaknesses in planning and managing the delivery of health services are weak information systems, which are even further weakened by the introduction of numerous bespoke information systems that only serve particular donor needs. While information systems for HIV & AIDS programs have been established, it is unclear how these would be integrated into existing health information systems.

⁸ Interview: World Bank, Feb 2014



4. Landscaping HIV financing integration across select countries

This section evaluates the integration of HIV-specific financing into national health financing systems (including but not limited to national/social health insurance schemes) for an initial sample of 13 countries. The countries were purposively selected to capture varying geographic regions, epidemiological profiles, income levels, and modes of health

financing—in addition to availability of secondary data and literature on their health financing systems. This section provides a comprehensive summary of this landscaping exercise per country, financing function, and level of integration. Table 1 summarizes conclusions about levels of integration in each country and by financing function.

T.1 LEVELS OF INTEGRATION BETWEEN HIV FINANCING AND NON-HIV NATIONAL HEALTH FINANCING - DEGREE OF INTEGRATION OF HIV FINANCING FUNCTIONS

COUNTRY	REGION	EPIDEMIC TYPE ⁹	2012 ADULT HIV PREVALENCE ¹⁰	INCOME LEVEL ¹¹	COLLECTION	POOLING	PURCHASING
Zimbabwe	Africa	Generalized	14.7%	LIC	Low	Low	Low
Kenya	Africa	General	6.2%	LIC	Low	Medium	Low
Rwanda	Africa	Generalized	2.9%	LIC	Low	Medium	Medium
Nigeria	Africa	General	3.7%	LMIC	Low	Low	Low
Ghana	Africa	Generalized	1.4%	LMIC	Low	Medium	Medium
Vietnam	Asia	Concentrated/ Low-level	0.4%	LMIC	Low	Low	Low
Philippines	Asia	Low-level	<0.1%	LMIC	Medium	Medium	Medium
South Africa	Africa	Generalized	17.90%	UMIC	High	Medium	Medium
Brazil	LAC	Concentrated/ Low-level	0.3%	UMIC	High	High	High
Colombia	LAC	Concentrated/ Low-level	0.0%	UMIC	High	High	High
Thailand	Asia	Generalized	1.1%	UMIC	High	High	High
Mexico	LAC	Concentrated	0.2%	UMIC	High	High	High
Chile	LAC	Concentrated/ Low-level	0.4%	HIC	High	High	High

Source: Integration of HIV Financing into Health Financing Systems in Low- and Middle-Income Countries Conceptual Framework and Preliminary Findings

⁹ Epidemic type by adult prevalence of HIV: concentrated when <1% of population but >5% of any high risk group are HIV-positive; generalized when >1% of population is HIV-positive; low-level when relatively little HIV is measured in any group. Source: <http://www.who.int/hiv/strategic/surveillance/en/>.

¹⁰ Source: <http://data.worldbank.org/indicator/SH.DYN.AIDS.ZS>.

¹¹ 2012 GNI/Capita, Atlas method (current US\$): low income, US\$1,035 or less; lower middle income, US\$1,036 - US\$4,085; upper middle income, US\$4,086 - US\$12,615; and high income, US\$12,616 or more. Source: World DataBank: World Development Indicators.

As shown, countries are ranked according to their degree of integration for each financing function. There is a variety of epidemic types, income levels, and regions within the low, high, and medium integration rankings for each financing function among the countries in this sample. The following parts of this section group these countries by the integration rankings of their collection, pooling, and purchasing mechanisms for HIV financing, and present more detailed analysis and description of HIV and health system financing for these respective subgroups.

4.1 Integration in collection of funds

Low Integration:

Kenya, Nigeria, Rwanda, Zimbabwe, Ghana, and Vietnam display low levels of integration in the collection of funds for HIV and non-HIV health spending. These are all low or lower-middle income countries with, except for Vietnam, generalized HIV epidemics with adult prevalence higher than 1%. Health insurance coverage is lower than 40% in all but Rwanda and Vietnam.

In Rwanda, the health system is financed by a combination of state funds, individual contributions through health insurance and direct fees for services, and donor support. A network of centrally-coordinated community-based health insurance programs called MS or "health Mutuelles" covers 98% of Rwanda's population (McNeil, 2013). This coverage is funded by a combination of premiums, out-of-pocket spending, transfers from general tax revenue, and donor funding¹². The richest affiliates pay annual premiums of US\$8 while the poorest 25% are enrolled for free, and all have to pay US\$0.33 per hospital visit (Makaka, Breen, & Binagwaho, 2012). But these revenues

only account for 45% of the MS costs and the rest are contributed by government's tax revenue and international aid (McNeil, 2013). While Rwanda has 80% population coverage for HIV & AIDS treatment services, second only to Botswana in Africa ((McNeil, 2013) ; (Bulletin, 2013)), there is a significant disconnect between HIV and non-HIV health funding sources. The vast majority of HIV & AIDS funding (90.2%) is from external donors, with only 9.6% from (integrated) domestic public sources, resulting in the low integration ranking. PEPFAR (42.7% of total HIV funding) and the Global Fund (40.6% of total HIV funding) are the largest international donors in Rwanda (UNAI DS, 2012).

Funds for health spending in Vietnam primarily comprise general taxes, out-of-pocket payments, and international assistance. The Vietnam Social Security scheme, responsible for social health insurance, receives contributions from formal sector employees and subsidies from the federal and provincial governments for provision at the local level, but there is considerable out-of-pocket spending as well as private health insurance services (Tien, Phuong, Mathauer, & Phuong, 2011). HIV & AIDS services in Vietnam are primarily funded separately from this system as Vietnam has relied on donor funding (USG, DfID, Global Fund, World Bank, and Asian Development Bank) for HIV prevention and treatment through projects at stand-alone out-patient clinics. The 2009-10 NASA in Vietnam found that of the US\$267 million spent on HIV & AIDS, only 14.5% came from domestic public sources, while out-of-pocket payments by households (11.8%) and international support (73.7%) made up the rest (National Committee for AIDS, 2012). Of the international support, 69% (or 50% of overall spending in 2009-10) came as direct support from PEPFAR alone. Hence, AIDS financing is largely excluded from the social

health insurance plan and integration with generally-collected funds only exists when other related conditions are in the curative package, like opportunistic infections.

Sources of funding for health services in Ghana include general government revenues, which flow to the Ministry of Health through the health budget; private, pre-paid or out-of-pocket funds from companies and households; and several sources earmarked for Ghana's National Health Insurance Scheme (NHIS), including a VAT, social security tax carve-out, and premiums. The NHIS excludes HIV-related medicines and services except for treatment of opportunistic infections and, therefore, the collection of revenues for HIV & AIDS is not integrated with collection of revenues for NHIS. Earmarked donor funds flowing directly to the Ghana AIDS Commission and implementing agencies comprise 77% of AIDS spending in Ghana (with 13% from public and 10% from private sources making up the rest).

Kenya derives 51% of overall HIV & AIDS expenditures from donors, 28% from private sources, and 21% from domestic resources (Kenya National Health Accounts (NHA) 2009/10). It raises domestic resources for health through the National Hospital Insurance Fund (NHIF), which covers 16-20% of the population (mostly formal employees and civil servants), budgetary allocations from general taxes in the form of line items for health facilities and institutions, and out-of-pocket payments. Those employed in the formal sector pay a graduated premium based on income, capped at KES 320 but which has stagnated for about 16 years, while those who join voluntarily pay a much smaller flat rate capped at KES 160/month. NHIF also operates a separate comprehensive medical scheme for civil servants and the police (with premiums based on income). However, the NHIF does not provide coverage for regular

ARVs or HIV prevention. It only provides coverage for associated health incidents that require hospital stays. A sustainability task force in Kenya has recommended though that the NHIF's surplus be earmarked to support ARVs for members, which could increase overall integration of collection. Hence, at the moment, despite increased spending by the Government of Kenya (it now spends 25% (Kenya NHA 2009/10) of its overall health expenditures on HIV & AIDS), the proportion of domestic funding and the integration of HIV & AIDS resource mobilization with NHIF is still low overall.

Finally, Zimbabwe and Nigeria have the lowest socialized health coverage as well as low integration of collection of HIV & AIDS financing. In Zimbabwe, 20% of the country's total health expenditure is incurred by mutual healthcare funds, MAS, which are private not-for-profit organizations and have a formally-employed affiliate base comprising only 10% of the population (Shamu, Loewenson, Machedze, Mabika, & Africa, 2010). The wider public has access to the 70% of health facilities owned by the government, which is financed through the government's health budget funded through general taxes and transferred to the Ministry of Health and Child Welfare (Shamu et al., 2010). However, Zimbabwe's severe hyperinflation and economic downturn in 2007 and 2008 caused domestic health spending to collapse in dollar terms, needing greater infusion of aid funding in those two years. While domestic health spending recovered in 2009, HIV & AIDS spending has remained primarily vertically funded. The national AIDS levy, at 3% of corporate and payee taxes and managed by the National AIDS Trust Fund is the chief source of domestic AIDS funding (US\$5.7M in 2009, US\$20.5M in 2010, and US\$26.5M in 2011) (UNAIDS-GARP, 2012). However, funding for Zimbabwe's general AIDS expenditure comes primarily from PEPFAR, DFID, and Global Fund, who have

their own implementing partners and agents on the ground and contribute up to 85% of the HIV & AIDS spending (UNAIDS-GARP, 2012). Hence, collection of funds for AIDS services in Zimbabwe is largely separate from the general tax revenue used to fund the larger public health system.

Similarly, Nigeria too is extremely reliant on external funding. While social health insurance in Nigeria, called the National Health Insurance Scheme (NHIS), is available for anyone to enroll and formal sector businesses with more than 10 employees are required to join, the current mix of beneficiaries is primarily civil servants and formal sector employees. Hence, the NHIS only covers 4-5% of the population and participation is voluntary for the rest. Importantly, no HIV-related opportunistic illnesses/diseases are included in the benefit package and, according to the 2010 National AIDS Spending Assessment, international funds account for 75% of total expenditure on HIV & AIDS. Major international funders include the Global Fund (33% of total budget), PEPFAR (48% of total budget), DFID, CIDA, World Bank, and the UN System. Most domestic funding comes from the federal level (99.7%) as states have historically contributed very little. Thus, funds for AIDS financing are primarily collected through vertical mechanisms.

Medium Integration:

Philippines is the only country in the sample which displays medium health system integration in collection of financing for HIV & AIDS. PhilHealth—the social health insurance program in the Philippines—covers approximately 82% of the population

and collects revenues through individual contributions from beneficiaries as well as earmarked taxes, like the sin tax, to pay for the premium of the poor¹³. Domestic revenue for health services in the Philippines, which also accounts for 25% of overall HIV & AIDS expenditures, comes from general government revenues that flow to the Department of Health to fund supply-side delivery. This includes the provision of free ARVs for people living with HIV & AIDS. In addition to this, PhilHealth also provides HIV & AIDS benefits through the “Outpatient HIV/AIDS Treatment Package” to confirmed patients, which began in 2010. This benefit covers ARV drugs and medicines, laboratory examinations (for example, CD4 and viral load counts) and professional fees of service providers¹⁴. It does not, however, cover opportunistic infections¹⁵. Despite the small population in the Philippines that is in need of HIV & AIDS services (< 0.1%), the Philippines relies predominantly on external sources of funding to support HIV & AIDS services. 48% of total HIV & AIDS expenditures between 2009-2011 came from development partners (50% of this was from the Global Fund), and 27% through the private sector (DKT and Levi Strauss Foundation) (PNAC, 2012).

High Integration:

South Africa, Brazil, Colombia, Chile, Mexico, and Thailand have highly integrated collection of HIV & AIDS-related funds. As the table on integration ranks shows, these countries are all in the upper-middle or high income categories. With the exception of South Africa, they also all have low levels of HIV & AIDS prevalence and high levels of socialized healthcare coverage. However, these countries display considerable variety in the sources, methods,

¹³ Joint Learning Network for Universal Health Coverage: Philippines.

¹⁴ PhilHealth Circular on “Outpatient HIV/AIDS Treatment Package”, 2010.

¹⁵ As an HIV-related opportunistic infection, Tuberculosis is covered through the TB-DOTS package. PhilHealth members or dependents can access the TB-DOTS package separately.



and organizational structures for collecting funds for general as well as HIV & AIDS-related health expenditures.

In South Africa, an upper-middle income sub-Saharan country with a severe generalized HIV & AIDS epidemic, the largest HIV burden in the world, and low socialized health coverage, the most recent NASA found that in 2009-2010, domestic public revenues made up approximately 75% of HIV and TB spending, while external and private sources respectively comprised 16% and 8%. The 75% of funding from domestic public revenues sources is considered integrated, as it is sourced from the same array of taxes (income, VAT, excise, and fuel) that are collected by the South African Revenue Service, under the National Treasury, to fund health services in the public sector. Other than the vast majority of the public dependent on the public health infrastructure, Medical Schemes in the private sector cover about 16% of the population from premiums collected from companies and individual members and used to pay for HIV and non-HIV health benefits (depending on the benefit package of a particular scheme and regulations for the Prescribed Minimum Benefits that Medical Schemes must cover).

Health coverage in Mexico is split almost evenly between formal sector social security and a social insurance program for informal workers called Seguro Popular (SP). The former is paid for through payroll taxes and government subsidies, while the latter is funded through transfers to states in the form of social and solidarity contributions from general federal government revenue (a mix of oil revenues, and income and consumption taxes), contributions from the state health budgets, and some small contribution from premiums (Barofsky, 2011).

IMSS and ISSSTE, two of the largest social security providers, cover about 97% of the formally employed half of the population, and provide full HIV & AIDS treatment as part of their benefits package. For Seguro Popular, a centrally managed fund for protection against catastrophic expenditures, the FPGC, covers 49 high-cost, specialized interventions, including treatment for HIV & AIDS (Frenk, Gómez-Dantés, & Knaul, 2009). The FPGC equals 8% of the federal social contribution, plus the federal and state solidarity contributions, and is thus highly integrated with general collection of health financing (Frenk et al., 2009).

Similarly in Latin America, Colombia, Chile, and Brazil also display high levels of integration in the collection of HIV & AIDS-related funds. Health financing in Colombia is dominated by the General System for Social Security for Health, SGSSS, which covers 96% of the population (Vargas-Zea, Castro, Rodríguez-Páez, Téllez, & Salazar-Arias, 2012). It has a contributory regime for formal sector workers and high earners who must contribute 12.5% of their income to avail a benefits package that has recently been unified across the contributory regime and a subsidized regime. The subsidized regime for poorer affiliates receives 1.5% of the contributory regime's contributions and funding from general taxes. The Basic Health Plan, a safety net financed by general taxes and composed of public health facilities catering to all citizens and providing health-related public goods, forms a third prong for healthcare delivery. Treatment for HIV & AIDS is included as catastrophic care for both contributory and subsidized regime members (Giedion & Uribe, 2009). Since public sector health spending accounts for about 72.7% of total health expenditures (general taxes, funds from the state petroleum company,

¹⁶ World Bank's World Databank, 2012

automobile insurance funds, and obligatory payroll taxes) and out-of-pocket spending makes up another 19.5% of total health expenditures (with the rest spent by private health insurers)¹⁶, collection of HIV & AIDS funds is well-integrated with collection of general health expenditure in Colombia.

Chile and Brazil have increased universal health coverage and the integration of HIV & AIDS financing through a combination of public and private insurance. In Chile, about 80% of the population has access to healthcare through the social health insurance program, FONASA, and another 18% of the public uses one of Chile's seven private health insurance entities known as the ISAPRES. This system is financed from four main sources: mandatory and voluntary SHI health contributions from formal and informal workers (28%), central government general tax revenue (30%), direct out-of-pocket spending by households (38%), and voluntary contributions to SHI and commercial insurers (4%).¹⁷ For a 7% mandatory payroll contribution from formal or independent workers earning above a minimum income threshold (Becerril-Montekio, Reyes, & Manuel, 2011), FONASA and ISAPRES cover a minimum guaranteed package of 80 explicit benefits (known as AUGE benefits), including HIV & AIDS services and treatment. Retired, poor, or unemployed citizens can access FONASA free of charge. Hence, since HIV & AIDS financing in Chile is collected as part of the overall SHI financing needed to provide the guaranteed AUGE benefits package, it can be considered highly integrated.

Brazil relies on a decentralized public health system for free universal coverage established by law as a right. While the Unified

Health System (SUS) offers comprehensive health coverage and the entire population is eligible to receive services, about 25% opt for private insurers¹⁸. Under the SUS, policy and provision have been devolved to the level of the municipalities (with states and the federal government running the larger or teaching hospitals); funds collection takes place at the federal, state, and municipal levels; and the resources all flow down to the municipal level. The National Health Fund, funded from general taxes at the federal level, transfers resources to the state and municipal funds, to public and private providers, and to special SUS programs like the primary care-focused PSF. HIV & AIDS has been a priority area under the PSF: the public health system supports a network of hospitals, laboratories, and care centers for diagnosis, prevention, treatment and follow-up, which are all established and maintained with public funds to provide HIV & AIDS-related treatment and prevention services free of charge. Since similar resource allocation occurs at the state and municipal levels as well, collection of funds for HIV & AIDS is well-integrated on the whole into the wider health financing mechanisms in Brazil.

Finally, the Universal Coverage Scheme in Thailand serves as the main vehicle of integrating collection of financing for HIV & AIDS with the sources, methods, and structures of funding for the overall health system. Since its launch in 2002, the UCS, along with the civil service and formal sector social security medical benefits programs, has increased health insurance coverage to over 98% of the population in Thailand (75% of the population on UCS, 16% on SS, 8% on CSMB, and negligible on private insurance)¹⁹. Healthcare under the UCS is free at the point of service and

¹⁷ Fonasa, 2011. Bono AUGE, Presentation: January 2011.

¹⁸ Joint Learning Network for Universal Health Coverage—Brazil .

¹⁹ Thailand National Health Security office

no premiums are charged. Instead, funding for the UCS is provided centrally from (progressive) general tax revenue, which is a mix of income, excise, corporate, VAT, and non-tax revenues, and depends on an annually-determined capitation rate and the number of UCS affiliates in each budget year (Satharanasuk, 2012). Importantly, since 2006, financing authority for the Universal ART program launched in 2003 has been transferred to the UCS, resulting in increased domestic spending on treatment ((Walaiporn Patcharanarumol et al., 2013); (NSP 2007-11)). The universal coverage, social security, and civil service schemes now account for 94% of all patients on ART. As a result, primarily treatment-focused domestic resources now make up 85% of HIV & AIDS spending in Thailand, while 70% of the rest comes from the Global Fund which funds prevention as well as more targeted treatment for some marginalized key affected populations ((Walaiporn Patcharanarumol et al., 2013); (NSP 2007-11)). Since this domestic spending derives from the UCS and other regular sources of health funds, HIV & AIDS collection is highly integrated in Thailand.

4.2 Integration in pooling

Low Integration:

Nigeria, Zimbabwe, and Vietnam are the only three countries in the sample for this study where the pooling of HIV & AIDS funds is not integrated with the wider health financing pool. All three of these countries are in the low or lower-middle income categories and have low or inadequate insurance coverage for healthcare for their populations. Zimbabwe and Nigeria also suffer from generalized HIV & AIDS epidemics. Importantly, collection of HIV & AIDS funds in Nigeria, Zimbabwe, and Vietnam is not integrated with general health system financing. Vertically-financed,

donor-supported financing systems in Zimbabwe and Nigeria provide 85% and 75% of HIV & AIDS financing in Zimbabwe and Nigeria respectively, while most funding in Vietnam is also sourced externally. This low integration in collection is thus also reflected in the pooling of HIV & AIDS funds.

In Nigeria, domestic revenues for health are pooled with the federal ministry of health, the National Health Insurance Scheme (NHIS), and in additional insurance pools under CBHI-like models. Federal Ministry of Health coordinates the health sector component of the HIV & AIDS response while other line ministries take charge of inter-related activities. The National Agency for the Control of AIDS (NACA)—the government body responsible for coordinating the HIV & AIDS response—appears to mainly coordinate, and not pool, funding flows. Since most funding for HIV & AIDS from external donors is not incorporated in the general health budget and NHIS does not cover health services for the general population, there is low integration of HIV & AIDS pooling in Nigeria. Similarly, in Zimbabwe where 90% of the population accesses public-funded healthcare, HIV & AIDS funds are also primarily pooled separately from general health funding. The main domestic financing program, a 3% AIDS levy, comprises only 15% of overall financing and is pooled with the National AIDS Trust Fund under the National AIDS Council. Donor funding, however, is pooled in multiple separate arrangements. PEPFAR funds are channeled to service delivery sites or providers directly supported by U.S. government (PEPFAR COP, 2012), while UNDP has had the charge of managing and distributing Global Fund support in Zimbabwe (UNDP). Additionally, various development partners have pooled HIV & AIDS-related funding in recent years under arrangements like the Extended Support Program (CIDA, DFID, Norwegian Aid, Irish Aid and SIDA) and the Programme

of Support (Australia, the European Union, Germany, Netherlands, New Zealand, Sweden and the United Kingdom) (UNAIDS-GARP, 2012). Thus, the pooling of HIV funds, like their collection, is very fragmented in Zimbabwe.

Finally, in Vietnam, general health funds are primarily pooled in one national fund with Vietnam Social Security (VSS). It receives premium contributions under all 25 membership categories (including subsidized ones) from all provinces for the country's mandatory SHI system as well as for a voluntary non-commercial health insurance scheme (enrolling only 21% those ineligible for SHI) (Tien et al., 2011). Since VSS does not cover HIV & AIDS services, HIV & AIDS-related funding is pooled separately with different sources. As explained before, only 14.5% of HIV & AIDS spending in Vietnam is public and almost 74% of the resources come from international sources, with household spending making up the rest. PEPFAR funds constitute 50% of overall spending (69% of international financing) and are channeled directly to USG-supported service delivery sites or providers, while bilateral (mainly DFID) and multilateral (mainly WB, ADB, & GF) sources make up another 24%. All these resources are pooled separately from overall domestic health funding, with funders relying on local financing agents and providers to deliver services. Hence, HIV & AIDS pooling integration is categorized as low in Vietnam.

Medium Integration:

Countries in the sample with medium level of integration for pooling of HIV & AIDS funds include Ghana, Kenya, Rwanda, South Africa, and Philippines. All of these, except for South Africa, are low and lower-middle income countries, and, except for Philippines, they all have generalized HIV & AIDS epidemics. Also, while Rwanda,

Ghana, and Kenya are ranked low for collection of HIV & AIDS funds, South Africa and Philippines are ranked high-to-medium and medium, respectively.

In Ghana, pooling for HIV financing is somewhat more integrated than collection, but it is still far from highly integrated. Of the 77% of HIV & AIDS spending sourced from external donors in 2010, 21% was sent to a pooled fund overseen by the Ghana AIDS Commission, which constitutes a non-integrated pool since it is used uniquely for HIV & AIDS. However, there is some integrated pooling of public funds for HIV and non-HIV uses in the health budget, the wage bill for public sector health workers, and public health facility capital costs, which is the rationale for coding Ghana's pooling integration as medium. To attain higher degrees of pooling integration, donors could direct higher proportions of their resources to the Ministry of Health's general health budget and to the nationally-pooled National Health Insurance Fund from where NHIS expenditures are sourced.

Similarly, in Kenya, there is some integration of domestic and external HIV & AIDS funding into the government budget. Government funds are pooled by the Treasury, but certain donor funds are considered "on-budget" and are also part of this budget (Kenya NASA 2007/08). This amount is channeled from the Treasury to the Ministry of Health (formerly Ministry of Public Health and Sanitation) through the National AIDS and STI control program and National AIDS Control Council (NACC). The NACC then coordinates transfers to Constituency AIDS Committees (CACs) and transfers to line ministries (Kenya NASA 2007/08). Overall, the ministry of health only manages 17% of HIV & AIDS funds, with other ministries and NACC managing an additional 5% and the NHIF only managing 4.1% (Kenya NHA 2009/10). On the other hand, "off-budget"

donor funding, much larger than the “on-budget” amount and a majority of HIV & AIDS funding in Kenya, is considered “extra-budgetary” and channeled directly through NGOs. The rest of the funds comprise households (20%) and private employer insurance. However, the Kenya National AIDS Strategic Plan 2009/10-2012/13 envisions an eventual pooled funding mechanism which would eliminate the NACC’s role as the administrator of funds for public services. Instead, management of public funds would remain with line ministries, leaving NACC responsible only for the management of non-public entities. The line ministries would then directly fund their decentralized structures. Hence, for now, HIV & AIDS funding is only somewhat pooled with financing for the broader health system.

In Rwanda, however, though mass health coverage has been achieved through a network of centrally-coordinated “health mutuelles” (MS) under a CBHI model, there is only medium integration in pooling of HIV & AIDS funds. While only 9.6% of the HIV & AIDS funds come from public sources and a little over 83% come from just PEPFAR and the Global Fund, resulting in low integration in collection (UNAIDS, 2012), there is greater harmonization in pooling: the Global Fund has recently launched a new partnership for implementing Rwanda’s 2013-18 national HIV strategic plan with “sharply reduced oversight” (Rege, 2014). Under the agreement, Rwanda will have more flexibility on spending US\$204 million in Global Fund support, allowing for re-investing savings in the HIV response as part of the national health program. Rwanda will also be responsible for monitoring and evaluation with joint verification of results by the Global Fund. This pioneering GF

mechanism aims to align external support with existing systems and strategy in Rwanda and ties future funding to changes in impact and outcome indicators. These funds will be presumably pooled with MS funds at the local community level, but they do, however, seem to be earmarked for AIDS spending. Similarly, a joint pool for performance-based transfer of funding from central to local governments also pays for many HIV & AIDS services, and receives contributions from the government of Rwanda and various international partners²⁰. PEPFAR, on the other hand, mainly channels funds directly to USG supported delivery sites and providers for prevention, treatment, and capacity building activities. Though there is some ongoing or planned transfer of resources to the Government of Rwanda for commodities and warehousing and for clinical services, most PEPFAR support remains vertical and off-budget (PEPFAR, 2013). Hence, overall, Rwanda, displays greater, but still only partial, integration in the pooling function for HIV & AIDS financing than it does in the collection one.

In South Africa, pooling of HIV financing begins with the same pattern as the collection function—dominated by the integrated pooling of domestic public revenues at the national level; integrated pooling of funds by individual Medical Schemes in the private sector; and non-integrated, HIV-earmarked donor funding. However, domestic public funds that are initially collected and pooled by National Treasury are then allocated by Treasury to the national, provincial, and local levels of government. Funds for provinces and local governments are allotted as “equitable shares” and “conditional grants,” with conditional grants for health flowing through the National Department of Health

²⁰ Such as the World Bank, Government of Rwanda (PHRD grant), Bank-Netherlands Partnership Program (BNPP) ESRC/DFID, and GDN.

and distributed as earmarked grants for particular purposes to provinces. Therefore, while there is a high degree of integration in initial collection of funds at the national level, funds received by provinces for the purpose of implementing HIV & AIDS programs are no longer considered an integrated pool of funding for general health needs. Overall, HIV & AIDS financing integration drops to medium when moving from collection to pooling.

Finally, pooling is ranked medium in the Philippines because there is integrated pooling of domestic resources for health within the Department of Health, which provides supply-side delivery of ARVs, and PhilHealth, the social health insurance program which covers 82% of the population and provides outpatient HIV & AIDS treatment. Public hospitals that are designated as “treatment hubs” also receive integrated funding. Also, funding from the Global Fund, which represents 50% of the funding from development partners, too flows through the DOH before it is distributed to NGOs²¹. However, external funding is earmarked for HIV & AIDS services; thus increasing pooling integration from its current rank of medium would require that international donors provide direct support to the general health budget for the Department of Health as well as PhilHealth.

High Integration:

Five countries—Thailand, Mexico, Colombia, Brazil, and Chile—display high levels of integration in pooling HIV & AIDS funds with those for financing wider public health spending. Here, the four countries other than Thailand are all in Latin America

and have low HIV-prevalence (<1%). They are all upper-middle or high income countries and have achieved mass health coverage through various systems. However, as the following description shows, there is considerable variety in the mechanisms involved for pooling HIV & AIDS funds.

Mexico, Colombia, Brazil, and Chile, the four Latin American countries in this subgroup, have a diversity of mechanisms to pool health funds. In Mexico, as discussed before, healthcare for about 50% of the population working in the formal sector, including services for HIV & AIDS, is paid for through payroll taxes and government subsidies. Social security providers IMSS and ISSSTE pool these health funds nationally for 97% of these enrollees. Similarly, although general pooling, purchasing, and provision take place at the state level in Seguro Popular, the social insurance program for the rest of the population, the catastrophic fund covering HIV & AIDS services (the FPGC; described above) is managed at the federal level to assure adequate risk pooling²². On the other hand, In Colombia, the General System for Social Security for Health (SGSSS) covers 96% of the population under its contributory and subsidized regimes, with both regimes covering HIV & AIDS services as catastrophic spending. Under SGSSS, revenue from the 12.5% monthly income contribution from the contributory regime reverts to the central Solidarity and Guarantee Fund (FOSYGA) with the Ministry of Social Protection, from where it is transferred for pooling and purchasing to a network of insurance companies (EPS-C) based on a nominal capitation rate for their enrollees (Melgarejo, 2013). 1.5% of this revenue stays in FOSYGA to finance, along with government taxes, the subsidized regime under SGSSS. Funds

21 Global Fund TFM-NFM-IRR Project- AIDS Society of the Philippines.

22 Respondent interviews indicate the government eventually plans to integrate the FPGC with the common pool for greater sustainability.

under this regime are also paid out to another set of insurance companies (EPS-C) for pooling and purchasing based on another nominal capitation rate for the concerned population base.

Under socialized healthcare in Brazil's comprehensive and decentralized Unified Health System, funds are collected at the federal, state, and local levels but flow down to the local level. Hence, the National Health Fund transfers resources to the State Health Funds and to the Municipal Health Funds which consolidate funds from different sources. The NHF also transfers resources to PSF, the Family Health Program which covers HIV & AIDS. The federal government has also financed production and procurement of ARVs since the early-1990s. Similarly, in Chile, 80% of the public is enrolled with the government's health insurance program FONASA while another 18% benefits from coverage by private insurers called ISAPRES. Both these mechanisms ensure the provision of the benefits package under AUGE, Chile's health system reform, which includes HIV & AIDS services. Funds are pooled in a large national fund under FONASA, while the seven ISAPRES can have risk adjustment mechanisms between their funds. Hence, while there are several pools of healthcare funds, they are all used to pay for the benefits covered under AUGE. Overall, while the four Latin American countries in this subgroup have different health system financing mechanisms, they all have high insurance enrollment, cover HIV & AIDS services, and provide financing through the regular, and thus highly integrated, collection and pooling arrangements for HIV & AIDS.

Finally, Thailand too has highly integrated pooling of HIV & AIDS funding. In Thailand, about 98% of the population is covered

by the Universal Coverage Scheme and the civil service and formal sector social security medical benefits programs. These three funding pools account for 94% of the 240,000 Thai citizens on ART (72%, 3%, & 19%, respectively)²³. As the main coverage mechanism covering 75% of the population, funding for the UCS is pooled by the National Health Security Office and channeled to 13 regional offices all over the country. Hence, although parallel, mainly Global Fund-funded CSO outreach caters to Thai and non-Thai key affected populations where government has poor access, HIV & AIDS funds are primarily sourced from regular pools for health funding.

4.3 Integration in purchasing

Low Integration:

Purchasing for HIV & AIDS services in Kenya, Nigeria, Zimbabwe, and Vietnam is not integrated with the general purchasing mechanisms in these countries for health services and commodities. While all four of the countries in this subgroup of the sample in this study are low or lower-middle income, Vietnam is the only one not in sub-Saharan Africa or suffering from a generalized HIV epidemic. Also, except for Kenya which has medium integration for pooling of HIV & AIDS funds, all of these countries have low integration in the other financing functions as well.

According to the last National AIDS Spending Assessment that was done in 2007/8, 45% of spending and provision in Kenya was in public facilities, 24% in NGOs or CBOs, 24% in faith-based organizations, and 7% in bilateral or multi-laterals

²³ Thailand National Health Security office

arrangements. Most domestic funding is coordinated by AIDS Coordinating Units (ACUs) and Central Planning and Project Monitoring Units (CPPMUs) in line ministries. Line ministries are responsible for sharing HIV resources and plans with districts which can incur expenses to undertake agreed upon HIV activities. Although some of the donor money is integrated into the Ministry budget and therefore streamlined with the Ministry's contracting and purchasing systems (resulting in the medium rank for pooling integration), the majority of donor funding supports separate procurement of commodities and support to NGOs or FBOs. For instance, PEPFAR, the largest HIV & AIDS initiative in Kenya, procures and distributes ARVs and medicines for opportunistic infections through Mission for Essential Drugs and Supplies (MEDS) and Kenya Medical Supplies Agency (KEMSA; a state corporation working under the Ministry of Health), and laboratory commodities through Supply Chain Management Systems (SCMS). Similarly, the Clinton Health Access Initiative and the Global Fund procure commodities internationally. The Japan International Cooperation Agency, another prominent HIV & AIDS funder in Kenya, also purchases test kits from international vendors and delivers commodities for local distribution from KEMSA. Hence, HIV & AIDS purchasing in Kenya is quite fragmented, with numerous vertical mechanisms for channeling donor funds resulting in low integration with general public health purchasing.

In Nigeria, the National Agency for the Control of AIDS (NACA) is responsible for the coordination of the AIDS response at the national level. It coordinates state and local agencies for the control of AIDS (SACAs and LACAs), CSOs, private and public sectors, and development partners. The HIV/AIDS Division, (formerly, National AIDS and STI Control Programme-NASCP) in the Ministry of Health coordinates the health

sector response. Actual service delivery takes place through a number of channels, including Nigeria's public health system, private health facilities, and civil society organizations (CSOs) as well as faith-based organizations (FBOs). Though the response is decentralized to the State (SACAs) and Local (LACAs) levels, the ownership by states and localities remains low and is a challenge for successful implementation. Purchasing within the public health system happens at the SACA and LACA levels which is financed by federal funding transferred to state and local authorities as a statutory allocation. While the exact share of primary health care financed from public sources varies across states, as some states have greater share of NGOs and the private sector, local governments consistently tend to be the largest purchasers of health staff, facilities, and commodities. However, this is not the case for Nigeria's HIV response. PEPFAR and the Global Fund, together accounting for some 81% of HIV & AIDS spending in Nigeria, have parallel mechanisms for purchasing targeted services and interventions. PEPFAR directly channels funds to service delivery sites or partners, while Global Fund grants are managed and used for purchasing HIV & AIDS services and commodities through Principal and Sub Recipients such as government and NGO partners, mainly NACA, Society for Family Health, Association for Reproductive & Family Health, and the Yakubu Gowon Centre for International Co-operation. Thus, like collection and pooling, HIV & AIDS-related purchasing in Nigeria is significantly fragmented and carried out through vertically-funded mechanisms.

In Zimbabwe, the national AIDS levy under the National AIDS Council is the main public funding mechanism. It raised US\$26.5M in 2011 and used about 50% of these funds for procuring ARVs and the rest for other HIV-related services and administration. However, purchasing of services and

commodities in 85% of the HIV & AIDS response funded mainly by international partners, like PEPFAR, Global Fund, and bilateral consortiums like the Extended Support Program and the Programme of Support, is undertaken through distinct and disjointed mechanisms. PEPFAR purchases commodities and services through direct support to delivery sites and providers, although it contributes the ARVs it purchases for Zimbabwe, targeted at 17% and 15% of the national ARV supplies in 2012 and 2013, to the national commodity pool maintained by the Ministry of Health & Child Welfare. PEPFAR's support to the public program also funds key positions in the headquarter of the national ART program, pays for leadership and management training to more than 60% of the "District Health Executive" teams managing the ART program, and finances 167 laboratories monitoring people on ARVs. However, these funds are channeled through direct PEPFAR administration. UN agencies and the Global Fund, with grants by the latter also managed by UNDP as a principal recipient, account for about 47% of the international response in Zimbabwe. This funding also independently finances ARV procurement and supports prevention and capacity development for institutions and communities. Hence, purchasing for HIV & AIDS in Zimbabwe is primarily located outside the public health-related procurement mechanisms.

Finally, in Vietnam as well, HIV & AIDS purchasing is considerably fragmented from that in the general health system. Vietnam Social Security, the public health coverage program with over 60% enrollment does not cover HIV & AIDS services for adults. Instead, public expenses on HIV & AIDS are incurred under a National Targeted Programme for 2011-15, run by the Ministry of Health, and form only 14.5% of total AIDS spending in Vietnam. According to the last available spending assessment, 43% of these public

funds came from the federal government while 57% came from state governments. At 44%, programme management and administration form the largest component of public spending with prevention a close second at 35%, and treatment and care a distant third at 13% of the spending (National Committee for AIDS, 2012). It seems that these public funds are spent on supplying commodities and services through the general health infrastructure for minors and students living with HIV and for treatment of opportunistic infections which are typically not covered by donor systems. Household spending on HIV & AIDS in Vietnam, focused on treatment and care, makes up 11.8% of total spending and is primarily spent on purchasing commodities and services directly from providers and pharmacies. The rest, 74% of total spending, is channeled through bilateral and multilateral donor arrangements to purchase HIV prevention and treatment (National Committee for AIDS, 2012) mainly as projects at stand-alone out-patient clinics (OPCs). As usual, PEPFAR, at 50% of total HIV & AIDS spending, purchases services locally through implementing partners from service delivery sites and providers. Global Fund, however, transfers funds directly to programs in the Ministry of Health, which is a principal recipient. But, at only 4.7% of total spending, GF aid is small and, in any case, public HIV & AIDS purchasing itself is not integrated well with general health purchasing. Hence, overall, Vietnam has low HIV & AIDS purchasing integration.

Medium Integration:

Purchasing of HIV & AIDS-related services and commodities in Philippines, Ghana, South Africa, and Rwanda displays medium integration with existing health service delivery and commodities procurement systems. Except for the integration of the

collection function in Ghana (low), South Africa (high), and Rwanda (low), all other HIV & AIDS financing functions in these countries also demonstrate medium integration.

Purchasing for HIV & AIDS in the Philippines at the domestic level is mostly integrated as both the Department of Health (DOH), which funds supply side delivery of ARVs, and PhilHealth, which provides SHI coverage for 82% of the population and covers HIV & AIDS through the "Outpatient HIV/AIDS Treatment Package" (OHAT) initiative, purchase services from the same "treatment hubs". These hubs are hospitals with established HIV & AIDS core teams (HACTs) providing prevention, treatment, and support services. Publicly-funded ARVs are only available in these facilities (PNAC, 2012). PhilHealth directs its members to these treatment hubs to avail of the OHAT and then pays through a case-based payment scheme with maximum annual reimbursement capped at 30,000 pesos. The treatment facility is paid in quarterly installments as long as there was some treatment during this time. However, international donors, accounting for 48% of the total spending, purchase outside the DOH system (PNAC, 2012). External money, such as Global Fund support which is channeled through the DOH, funds NGOs (primarily the AIDS Society of the Philippines and the Positive Action Foundation) which then provide their own prevention and treatment programs. Hence, public spending on commodities and high SHI coverage in the Philippines, coupled with salient parallel donor-funded mechanisms for procurement and provision, have led to medium integration in HIV & AIDS purchasing.

Similarly in Ghana, HIV & AIDS purchasing is at least as integrated as the pooling function, and possibly more. The Global Fund, the largest HIV donor in Ghana and source of 85% of the National AIDS Control

Program budget, was recently evaluated for its level of integration with Ghana's general health system. With the Ministry of Health the primary recipient of Global Fund grants and the Ghana Health Service the primary implementer, Global Fund activities were found to pay for services, commodities, and training mostly through the existing health service delivery and commodities procurement systems. There is also a high degree of integration in the purchasing of health worker labor through the government's wage bill. While a good deal of integration exists now between HIV and non-HIV purchasing in Ghana, the glaring exception is the purchasing done within the National Health Insurance Scheme, which excludes HIV & AIDS-related medicines and services. As NHIS expenditures (which are mostly comprised of reimbursement of claims and new capitation-based payments to providers) account for increasing shares of health spending in Ghana, moving to a high level of integration of HIV purchasing would imply adding HIV benefits to the NHIS benefit package and array of payment mechanisms.

Integration for the purchasing function is ranked as medium in South Africa as well. Collection in South Africa is highly integrated as it raises 75% of its HIV & AIDS funding from domestic public revenues. These funds are transferred to the provincial and local levels as earmarked financing for HIV & AIDS in the form of "equitable shares" and "conditional grants", respectively, which results in a lower pooling integration rank of medium. Most purchasing takes place at the provincial level, which funds specialist hospital services and ambulance needs, and oversees all province-wide and district-level health infrastructure and services. The local governments only provide specified primary care services for which funding for purchasing is made

available by the provinces. Earmarked funding for HIV & AIDS, thus, can be utilized through these channels in an integrated manner. Similarly, HIV & AIDS services can also be purchased on behalf of the 16% of the population covered by medical schemes in an integrated manner as the prescribed minimum benefits for these schemes cover HIV & AIDS hospitalization and treatment, including ARVs, according to the national guidelines prevalent in the public healthcare sector. However, 16% of the HIV & AIDS funding is sourced from external donors with PEPFAR and Global Fund being the largest bilateral and multilateral donors, respectively—providing almost 60% of total foreign funding. The governments of Netherlands and the United Kingdom together provide an additional 20%. As earmarked funding for HIV & AIDS, these funds are only partially integrated in the public purchasing mechanisms for commodities and services. For instance, while the National Department of Health and the National Treasury receive direct support as two of the Global Fund's principal recipients, civil society agents and implementing partners like National Religious Association for Social Development, Right to Care, and Networking AIDS Community of South Africa also receive funding. Similarly, PEPFAR, which started out in South Africa by directly purchasing treatment services and clinical care from providers, has increasingly shifted to technical assistance and health system strengthening as domestic resources have increased. Increasingly, PEPFAR assistance is being brought on-budget as earmarked support for delivery of services through the public infrastructure. However, PEPFAR's parallel procurement and service delivery channels remain salient. Hence, HIV & AIDS-related purchasing in South Africa is increasingly but still only partially integrated with the same function in the public health sector.

Finally, in Rwanda, universal health coverage has been achieved through a network of community-based health insurance schemes called Mutuelles (MS), although domestic public resources only make up 9.6% of HIV & AIDS-related financing and 90.2% of the resource pool is derived from foreign donors like PEPFAR (42.7% of total) and the Global Fund (40.6% of total) according to the latest available estimate from 2009-10 (UNAIDS, 2012). The MS is offered through a decentralized, multi-tier public health system of over 500 local health centers and dispensaries, 48 district hospitals, and 4 national referral hospitals. It provides a Minimum Package of Activities (PMA) at local health centers and a Complementary Package of Activities (PCA), covering prevention, family planning, and curative services for those referred, at district hospitals (Lu et al., 2012). While the PMA does cover HIV & AIDS prevention and treatment services, ART is generally considered to not be available. In any case, only 30% of health centers are able to provide the comprehensive list of activities according to an estimate of the Ministry of Health (MOH, 2009). Consequently, while government funding is channeled through PMA and PCA at public facilities, donor funding for HIV & AIDS is only partially integrated with this mechanism for pooling and purchasing (Doetinchem et al., 2010). The Global Fund has begun to route earmarked funding through government channels under the recently-launched 2013-18 partnership, with greater flexibility on spending and joint monitoring and evaluation. However, although PEPFAR is beginning to put some funds 'on-budget' in Rwanda for commodities, warehousing, and clinical services, it still primarily channels its support directly to service delivery sites and providers through implementing partners. Hence, there is considerable but still only partial integration in HIV & AIDS-related purchasing in Rwanda.

High Integration:

Finally, HIV & AIDS-related purchasing in Thailand, Mexico, Colombia, Brazil, and Chile is highly integrated into the general health purchasing and procurement mechanisms. All five of these countries have high levels of per capita income and health insurance coverage, and apart from Thailand (Asia; 1.1%), the rest are all Latin American countries with low-level HIV & AIDS epidemics.

In Thailand, as explained before, extensive insurance coverage and comprehensive benefits through the country's Universal Coverage Scheme as well as smaller social security and civil service benefits programs have resulted in high integration of the collection and pooling functions for HIV & AIDS-related financing. These programs comprise 85% of HIV & AIDS financing and cover 94% of the individuals on ART. They primarily fund HIV & AIDS care and treatment services for Thai citizens though, and purchase commodities and services from hospitals and health centers run by the Ministry of Public Health (Hanvoravongchai, Warakamin, & Coker, 2010). The Global Fund provides 70% of the international financing in Thailand, which is not integrated into the general health system as the Global Fund has distinct payment and accounting protocols (Hanvoravongchai et al., 2010). This financing is channeled through implementing partners from the civil society and used largely for HIV-prevention activities and for treatment and care for mainly non-Thai key affected populations since government facilities do not cover non-Thai citizens. Hence, overall, HIV & AIDS-related purchasing is highly integrated with the general health system in Thailand.

Mexico, Colombia, Brazil, and Chile also have highly integrated HIV & AIDS purchasing. In Mexico, coverage for the 266 benefits offered under Seguro Popular, the social insurance program covering the half of the population employed informally, is only available at public facilities (Bonilla-Chacín & Aguilera, 2013). Generally, purchasing and provision take place at the state level as state governments are responsible for the administration of program resources. However, comprehensive care for HIV & AIDS under SP is funded through the FPGC, the catastrophic care fund, which covers 49 catastrophic events and is pooled at the national level as a trust, comprising 8% of all annual resources, managed by the National Commission for Social Protection of Health. The annual budgetary allocation to FPGC has grown twelve-fold over 2004-2011 as the number of enrollees grew, with provision taking place through direct federal reimbursements to federally-certified healthcare facilities, which are primarily located in the private sector (Knaul et al., 2012). However, interviews for this study with respondents indicate that such separate reimbursements mechanisms to pay private providers treating patients for HIV & AIDS do not currently exist, and the National Commission is purchasing HIV & AIDS services from both public sector facilities and a network of 56 integrated, publicly-funded HIV & AIDS outpatient clinics called CAPASITS²⁴ (Saavedra, 2010). For 97% of the other half of the population employed in the formal sector, however, health coverage and HIV & AIDS services are provided (only) by providers affiliated with their respective social security institutions (IMSS and ISSSTE). Mexico, therefore, has achieved high ART coverage under highly integrated HIV & AIDS collection, pooling, and purchasing mechanisms.

²⁴ The first of these outpatient clinics was launched in 2000. By 2010 more than 35,000 people with HIV were receiving care in the CAPASITS.

In Colombia, 96% of the public is enrolled with the General System for Social Security for Health (SGSSS). SGSSS creates “quality-centered competition among service providers and insurers”²⁵ by enabling individuals enrolled in its contributory and subsidized regimes to pick their insurer as well as an affiliated provider. Hence, there is one market for insurance plans and another market for health services under the SGSSS. Since HIV & AIDS is covered as a catastrophic condition under both the SGSSS regimes and provision is primarily private, purchasing is highly integrated with the general healthcare system. In Chile, however, as mentioned earlier, 80% of the public is covered by FONASA, the public insurer, while another 18% is covered by seven private insurers called ISAPRES. Both these insurance systems cover HIV & AIDS under an explicit package of 80 benefits. While non-indigent FONASA beneficiaries have the option of availing private provision of healthcare for a higher copayment, most FONASA beneficiaries receive care through the public system administered by 27 decentralized Regional Health Services under the National Health Services System. Importantly, primary health care is also offered through 1870 municipal health centers also funded mainly by the federal government. FONASA’s payment mechanism for care through this system comprises capitation for primary health care and historic budgets for public hospitals combined with fee-for-service and prospective payment per case²⁶. Beneficiaries of ISAPRES, on the other hand, mostly avail healthcare services from private sector providers who are paid under fee-for-service arrangements. Hence, HIV & AIDS, as a regular benefit under the public system, is well-integrated into the general purchasing and provision systems.

Finally, HIV & AIDS care in Brazil has been prioritized under the PHC-centered Family Health Program of the Unified Health System. Under this decentralized system, state and municipal governments take charge of practically implementing national health policies, including the National STD/AIDS Programme, through Brazil’s public health infrastructure (“Case Study 3: National STD/AIDS Programme, Federal Ministry of Health,” 2011). Funding trickles down to the local level under this system such that these activities at the level of state and municipal governments are financed through the regular mechanisms of the Unified Health System. These mechanisms include direct earmarked transfers between national, state, and municipal health funds which represent nearly all of the financing for primary, medium, and tertiary health services, incentives policies funds to finance actions or commodities targeting key affected groups (like people living with HIV & AIDS), and administrative and transfer agreements between federal public organizations and local public entities or NGOs to fund specific activities like provision of services. These mechanisms cover full HIV & AIDS service coverage, including free-of-charge ARVs, under a comprehensive package of benefits for 75% of the population enrolled in the public system. The 25% of the population on private insurance can access highly standardized insurance plans regulated by the National Health Agency and offered by private companies, cooperatives, and medical organizations. These entities buy services for beneficiaries from private providers under fee-for-service arrangements. Hence, purchasing of HIV & AIDS services and commodities under Brazil’s national public insurance system is also highly integrated with the general health payment apparatus.

²⁶ Chile Ministry of Health

²⁵ Joint Learning Network for Universal Health Coverage—Colombia

5. Conclusions and Recommendations

Integration of HIV & AIDS financing with that of general health financing systems has been identified as a potential means of improving efficiency and financial sustainability of HIV & AIDS programs, while also enhancing access, equity, and quality of general health coverage for the population. This landscaping exercise uses a well-known health financing framework to disaggregate the complex issue of integration and explore variation in country experiences. It forms a first step toward more in-depth country-level analysis and policymaking.

The country landscaping identified some general patterns in existing levels of integration in HIV and health financing. First, there is indeed substantial variation in the extent of such integration across countries and within countries over the three financing functions. It is therefore useful to disaggregate the idea of integration across these functions (and also across different components of the HIV & AIDS response) before making policy decisions about whether, where, and how integration should happen. Doing so may help identify feasible integration opportunities in certain functions even where others are more difficult—or in between the rarer occurrence of large, path-changing health financing reforms that affect all functions at once. For example, Rwanda shows that integration in the collection function may be unlikely in the medium term because of a country's low-income and inability to raise adequate domestic resources, but it is still possible to integrate pooling and purchasing to some extent, all while advancing UHC goals.

5.1 High levels of integration

In the countries reviewed here, integration appears to be more likely or easier to accomplish as country income rises and as

HIV burden decreases. The five countries with higher levels of per capita income and low or concentrated HIV epidemics all had high levels of integration across the collection, pooling, and purchasing functions. All five are also relatively advanced in terms of UHC-oriented population coverage goals. The high integration exists even though these countries differ in the institutional arrangements employed to offer HIV and other health benefits. For instance, while Brazil has integrated the cost of HIV & AIDS treatment into its (non-insurance-based) universal public health system, Colombia has focused on including HIV & AIDS within a nationally-regulated benefits package offered primarily by private sector health insurers. Mexico has found a middle ground by covering informal and independent workers through public funding under Seguro Popular, parallel to formal sector workers' coverage under the social security institutions. In sum, high levels of HIV financing integration can be achieved under a wide range of institutional approaches to UHC, but may be more difficult in low-income countries and countries with large HIV burdens.

5.2 Medium levels of integration

Five countries here represent a middle-ground of some integration for certain functions, but much less so than the countries described above. This group, and similar countries outside of the sample here, may be the most likely candidates for increased integration in the near term. This is already starting in South Africa, where the government and PEPFAR have been engaged in a thorough financial mapping and planning process to prepare for a transition away from PEPFAR funding, and next steps may include analysis of HIV-related

funding requirements for a future national health insurance system and the operational requirements for a future National Health Insurance Fund to pool funds and organize purchasing of HIV & AIDS services.

There is interesting variation in the pooling function among the six countries in the sample for this study with low levels of collection integration—with three of the countries also having low pooling integration, and the other three exhibiting medium levels. This creates a possibility for policy-relevant comparisons—for example, does a country such as Kenya with more HIV/non-HIV pooling appear to benefit somehow (or have its HIV programs harmed in any way) from the pooling compared to one with less, such as Zimbabwe?

The observed combination of low integration in collection with medium integration in pooling also points to a potential point of entry for promoting integration: even if low-income countries cannot integrate collection of HIV funding in the near term, they may be able to gain efficiencies, better spread health and financial risks, or lay groundwork for more sustainable (and domestically-driven) financing of their health systems by pooling some of their HIV funding with other health funds. Donors and countries with reasonably well-functioning national health financing pools/purchasers, such as Ghana's National Health Insurance Fund/Authority, should be the first to explore whether at least some HIV funds could begin to be integrated into such pools. Rwanda, Kenya, and the Philippines could also be promising cases for increased integration in pooling of HIV and non-HIV financing in the short term.

Enhancing pooling integration requires a country to develop the capacity for robust monitoring and evaluation with credible verification of results by funders.

Such integration should therefore serve to harmonize external funding with local systems and priorities and condition continued support on improvements in outcomes. Such "on-budget" support has already begun to be pioneered in Rwanda and Kenya where some earmarked external funds (Global Fund in Rwanda) are being channeled through government bodies which had previously served to only coordinate donor funding.

5.3 Low levels of integration

Countries in this sample where HIV financing is not integrated with overall health financing tend to be poorer, lack widespread health insurance coverage, and suffer from generalized HIV epidemics (except Vietnam). Donor-driven, vertically-funded programs in these countries source, pool, and pay out financing mostly independently of the wider health financing infrastructure, with governments largely performing coordination and planning functions.

The link between countries' income and their level of integration in the collection of funding is one of the clearest and most intuitive relationships in this landscaping, mostly due to LICs' higher reliance on external (and often earmarked) funding for HIV. LICs' collection function may therefore be the least fertile ground to promote integration, but countries and donors should at least consider whether increased bundling of HIV and non-HIV assistance—through SWAPs, budget support, or similar donor funding modalities—could save some resources in the short term and help lay the groundwork for a smoother transition away from external funding in the longer-term future. This is probably most feasible in LICs with at least some integration in the pooling and purchasing functions, such as Kenya and Rwanda.

5.4 Note on purchasing

There are special considerations for HIV integration in the purchasing function. Purchasing systems, which include specific payment mechanisms for particular goods and services (e.g., tariffs, salaries, fee-for-service, capitation, etc.), should be formulated to achieve certain health system goals, such as containing costs, reducing inequity, or improving access and quality. Integrating HIV and non-HIV purchasing systems has the potential to save administration costs of running parallel financial system and to create economies of scale that reduce costs of paying for all health services, including HIV/AIDS. However, given the unique characteristics and needs of HIV & AIDS—some of which are highlighted in Section 3—integration of payment mechanisms (i.e., using the same payment mechanisms, such as salary or capitation, to pay providers to deliver HIV and other health goods and services) must be considered cautiously. In some cases, it may well be that a separate, HIV-tailored payment arrangement (perhaps within a central purchasing entity's operations) is best to ensure adequate utilization, overcome stigma, or achieve cost efficiencies for life-saving medicines. Monitoring and evaluation frameworks made need to be modified to accommodate HIV adequate quality for services covered by existing health purchasing arrangements and newly integrated HIV-targeted ones.

5.5 Further research and next steps

This review of experiences across 13 countries provides a foundation for further analysis and policy guidance. More evidence is especially needed on the impacts of particular forms of integration. In particular, there is a lack of evidence on the impact integration has on efficiency, quality, and access for HIV and

non-HIV health services. It is also important to investigate how financing integration affects delivery arrangements, which was beyond the scope of this study. Further analysis is also needed to substantiate and mitigate the HIV-specific concerns flagged in section 3. Are countries with socialized or otherwise highly integrated HIV & AIDS financing in this study able to better sustain chronic treatment horizons, support public good components of HIV programs, generate and utilize data to adequately estimate HIV coverage costs, and ensure non-discriminatory delivery to marginalized or general populations? Connecting these concerns to the level and means of financing integration will help inform whether closely aligning HIV financing efforts with UHC efforts will serve HIV & AIDS responses, the needs of other health conditions, and the access and financial risk protection goals of UHC well.

Country case studies will be vital for systematically investigating these and other questions and producing context-relevant policy recommendations. As an immediate next step, this landscaping study can help identify priority countries for such case studies on the basis of factors such as HIV burden, domestic financing capacity, ongoing or future policy reforms for full population health coverage, and donor transition plans. These case studies can generate evidence for policy guidance on the integration issue by:

- Mapping HIV and non-HIV financing in detail across the three financing functions;
- Cross-referencing this financial mapping with types of HIV & AIDS goods and services;
- Costing and modelling the financial effects of integration to craft nuanced financial scenarios, identifying the best

opportunities for—and also risks of—integration along the lines of questions flagged above; and

- Conducting stakeholder analyses and suggesting ways of facilitating dialogue among stakeholders to inform any integration plans.

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HIV FINANCING INTEGRATION IN SOUTH AFRICA: POLICY SCENARIOS AND FEASIBILITY ANALYSIS

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Foreword

At the June United Nations General Assembly High-Level Meeting on Ending AIDS, Member States committed to implementing a bold agenda to end the AIDS epidemic by 2030 through the adoption of a progressive, new and actionable Political Declaration. Together with the UNAIDS Strategy 2016-2021, these important documents bring hope for the 37 million people living with HIV around the world, two-thirds of whom still lack access to treatment. Only by rapidly scaling up their HIV programmes will countries reach this target. Large increases in investment are imperative, particularly in the near term, which is why many high-

burden countries have embraced UNAIDS' "Fast-Track" 90-90-90 HIV treatment targets for 2020.

South Africa has been a pioneer in these efforts, expanding access to HIV services over the last 15 years. Slowly but surely, the country is overcoming the world's largest HIV burden. Development partners have played an important role in the epidemic response. However with donor support plateauing and expected to decline, the success of South Africa's HIV programme will rest on its ability to mobilize and manage a sustainable flow of domestic resources.

Ending the AIDS epidemic is one of the targets of the Sustainable Development Goals, which also codify countries' aspirations to achieve universal health coverage (UHC). At long last more countries are investing seriously in the realization of health as a human right, by enhancing their health infrastructure, training new cadres of health workers, and creating more equitable systems to protect all citizens from the risks of poor health.

Here, too, South Africa is a leader. The government has laid out a bold vision for a new National Health Insurance (NHI) scheme, which will guarantee access to a wide range of essential services, including those for HIV prevention, care, and treatment. This reform is a massive undertaking, requiring new thinking about how to finance and deliver health services for a large and diverse citizenry.

Ensuring the compatibility of South Africa's HIV and UHC objectives is of paramount concern.

In this study, UNAIDS takes the first steps toward exploring whether integrating financing for HIV services into the broader

NHI system is advisable and, if so, how it might be done. It offers four alternatives to the status quo and reviews their respective virtues and shortcomings. It also charts a detailed path forward for the government to further evaluate its options and, eventually, to implement one.

UNAIDS is fortunate to partner with Dr David de Ferranti, President of Results for Development Institute, whose team has broadened the HIV community's understanding of integration's promise and potential pitfalls.

We offer this analysis to South Africa as it deliberates over NHI financing policy design and the role therein of the health programme. We also hope our work and the discourse it stimulates will offer useful lessons for other countries, who often look to South Africa's large and highly successful HIV response for inspiration.

Jose Antonio Izazola Licea

Division Chief, Evaluation and Economics
UNAIDS

Preface

I recall the last International AIDS Conference in South Africa, a dramatic and memorable event that took place in Durban in 2000 at a troubled moment in the history of the country's HIV response. At that time the virus was spreading rapidly, prevention measures were inadequate, and HIV treatment was virtually non-existent. South Africa's first National Strategic Plan for HIV/AIDS called for merely 400 million rand (about 60 million US dollars in 1999/2000) to fight the epidemic.

What a remarkable change has occurred over the past decade and a half—Mr. Mandela

would be proud. With strong political leadership, South Africa has mounted a formidable response to HIV. The country and its development partners, including PEPFAR and the Global Fund, are annually investing more than 20 billion rand (2 billion US dollars in 2014/15) in the battle against the virus. More than 3 million South Africans are now on treatment, and every day new patients access services paid in full by the government. Rates of infection may be falling, but far too many people are still being infected. At the same time, the government has published its White Paper on National Health Insurance and is



starting to put in place the building blocks of a universal system.

In this dramatically changed context, this study can play an important role in tying together two daunting challenges: the long-term financial sustainability of South Africa's HIV response, and the development of the NHI system.

Drafted in close consultation with key country stakeholders, the report lays out a series of options for the integration of HIV funding and other health financing over the next three to five years. It describes these scenarios in detail, including how they would reconfigure funding flows and distribute important responsibilities—target-setting, budget planning, and performance monitoring for HIV and other services—across the national, provincial, and local spheres. It then assesses the pros and cons of each option, offering insights into their political, legal, and technical feasibility, as well as estimating their impact on the HIV response, other primary health care services, and health system efficiency. Along the way the study flags key risks and knowledge gaps for each option and highlights which integrative approaches are most compatible with the NHI White Paper.

This effort is closely linked to Results for Development Institute (R4D)'s other health policy work in South Africa and elsewhere. For nearly a decade, and against the backdrop of the drive toward Universal Health Coverage, R4D has helped countries and their partners better estimate resource needs and track expenditure for HIV and other health programs; plan, manage, and evaluate the phase-out of donor support and transition to national self-reliance; assess options for integrating “vertical” and “horizontal” health funding streams; and design, implement, and strengthen national health insurance systems.

It is an honour for R4D to have been invited to conduct this study in consultation with the National Treasury, Department of Health, and other talented individuals and institutions in South Africa.

We hope that our work will make a meaningful contribution to the debate on HIV financing in South Africa, and to the search for the most efficient, equitable, and sustainable health financing solutions for the country and its 54 million people.

Robert Hecht

Results for Development Institute

Acknowledgments

This UNAIDS study was undertaken in consultation with the Department of Health and the National Treasury, and conducted by Results for Development Institute (R4D).

UNAIDS would like to thank the R4D team led by Robert Hecht, Nathan Blanchet and Michael Chaitkin, and including Teresa Guthrie, Neetu Hariharan, Adeel Ishtiaq, and Aparna Kamath.

UNAIDS gratefully acknowledges all of the colleagues and partners who helped this project to succeed. We thank the numerous government officials in South Africa who patiently assisted the study team to understand the country's health financing system and the potential consequences of altering it. UNAIDS is particularly indebted to Mark Blecher, Jeanette Hunter, Anban Pillay, Yogan Pillay, and Edgar Sishi, as well as their respective teams in the National Treasury and

National Department of Health, for providing critical guidance, insights, and data.

UNAIDS would also like to acknowledge those who steered the study team in fruitful directions at various stages of the study. They include Bernd Appelt, Paolo Belli, Barry Childs, Stephen Hendricks, Stephanie Heung, Joe Kutzin, Naomi Lince-Deroche, Gesine Meyer-Rath, Lungi Nyathi, Mead Over, Tomas Roubal, Kerry Pelzman, Theresa Ryckman, Kate Schnippel, Derek Sedlacek, Shivani Ranchod, Rob Stanley, and Anna Vassal.

The study would not have been possible without the leadership provided by the UNAIDS South Africa Country Director, Erasmus Morah, who facilitated linkage to key contacts both within and outside South Africa, closely supported by Eva Kiwango, who enabled this work in-country. Special thanks go to Jose-Antonio Izazola and Nertila Tavanxhi for their advice, and to the UNAIDS/World Bank HIV Economics Reference Group for helping to shape the study and providing the funding for it.

Abbreviations

ART	Antiretroviral therapy
CG	Conditional grant
CMS	Council for Medical Schemes
DHMO	District Health Management Office
DOH	Department of Health
DORA	Division of Revenue Act
DRG	Diagnosis-related group
FY	Financial year
Global Fund	Global Fund to Fight AIDS, Tuberculosis, and Malaria
HAST	HIV & AIDS, STI, and TB
HIV CG	Comprehensive HIV and AIDS conditional grant
HMIS	Health management information system
MMC	Medical male circumcision
MTEF	Medium Term Expenditure Framework
NDOH	National Department of Health
NHI	National Health Insurance
NHIF or NHI Fund	National Health Insurance Fund
NT	National Treasury
PEPFAR	United States President’s Emergency Plan for AIDS Relief
PMTCT	Preventing mother-to-child transmission
PDOHs	Provincial Departments of Health



PTs	Provincial Treasuries
R	South African Rand
SANAC	South African National AIDS Council
SBCC	Social and behaviour change campaign
TB	Tuberculosis
UHC	Universal health coverage
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization

Executive Summary

Background and motivation

South Africa's government has committed itself to achieving universal health coverage for its population. A proposed national health insurance (NHI) system would consolidate resources in a centrally managed Fund that purchases services from both government-run and private health care providers. In preparation, the government is already reengineering primary health care to ensure all public clinics are adequately staffed, equipped, and managed to efficiently deliver high-quality services.

At the same time, South Africa has embraced ambitious goals for its burdensome HIV epidemic. In accordance with UNAIDS's 90-90-90 framework, by 2020 in South Africa:

- 90 percent of people living with HIV will know their status,
- 90 percent of those diagnosed with HIV infection will receive antiretroviral therapy, and
- 90 percent of those receiving treatment will have viral suppression.

Today more than 3.4 million South Africans living with HIV receive life-sustaining therapy, reflecting the country's (and its development partners') rapid scale-up of investment in treatment and other interventions. Unless a cure emerges, they and 3.5 million additional people living with HIV will need treatment for the rest of their lives. Meeting their health needs, and thereby achieving the 90-90-90 targets, will require even greater investment in HIV services, which already consume more than a tenth of the government's health budget.

Currently the financing and delivery of health services is largely in the purview of the provincial sphere of government; each province is free to distribute its share of national revenue, determined by an equitable share formula, between sectors and specific activities therein. In complement, through conditional grants from national line ministries to their provincial counterparts, the national sphere ring-fences funding for priority government investments, including the national HIV response. For more than a decade the Comprehensive HIV and AIDS conditional grant has provided the vast majority of government financing for HIV activities. This could all change under an NHI

system, raising important questions about the future of South Africa's health financing and service delivery systems.

This feasibility study seeks to help the South African government to answer one such question: **over the next three to five years, as the government continues preparing the design and implementation of a new NHI system, how might HIV and other health services be financed in a more integrated fashion?** Toward that end, the study characterizes in detail the government's current health financing system, describes the status quo and four additional scenarios for reconfiguring HIV financing, and evaluates these options for their feasibility and potential impact on the health system.

It serves as a discussion document for government officials and other health sector stakeholders and, consequently, does not explicitly endorse or recommend any of the scenarios. Instead, the study strives simply to highlight the opportunities and risks posed by each option and the similarities and trade-offs between them.

Methodology

This study required a combination of desk research and stakeholder and expert consultation. In addition to reviewing publicly available literature, we consulted with officials from the National Treasury and National Department of Health to gain access to documents and data pertaining to health sector policy and expenditure. In parallel, we interviewed numerous government officials at the national and provincial levels, as well as consulted with South African and international experts on HIV financing and health system reform. These processes enabled us to unpack the incumbent health financing system and develop four alternative HIV financing scenarios.

Five HIV financing scenarios

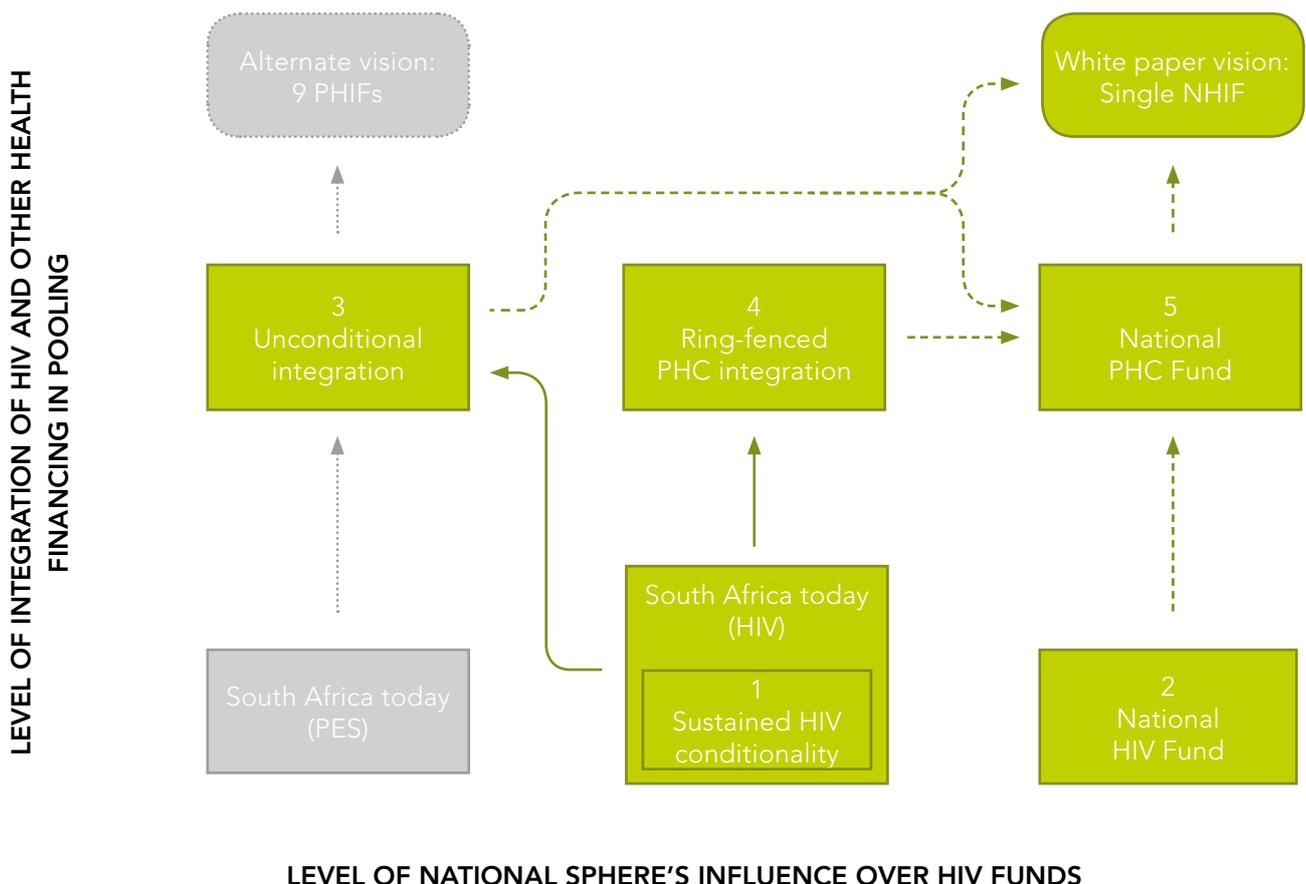
The study features five scenarios indicative of the government's options in the next three to five years:

1. **Sustained HIV conditionality** (status quo) would maintain the ring-fencing of HIV funds in a large conditional grant and the financing of most other health services through the equitable share.
2. A **National HIV Fund** would pool the majority of financing currently flowing to provinces through the HIV grant. The Fund would purchase a package of personal HIV services, while a small grant would continue to finance non-personal HIV services.
3. **Unconditional integration** would eliminate the HIV grant and fold all HIV funding into the equitable share, whose allocation formula would be modified to account for HIV burden.
4. **Ring-fenced PHC integration** would create a large conditional grant covering all primary health care services, including for HIV. Funds could be shifted from the equitable share to the grant, or new resources could be added to the grant over time by the national sphere.
5. A **National PHC Fund** would pool financing currently flowing through the HIV grant with additional resources for other primary health care services. Additional funds could be shifted from the equitable share to the Fund, or new resources could be added to the Fund over time. The Fund would purchase all personal primary health care services, while provinces would remain responsible for non-personal services.

As Figure ES.1 depicts, these scenarios vary along two key dimensions. First, they differ in terms of how integrated financing for HIV and other health services would be (vertical axis). Given the study's time horizon of three to five years, we did not consider scenarios that would fully integrate all health financing. Instead, our options range from further isolating HIV financing (i.e., decreasing the extent of integration) to pooling together all funds for primary health care services, including those for HIV.

Second, if the government were to revisit the configuration of HIV financing, it would be important to understand to what degree the national sphere would continue to exercise influence over the use of funds intended for HIV activities (horizontal axis). Accountability at the national level may be crucial to further scaling up the HIV response. Therefore, some of our scenarios for HIV financing would strengthen the national sphere's authority over HIV funds, while some would retain or even dilute the current level of influence.

F.ES1 SNAPSHOT OF FIVE SCENARIOS FOR HIV FINANCING REFORM.



Source: Authors.

Notes: Solid lines indicate movement from the current HIV financing approach (Scenario 1) to the other four scenarios presented in this study. Dashed lines (Green) depict potential pathways from those scenarios to the NHI system proposed in the White paper (2015). Dotted lines (grey), in contrast, show the potential pathway from the current system to a more devolved NHI scheme in which each province manages its own insurance fund.

Abbreviations: NHIF = National Health Insurance Fund, PES = provincial equitable share, PHC = primary health care, PHIFs = Provincial Health Insurance Funds.

The five scenarios are not intended as potential end points of health financing reform. Some of them could be sequenced in a series of incremental changes toward the eventual creation of an NHI Fund, or features of multiple scenarios could be combined into a single alternative. The solid and dashed arrows in Figure ES.1 indicate several possible pathways from the status quo through one or more of this study's scenarios, ultimately arriving at a single NHI Fund as proposed in the 2015 NHI White Paper. The dotted arrows plot a course toward a more devolved NHI system with nine provincial Funds.

Comparing the scenarios

Integration or other reconfigurations of HIV financing would entail considerable alterations to the size, nature, and governance of public-sector pools of health funds. Figure ES.2 presents illustrative allocations of the health sector budget for financial year 2016/17, with a new NHI Fund appearing in Scenarios 2 and 5. Notably, only a minority of funds would be implicated by the financing arrangements addressed in this study. Across all five scenarios, funds for all non-primary health care activities would continue to flow through the provincial equitable share, but the government could also explore changes to the pooling of hospital funds, for instance.

In addition to altering how health funds are pooled, the scenarios would also affect how HIV and others funds are governed. Only Scenario 3 would shift predominance over how HIV funds are spent to the provincial sphere, where Departments of Health and Treasuries would exercise full control over resource allocation across sectors and within the health sector. The other scenarios differ in terms of whether the national sphere would continue to ring-fence HIV (and other) funds before transferring them to provinces (Scenarios 1 and 4), or if a new nationally managed Fund would hold money centrally and dispense it directly to providers (Scenarios 2 and 5).

The reallocation of funds and revised governance of HIV spending would help to determine the scenarios' impact and feasibility. Based on additional desk research and informant interviews, and drawing on our own reasoning and experience, we evaluated each option for its likely effect on South Africa's HIV response, on primary health care services more generally, and on health system efficiency, as well as for its feasibility along legal, political, and technical dimensions. Our assessments are qualitative and merely indicative of the direction and relative magnitude of effect; quantifying any scenario's impact would require a more resource-intensive modelling effort. Nonetheless, our evaluative scorecard (Table ES.1) can serve as useful input to government deliberations.

There are several key takeaways from the evaluation of the scenarios' likely impact:

- If 'do no harm' is a guiding principle for HIV financing reform, unconditional integration (Scenario 3) stands out for the widespread view that it could severely undermine the HIV programme.
- There is some appeal in using the HIV programme to pilot an NHI system (Scenario 2), but given how integrated certain aspects of financing and service delivery already are, such an approach could do more harm than good.
- There is little basis for expecting pooling reforms alone to improve the HIV response or to increase health system efficiency. More strategic approaches to purchasing, which would be possible under any scenario, are a more promising way to promote efficiency through financing.
- Primary health care could benefit most from more integrated financing, particularly with considerable national influence (Scenarios 4 and 5), if management and service delivery were

imbued with similar business planning, resource tracking, and evaluation to what exists for HIV.

- Integrating primary health care financing under national influence or control (Scenarios 4 and 5) may offer the best balance between the government’s twin objectives of moving toward universal health coverage and achieving 90-90-90 coverage targets for HIV; however, of the scenarios analysed in this study, the status quo (Scenario 1) would pose the fewest risks to the HIV response.

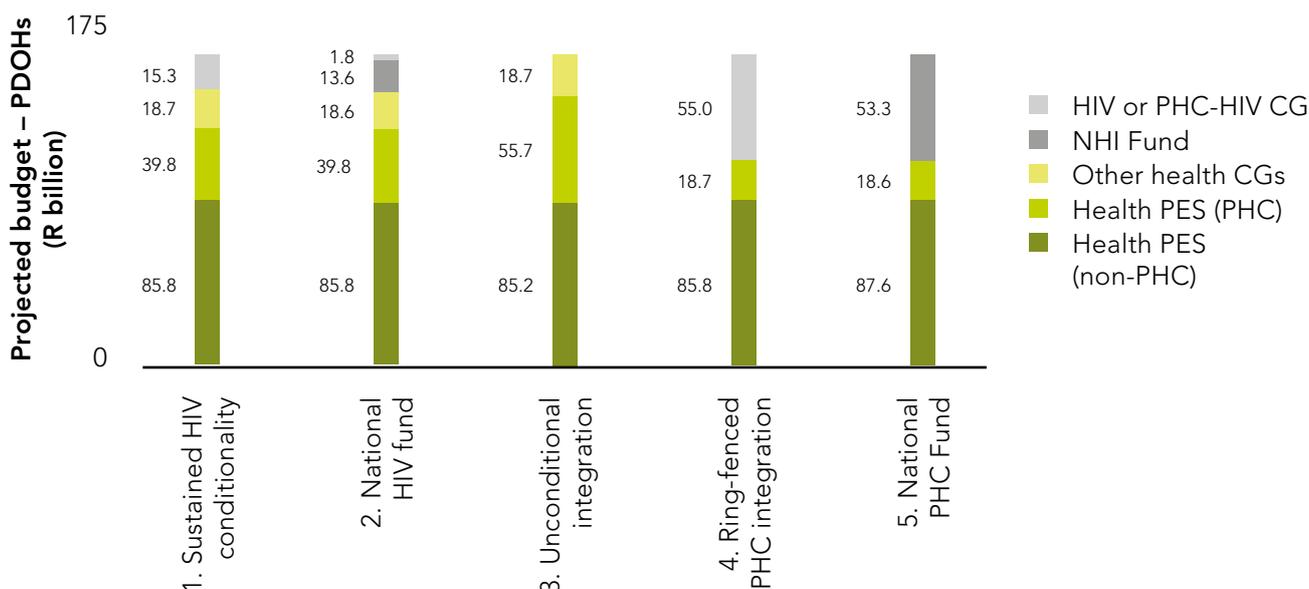
Assessing feasibility also yields important conclusions:

- Only the status quo (Scenario 1) would be highly feasible in legal, political, and technical terms.
- Creating a new Fund (Scenarios 2 and 5) would be technically challenging and

could invite legal or even constitutional challenges from provinces.

- Ring-fencing or nationalizing an integrated pool of primary health care funds (Scenarios 4 and 5) would require better tools and data for planning and monitoring primary health care services; such investments would benefit a future NHI system.
- Smooth implementation of a scenario, particularly if it is a clear interim step toward the proposed NHI system, could help to galvanize support for more ambitious reforms; conversely, mismanagement could undermine the broader NHI agenda.
- Ease of implementation may not be sufficient reason to pursue an option (e.g., Scenario 3), nor should anticipated challenges alone preclude a particular course (e.g., Scenarios 4 and 5).

F.ES2 ILLUSTRATIVE ALLOCATIONS FOR SCENARIOS 1–5 FOR FY 2016/17 (R BILLION)



Sources: National Treasury (2015b, 2016).

Abbreviations: CGs = conditional grants, PES = provincial equitable share, PDOHs = Provincial Departments of Health, PHC = primary health care.

T.E.S.1 SUMMARY SCORECARD OF IMPACT AND FEASIBILITY, SCENARIOS 1–5.

SCENARIO	IMPACT			FEASIBILITY		
	HIV RESPONSE	PHC SERVICES	HEALTH SYSTEM EFFICIENCY	LEGAL	POLITICAL	TECHNICAL
1. Sustained HIV conditionality	Reference scenario			High	High	High
2. National HIV Fund	?/ -	Ø	?/ -	Low–medium	Low–medium	Low–medium
3. Unconditional integration	-- -	?/ +	Ø/ -	High	Low	High
4. Ring-fenced PHC integration	Ø	++	?/ +	Medium–high	Medium–high	Medium
5. National PHC Fund	?/ -	+	?	Low–medium	Medium	Low

Source: Authors' assessment.

Key: + = favourable, Ø = minimal, - = unfavourable, ? = uncertain. Dual ratings (e.g., ?/ -) indicate a primary estimate and possible but less certain alternative. Number of symbols indicates relative magnitude of effect (e.g., ++ is more favourable than + and less favourable than +++).

Looking ahead

This study provides useful input to government debate and decision making about the future of HIV financing and how its integration relates to the broader NHI agenda. In addition to assessing the feasibility and desirability of various integration scenarios, the study raises numerous considerations that require additional analysis and debate, and align well with the NHI work streams. These include:

- How to best integrate financing and delivery of primary health care and monitor performance;
- How to implement a purchaser-provider split and design payment mechanisms for HIV and other primary health care services;

- How to mobilize sufficient political support for integration and other challenging NHI reforms;
- How to concurrently address other important health financing issues, including the anticipated decrease in donor funding and the management of funding for hospital services; and
- How to manage the immediate integration of tuberculosis into the HIV grant.

In this formative time for South Africa's health system, the government's HIV response will factor critically into any major reforms. Integration could position HIV as the 'tip of the spear' of NHI design.



Section 1: Introduction

South Africa has the world's largest HIV burden, with an estimated 6.8 million people living with the virus (UNAIDS, 2014b). The country has rapidly scaled up HIV treatment and care over the last decade—the government's HIV response guarantees free access to antiretroviral therapy (ART), and by the end of 2015 it was treating more than 3 million people living with HIV. If South Africa is to meet its ambitious HIV 90-90-90 targets by 2020,¹ 5.7 million patients will need to be on ART by financial year (FY) 2018/19. This will require accelerating the expansion of treatment coverage and adding between 670,000 and 900,000 new patients to the ART programme annually until 2019 (Department of Health, South Africa & South African National AIDS Council, 2016). Continued rapid scale-up raises concerns about the financial sustainability of the country's HIV response, compounded by the expectation that donor funding from the United States President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to Fight AIDS, Malaria, and Tuberculosis (Global Fund), will scale down in next five to 10 years. Over the last decade, there has been a sharp increase in public financing for HIV, which is now approaching almost a third of government spending on primary health care (PHC) and about 10 percent of all government health expenditure (National Treasury, 2014).

Meanwhile, South Africa has embarked on an ambitious plan to develop national health insurance (NHI) that will provide universal and equitable access to health care, including HIV services, for the whole population. Planners in the National Department of

Health (NDOH) and National Treasury (NT) may need to consider alternative models for organizing the HIV programme that address the sustainability concerns for its financing, respond to disparities between its governance and that of the wider public health financing system, and integrate or at least coordinate it with the country's larger vision for NHI. This study responds to this need by presenting and evaluating various scenarios for changes to the management of funding for the government's HIV response over the next three to five years. Any proposed changes must be carefully scrutinized to ensure, first and foremost, that they do not undermine current efforts.

The public sector dominates South Africa's HIV response: about three-quarters of all HIV financing in South Africa is raised from domestic revenue sources, the bulk of which is then managed through direct transfer from the national government to Provincial Departments of Health (PDOHs) using the Comprehensive HIV and AIDS conditional grant (HIV CG). This grant—determined for each province on the basis of HIV prevalence and need—is a means of ring-fencing financing for the government's HIV response via PDOHs under conditions of careful business planning; tight budgeting, spending, and tracking of funds; and detailed reporting of outputs against programmatic targets. In contrast, government spending on most other health care services is primarily discretionary at the provincial level. The bulk of provincial health budgets is sourced from national revenue transferred to provinces under South Africa's provincial equitable share (PES) allocation system. PES transfers

¹ The 90-90-90 targets are that 90 percent of people living with HIV will know their HIV status, 90 percent of people diagnosed with HIV will receive sustained antiretroviral treatment, and 90 percent of those on treatment will have durable viral suppression (UNAIDS, 2014a).

to provinces by NT account for approximately 81 percent of public health financing. Provinces have autonomous control over the budgeting and service delivery functions for all health programmes funded through this mechanism. PES spending is guided by provinces' Annual Performance Plans and monitored through annual financial reporting to the national government, but these processes are minimal compared to those in place for the conditional grants.

The HIV and non-HIV health budgets have also been following contrasting trajectories. The annual HIV conditional grant has grown dramatically from R1 billion since its introduction in FY 2003/04 to R13.7 billion over a decade later in FY2015/16, and it will reach R20 billion by FY 2018/19 (Guthrie, Ryckman, Soe-Lin, & Hecht, 2015; Janari, 2015). Given this government commitment under the 2016 Medium Term Expenditure Framework (MTEF), the grant will continue to grow by over 10 percent annually in nominal terms—double the rate of growth in the overall health budget (National Treasury, 2014). Government health expenditure, on the other hand, has declined as a share of the overall government budget in recent years. With donor funding for HIV expected to recede over the next ten years, the government will likely have to channel an even greater share of funds to sustain and expand its large HIV programme, particularly to increase the number of people on ART.

Given the rapid growth in South Africa's HIV budget both in absolute terms and as a share of government health spending, the differences between HIV and other health care financing raises important and immediate questions for policymakers. The government must consider if it can sustain the growth rate in the HIV CG, particularly as donor funding recedes. Similarly, while separate planning, tracking, and performance monitoring systems for the HIV

response have helped to strengthen it, it is important to weigh the benefits of continued ring-fencing against any inefficiency it creates in the government's health financing and service delivery systems.

These questions regarding integrated management of HIV and non-HIV health financing are both pressing and timely: the government of South Africa has proposed the establishment of an NHI system by 2025 in pursuit of universal health coverage (UHC). The recently published White Paper (National Department of Health, 2015d; hereafter White Paper, 2015) envisages an NHI Fund that acts as "a single-payer and single-purchaser" with centralized purchasing of health care services, including those for HIV, local management of delivery through District Health Management Offices (DHMOs), and mechanisms for direct payments to providers. Hence, the government and other stakeholders are interested in considering how public financing for HIV may be more fully integrated with that for other health services ahead of broader NHI implementation, as well as how financing integration might affect delivery of HIV and other services. These concerns relate closely to ongoing debates about how to enhance South Africa's public financial management system, how to design an NHI benefits package, and how to modify intergovernmental functional and fiscal arrangements in preparation for a purchaser-provider split.

This study explores the nature of these problems by describing and evaluating five distinct scenarios for the pooling and management of public funds for HIV. In particular, our analysis is crafted to help policymakers grapple with the following questions:

- Should the current structure of public HIV financing be altered in the next three to five years?

- If so, what are some policy options or scenarios for HIV financing, and particularly its integration with financing for other health services, that could be explored over this period?
- How would the scenarios affect the HIV response and other primary health care services?
- Would the scenarios increase health system efficiency?
- How feasible are the scenarios?
- How would the scenarios facilitate or impede the realization of the government's NHI vision?

To address these questions, we undertook extensive desk research utilizing published literature, data, and policy documents related to South Africa's health financing system, HIV response, and NHI proposals. Officials from NT and NDOH provided supplementary documents and data. To build on and complement the desk research, we consulted government officials, experts, and other stakeholders to collect suggestions for how HIV financing could be restructured. Consultations included individual interviews, group discussions, and presentations during which the potential strengths and weaknesses of different financing changes were discussed. Appendix 1 contains a full list of government participants, while other experts and stakeholders are acknowledged above. The majority of consultations were with representatives of three divisions in NDOH (HIV/AIDS, TB and Maternal and Child Health; Primary Health Care; and Regulation and Compliance) and two in NT (Public Finance and Intergovernmental Relations).

Due to the preliminary and sensitive nature of this work, we do not directly attribute opinions expressed by individuals during

the consultations. However, at times we include informants' institutional affiliations to lend additional context to their views. We conducted most of our consultations in Pretoria in October 2015, and some conversations took place by phone in the preceding and subsequent months. We presented our preliminary analysis to selected government officials in January and February 2016; their feedback is reflected throughout the study.

Although we consulted widely with senior national officials in both NT and NDOH, numerous other stakeholders are not well represented in our analysis. They include provincial officials, patients, private health care providers, and civil society organizations. As we note later, more extensive consultation and political analysis should inform the government's policy design and implementation decisions. Additionally, we did not quantitatively model the impact of the five scenarios. We focused instead on the governance implications of reconfiguring HIV financing and qualitatively assessing whether the scenarios would have a favourable or unfavourable impact on the health system.

To set the stage for that analysis, we first provide an overview of the current situation in South Africa (Section 2). We begin with a brief description of the country's health financing system and government expenditure on HIV.

We then explain in greater detail what we mean by HIV financing integration and the extent to which there is already such integration in South Africa. Underlying this analysis is a recognition that as they pursue a range of important policy goals, decision makers must take care not to harm South Africa's largely successful HIV programme. For this reason, the current financing arrangement remains a compelling option, while the other four scenarios represent potential opportunities to build upon gains

made in the HIV programme and, in some cases, extend them to other parts of the government-financed health system.

With the status quo in mind, we present five possible scenarios for reorganizing HIV financing and detail our methods for

developing and evaluating them (Section 3). We then offer a comparative analysis of the scenarios and highlight key takeaways for policymakers (Section 4). Finally, we reflect on how this study can be used to facilitate decision making and shape additional analysis and policy design (Section 5).

Section 2: Health financing and HIV integration in South Africa

To characterize South Africa's current health financing system, we conducted desk research relying on publicly available data and documents about the health system's structure and flow of funds. We organized our search and analysis around the three principal health financing functions of revenue collection, pooling, and purchasing (Kutzin, 2001). We then assessed the extent of integration of HIV

with non-HIV health funds to determine a status quo scenario to which proposed alternatives could be compared. This analysis builds on a recently developed framework for evaluating integration across the three financing functions (see Box 2.1), though our emphasis here is more on the specific mechanisms by which HIV and other health funds are mobilized, managed, and deployed to purchase services.

BOX 2.1. WHAT IS HEALTH FINANCING INTEGRATION?

This study is part of a growing body of work that responds to mounting interest, in South Africa and globally, in the desirability, feasibility, and mechanics of integrating 'vertically' financed health programmes, such as those for HIV, with broader, 'horizontal' health systems. In particular, it builds on a recent Results for Development Institute (R4D) report for the UNAIDS- World Bank Economic Reference Group's Technical Working Group on Sustainable Financing. R4D defines HIV financing integration as "the process of moving toward national health financing systems where funds for HIV & AIDS are collected, pooled, and used to pay for health services together with funds for other health services rather than through separate financing and payment structures."

The report goes on to assess the level of integration—high, medium, or low—across the three health financing functions of revenue collection, pooling of funds and risk, and purchasing of services. For collection, the level of integration depends on what share of HIV funds are drawn from the same revenue sources as other health funds. The extent of pooling integration, in turn, depends on whether HIV funds are pooled and managed together with or separately from other health funds.

Finally, the degree of purchasing integration reflects whether the flow of HIV and other health funds from purchasers to providers relies on the same channels and mechanisms. Critically, to date there is insufficient

evidence about whether integration is inherently good or bad for a national health system. For now, it remains a useful concept to help describe certain aspects of a country's health financing system. Nonetheless, policymakers and other stakeholders profess a number of hypotheses about the potential benefits of integration, including efficiency and service quality.

Analysis of 13 countries, including South Africa, revealed considerable variation in the level of HIV financing integration between countries and within countries across financing functions. Additionally, integration in one function does not necessarily require or enable integrating other functions. In fact, integrative policies can be quite targeted at one or more functions depending on the country context, available sources of funds, and policymakers' health system goals. Finally, the report highlighted the need for country-specific research and consultation to better understand integration and inform relevant policies.

Source: Blanchet et al. (2014)

We focus exclusively on public financing for HIV services channelled through the national and provincial health departments, which accounts for roughly three-quarters of all HIV spending in South Africa. The government also finances HIV programmes through the Departments of Basic Education, Correctional Services, Defence, and Social Development, as well as the South African Police Force, but collectively these account for only 6 percent of public HIV spending (Guthrie et al., 2015). Additionally, although external funds from PEPFAR and the Global Fund are important to the country's HIV response, they represent a decreasing share of financing and are likely to recede in the next decade. Consequently, the future sustainability and impact of HIV spending will depend principally on how the government manages and spends its own resources. At the same time, South Africa and its partners will need to manage the donor transition carefully. In Section 5 we note a number of important questions related to the plateauing

and expected decline in donor funding for HIV, which go beyond the scope of this study.

In the rest of this section we quantify government spending on HIV and describe how public HIV funds are collected, pooled, and used to purchase services in relation to the rest of the publicly financed health system. We also highlight the need for careful thinking about integrated service delivery and incorporation of tuberculosis (TB) financing into the HIV CG.

DOH expenditure on HIV

South Africa's National and Provincial Departments of Health spent more than R14 billion on HIV in FY 2015/16 (National Treasury, 2016) and will spend R20–30 billion in FY 2018/19.² After more than a decade of expansion, the HIV programme now accounts for more than 10 percent of all government

² R20 billion has already been allocated to the Comprehensive HIV, AIDS and TB conditional grant for FY 2018/19 (Janari, 2015), but how much additional money will be spent by PDOHs out of equitable share funds is uncertain. The upper bound of R30 billion assumes a similar ratio of PES-to-CG spending as is reported in Guthrie et al. (2015) for FYs 2011/12–2013/14. Due to the difficulty of identifying HIV-related spending within South Africa's Basic Accounting System, these estimates may overstate the amount of non-conditional grant spending on HIV. Guthrie et al. (2015) estimates that the grant accounts for 76 percent of the DOH's HIV spending. Our own estimate, extracted from National Treasury (2015b), suggests the grant accounts for upwards of 90 percent of all DOH spending on HIV at the provincial level. In reality the overall share is probably between the two.

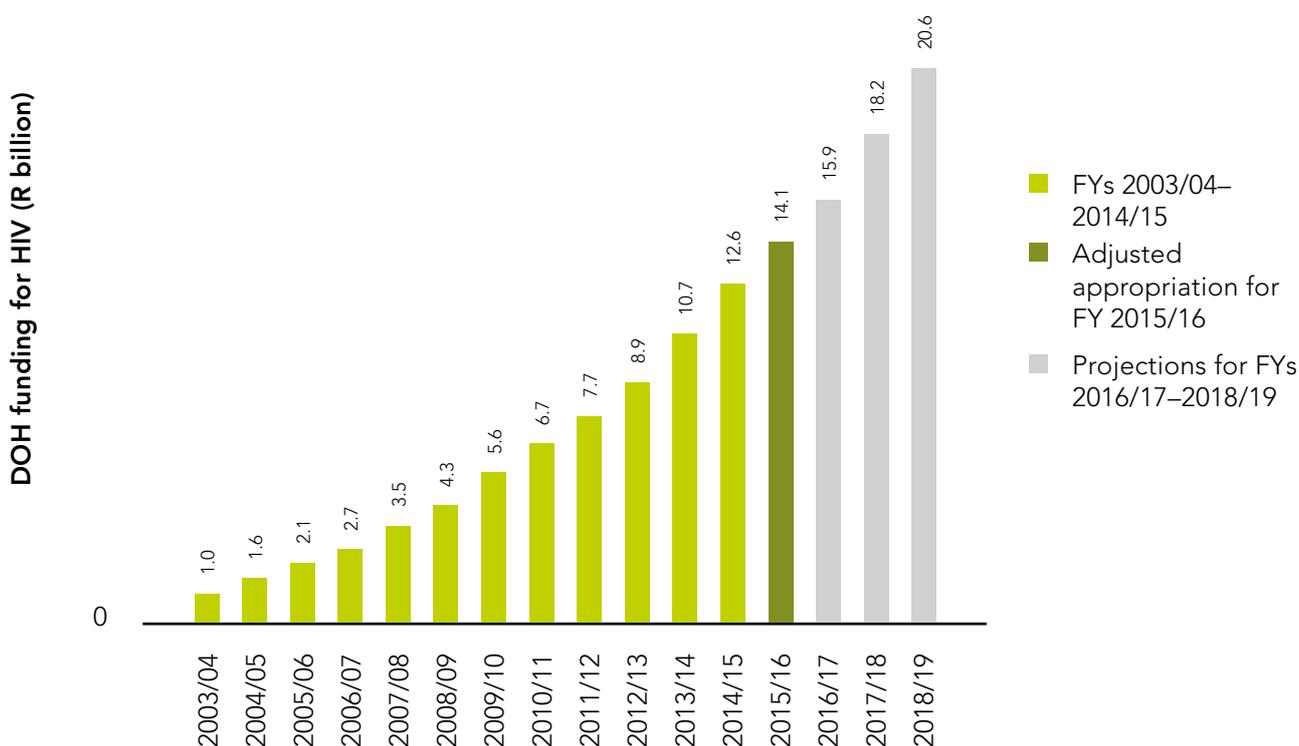
health sector expenditure and is growing faster than the overall budget for health (National Treasury, 2014). Figure 2.1 depicts the growth in HIV funding from FY 2003/04 to FY 2018/19.

South Africa's lacklustre economic performance complicates efforts to sustain this growth in domestic HIV spending. Depressed global commodity prices and persistent drought have contributed to sluggish economic growth, which is forecasted to be only 0.9 percent in 2016

(Gordhan, 2016). Slow growth will constrain fiscal space for all government investments, underscoring the continual need for finding more efficient means of financing and delivering HIV and other health services (Blecher et al., 2016). Addressing this structural challenge is beyond our scope, but fiscal space constraints should be borne in mind when evaluating the current HIV financing structure and any alternatives, such as the scenarios we describe in Section 3.

F.2.1 HISTORICAL AND PROJECTED DOH HIV FUNDING (NOMINAL R BILLION), FY 2003/04–2018/19.

24



Source: Update to Figure 4 in Ndlovu & Meyer-Rath (2014) using National Treasury (2016).

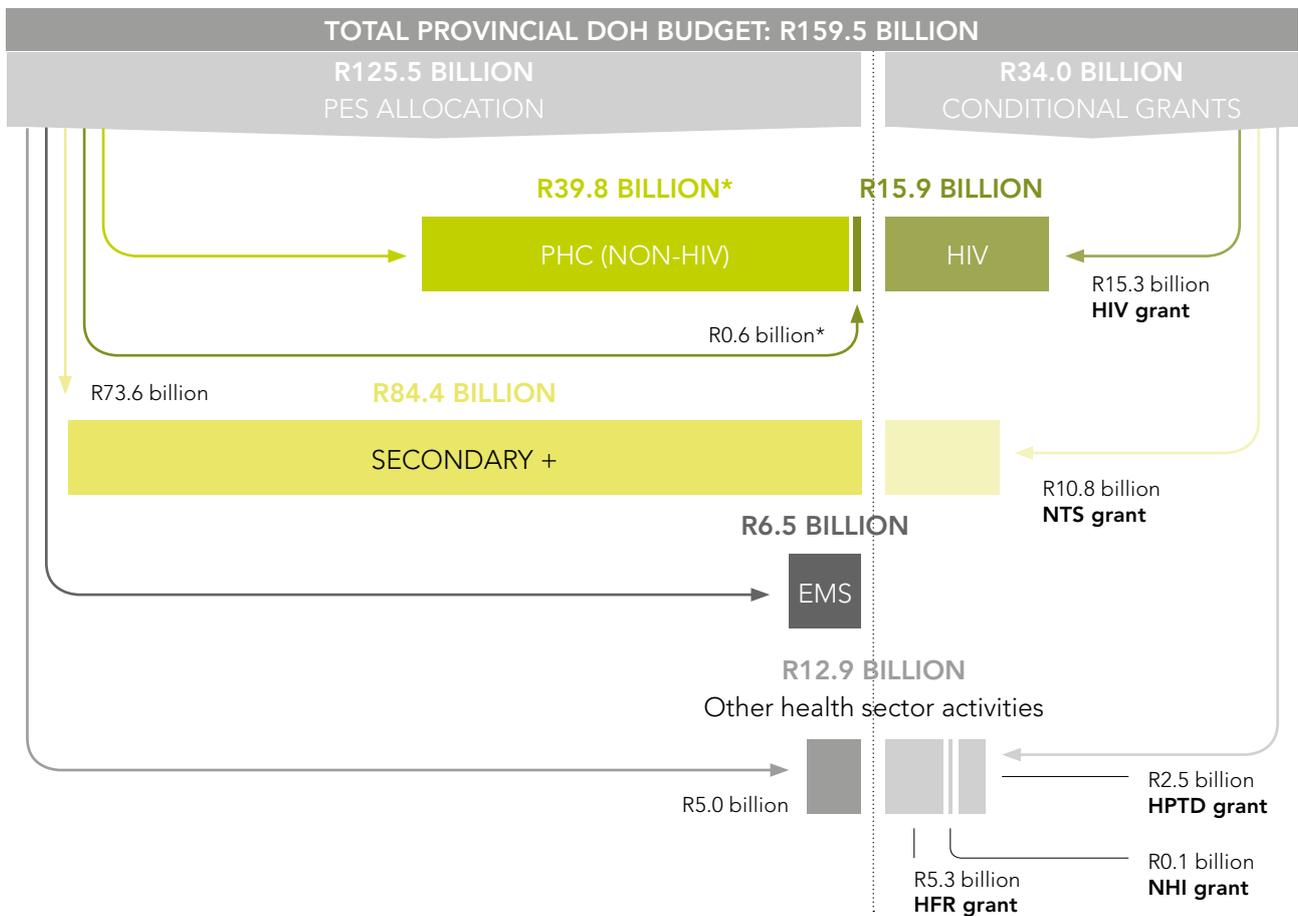
Notes: Data reflect audited outcomes for FYs 2003/04–2014/15 (light green), adjusted appropriation for FY 2015/16 (dark green), and projections for FYs 2016/17–2018/19 (grey). Figures include funds for HIV-TB integration and other TB interventions channelled through the Comprehensive HIV and AIDS grant until FY 2015/16 and then through the Comprehensive HIV, AIDS and TB grant from FY 2016/17 on.

Abbreviations: DOH = Department of Health, R = South African Rand.



F.2.2

EXPECTED ALLOCATION OF PROVINCIAL DOH BUDGETS IN FY 2016/17.



Sources: Authors' analysis using National Treasury (2015b, 2016).

* Estimates vary on the total budgets for HIV and other PHC activities. The amounts depicted here are based on the sources noted above, while the total HIV budget may be closer to R20 billion.

Notes: Other health sector activities include administration, training and professional development, facilities revitalization, research, and preparation for NHI implementation.

Abbreviations: DOH = Department of Health, PES = provincial equitable share, PHC = primary health care, Secondary + = secondary, tertiary, and quaternary services, NTS = National Tertiary Services, EMS = Emergency Medical Services, HFR = Health Facilities Revitalisation, HPTD = Health Professional Training and Development.

Collecting HIV funds

The collection of public funds for HIV services is straightforward and identical to revenue mobilization for all government-financed health services. General tax revenue collected at the national level funds the overwhelming majority of government health spending. The national tax base principally comprises individual taxes

(35 percent), the value-added tax (26 percent), and the company tax (21 percent), as well as includes small shares from a fuel levy, customs duties, and excise taxes (National Treasury, 2015c). Provinces also directly collect modest revenue that funds 1.5 percent of South Africa's total health expenditure (Blecher et al., 2011). Virtually all government health spending, including on HIV services, relies on this general

revenue. Therefore, public HIV financing is highly integrated in collection with financing for other health services.

This public HIV financing accounts for about three-quarters of all HIV spending in South Africa. Similarly, integrated financing is collected by Medical Aid schemes and other private insurers, but only 8 percent of HIV spending occurs in the private sector. More substantial are donor-funded HIV programmes, which collect funds exclusively for HIV (or occasionally for HIV and TB together). These external sources of HIV funds—the largest of which are PEPFAR and the Global Fund—account for 16 percent of HIV spending and are not integrated with other health funds (South African National AIDS Council, 2013).

The plateauing and foreseen decline in donor financing compounds South Africa's already daunting challenge to raise sufficient revenue to finance the growing HIV programme and roll out a new NHI system. However, broad questions about fiscal space go beyond the scope of this study. To date there have been no proposals from the government or others to introduce HIV-specific revenue streams into the government's financing system, and none is considered among our scenarios.

Pooling and managing HIV funds

After collecting general revenue, NT distributes funds between the spheres of government and across national departments in accordance with the national budget process. Although they serve as the financing agent for all government health services, PDOHs receive funds for general health services and for HIV differently (Figure 2.2). Most health funds flow to provinces

through the PES allocation system, which applies a legislatively defined formula to divide a large portion of national revenue among South Africa's nine provinces. PES (or voted) funds are intended for education, health, and other social-sector programmes that are concurrent responsibilities of the national and provincial spheres of government ("Constitution of the Republic of South Africa," 1996). Provinces exercise near-complete discretion over the use of PES funds, which is tracked annually at the national level against provincial budgets and Annual Performance Plan targets. NT also reviews provincial budgets through a benchmarking exercise to ensure provinces will meet contractual obligations, such as those to public employees and suppliers.

In contrast, the bulk of the PDOHs' HIV financing is channelled to provinces via the HIV CG, which will include more than R15 billion in FY 2016/17 and more than R20 billion in FY 2018/19 (Janari, 2015). Conditional grants are typically created to enable a national department to support, with dedicated funds, the rapid implementation and scale-up of priority initiatives. Currently, the HIV CG is the second largest across all sectors and accounts for 43 percent of all conditional grant funding to DOH (National Treasury, 2014).³

For each conditional grant the transferring (national) department, in consultation with NT, develops a legally binding mechanism that governs the grant's administration and the responsibilities of both the transferring and receiving (provincial) departments. For the HIV CG, these include specific services and priority activities to be funded by the grant, requirements that provincial business plans specify their measurable output and

³ In fact, DOH is the greatest beneficiary of direct CG financing, receiving 37 percent of all funds channelled in this manner. Other health CGs include those for Health facility revitalization, Health professions training and development, National tertiary services, and National health insurance.

outcome indicators, and a schedule for quarterly reports by PDOHs to NDOH (National Department of Health, 2015a).⁴ Box 2.2 provides examples of conditions and output measures for the HIV CG in FY 2015/16.

The binding nature of the conditional grant mechanism, NDOH’s ability to withhold payments from provinces failing to comply, and the elaborate business planning and monitoring systems required to implement

the grant all distinguish the CG from the PES health financing mechanism. In fact, these conditions allow HIV funds to be effectively ring-fenced from the rest of provincial health budgets without actually pooling them in separate accounts or even separate financing agents. Therefore, the current level of integration in pooling HIV and non-HIV health funds is quite low, so scenarios for HIV financing integration will naturally feature reconfigurations of financing pools.

BOX 2.2. CONDITIONS AND OUTPUT MEASURES FOR THE COMPREHENSIVE HIV AND AIDS CONDITIONAL GRANT (FY 2015/16).

The HIV CG mechanism, a legally binding agreement between the national and provincial spheres of government, requires funds to be spent on specific activities with measurable outputs. They can be summarized as follows:

PRIORITY ACTIVITIES TO BE SUPPORTED BY THE GRANT

- ART-related interventions
- Home- and community-based care
- Condom distribution
- Interventions for high-transmission areas
- Post-exposure prophylaxis
- Prevention of mother-to-child transmission
- Programme management strengthening
- HIV counseling and testing services
- Medical male circumcision
- TB screening and prevention for HIV patients

OUTPUTS FOR GRANT-FUNDED ACTIVITIES

- Number of new patients initiated on ART
- Number of ART patients remaining in care
- Number of male condoms distributed
- Number of female condoms distributed
- Number of exposed infants tested at 6 weeks with polymerase chain reaction test
- Number of clients tested for HIV (including antenatal)
- Number of medical circumcisions performed

Source: National Treasury (2015a).

⁴ In Scenario 1 below, we assume that the same or similar conditions as those currently governing the HIV CG will remain in place in the next three to five years.

Purchasing HIV services

There is currently no purchaser-provider split in South Africa's publicly financed health care system, though NDOH and PDOHs do mimic some aspects of the purchaser-provider relationship through the business planning and accountability mechanisms in place for the HIV CG. Nonetheless, individual clinics neither receive nor manage their own budgets. Provinces make global budget allocations to hospitals, which in some cases include funds for clinics in the hospitals' service areas. Elsewhere, district health offices manage clinic budgets. Either way, some health care inputs are paid for directly by PDOHs, including health care worker salaries and some drugs and laboratory services. Due to the conditional grant reporting requirements, provinces must tag their HIV spending as such and specify the programme or intervention, as well as the line items on which funds are spent. However, some of their HIV inputs are shared with other service areas, including labour (nurses, community health workers), facility maintenance, overheads, some supplies, and more. These tend not to be labeled as HIV related in CG reporting and therefore are subsidized with PES funds.

Most of these inputs are purchased in an integrated fashion. Health care workers, for example, receive their salary in the same way regardless of whether their position is officially designated as HIV related (let alone whether they are actually delivering HIV care). Moreover, provinces purchase HIV and other drugs often through nationally coordinated tenders and transfer them to facilities. Despite the ring-fencing of HIV funds in pooling, there is actually little to distinguish purchasing of HIV services from that of other types of care, except for the additional monitoring and reporting that is required under the CG rules. Some provinces are also explicitly

attempting to more fully integrate service delivery, further blurring the line between HIV and non-HIV financing at the facility level. Even in a few cases where a province contracts private providers to deliver HIV services, it demands that they provide a wide range of other (typically PHC) services as well.

Because purchasing is fairly integrated between HIV and other health services, particularly PHC, most of our scenarios for HIV financing integration do not include specific changes to the purchasing arrangements. This is not to say that such reforms should not be considered in South Africa. In fact, transitioning to strategic purchasing arrangements may be one of the most promising ways to incentivize greater efficiency and quality in health care. As a purely illustrative example, a future NHI Fund might decide to pay for a basket of PHC services through capitated payments, but retain a separate pay-for-performance or fee-for-service payment mechanism for certain key HIV services. For this reason we highlight in Section 3 the types of purchasing arrangements that could be explored under each scenario, though we also note that the government could experiment with many new approaches without significantly altering its pooling structure. As most of these possibilities do not relate to a change in how integrated purchasing would be, a more thorough exploration of them goes beyond the scope of this study.

Delivering HIV services

South Africans can typically seek HIV and other services while visiting a single government facility, which may promote increased access to services and could generate economies of scale if coverage expands to patients who previously have not sought care for lack of availability or convenience. In fact,

integrating HIV services into the general health system has led to considerable increases in utilization of inpatient and outpatient care in Rwanda (Piot et al., 2015a). Integrating service delivery can also generate economies of scope if HIV and other service areas share the fixed factors of production, including clinic space, equipment, financial and information management systems, and health workers (Sweeney et al., 2012; Topp et al., 2013). Facility-level integration may also strengthen programmes and generate wider health benefits (Piot et al., 2015b).

However, the extent to which HIV and other services are delivered in an integrated fashion has not been well documented in South Africa. A general measure of Integrated Clinical Services Management indicates considerable variation. On this component of the Ideal Clinic Programme, which includes not only service provision but also several other aspects of performance, districts score between 43 percent and 75 percent, with provincial averages ranging from 52 percent (Mpumalanga) to 63 percent (KwaZulu-Natal) (Steinhobel, Massyn, & Peer, 2015). When asked about HIV services integration, informants also described variation. In some settings facilities dedicate space and workers exclusively to HIV service delivery (perhaps including a handful of related services, such as TB screening). In others, facilities incorporate HIV patients into a single flow for all health services, which are delivered by generalist clinicians.

Optimizing the facility-level choreography of service delivery will depend on local conditions, including a clinic's staffing model, the disease burden of the local population, the volume of patients seeking HIV services relative to others, and more. Facilities with high volumes of HIV patients, for instance, may be able to more efficiently serve them in a separate ward with dedicated clinicians. In contrast, low-volume facilities might struggle to efficiently deliver

unintegrated services. There are numerous empirical questions about whether integrating service delivery is desirable in terms of efficiency, quality, and morale. In fact, we encountered anecdotal evidence that paper-based information systems in South African clinics may render integrated service delivery less efficient and unpleasant for both health care workers and patients.

Additionally, even if there are efficiency grounds for integration, there may be compelling reasons to retain unintegrated services in certain settings. For example, key populations' utilization of services can be deterred by the prospect of stigmatization by providers or other patients (Druce et al., 2006). In South Africa as elsewhere, more research is required to understand the optimal approaches to service delivery integration in different settings and for different patient populations (Piot et al., 2015b). Desirable service delivery modalities could then be linked to purchasing mechanisms and other policies meant to shape provider behaviour.

HIV integration summary

In this section we have illustrated how pooling is the financing function with the greatest scope for integration of HIV and other health funds. Both collection and purchasing are integrated already, and though the latter is ripe for other forms of policy change, the evaluation of those possibilities (e.g., alternative payment mechanisms for different types of services) does not fit into the parameters of this study. Nor does more detailed analysis of the interplay between integrated financing and integrated service delivery.

In the following section we turn to the heart of our analysis: a detailed description of the five scenarios for HIV financing options that have been developed in close consultation

with key stakeholders in South Africa. In light of the analysis above, the scenarios focus mainly on how the government could reconfigure the pooling arrangements for HIV and other funds.

A note on TB financing and the HIV conditional grant

Before proceeding to the scenarios, it is important to note the recently announced modifications to the HIV CG and the trend toward integrated financing for some HIV and TB activities. TB imposes a large and growing burden on South Africa, especially on people living with HIV, who account for around 60 percent of the country's TB patients (World Health Organization, 2014). Provinces use PES funds to pay for the vast majority of government-provided TB care and treatment services. However, in recognition that addressing TB is an essential part of a robust HIV response, for several years South Africa has financed some HIV-TB integration and TB control, management, and surveillance activities⁵ through the HIV CG (Guthrie et al., 2015).

Moreover, the grant will now be used to scale-up financing for other TB services. The government has already committed R740 million in the current MTEF period for active TB case finding among high-risk and vulnerable populations, chemoprophylaxis for high-risk individuals (including people living with HIV), and widespread deployment of improved diagnostics (Xpert MTB/RIF). In fact, to accommodate this increased funding, and in anticipation of future expansion in the grant's TB components, starting in FY 2016/17 it is called the Comprehensive HIV, AIDS and TB conditional grant (Janari, 2015; National Department of Health, 2015c).

Greater incorporation of TB financing into the grant complicates considerations about how HIV financing might be reconfigured in the next several years. Important questions arise, including whether rearrangements in HIV financing should also be applied to TB funds and how such changes might catalyse or undermine ongoing efforts to strengthen South Africa's TB response. These issues go beyond the scope of this study, but in Section 5 we argue that they must be examined carefully before implementing any integration scenario.

Section 3: HIV financing scenarios for the next three to five years

Developing the scenarios

While developing the scenarios, we selected two key parameters to define the realm of possible financing arrangements to consider. First, we elected to focus on options that can plausibly be implemented in the next five years (if not sooner). This stems from the interest of some government officials to redesign the HIV financing mechanisms in concert

with decision making about longer-term NHI system design. Below we do discuss how each scenario might fit into NHI implementation, but we emphasize the more immediate implications of the financing options.

Second, we chose not to vary the total resource envelop for HIV or health across the scenarios. Others have worked extensively to determine the resource needs for achieving South Africa's

ambitious national coverage targets, including the recent UNAIDS-supported Investment Case for HIV and TB (Department of Health, South Africa & South African National AIDS Council, 2016). This study's short time frame and focus on integration precluded any meaningful advancement on this body of work. Instead, we offer complementary analysis that highlights how, given a particular spending level, altering the organization of health financing, particularly in the pooling function, might affect health system performance.

Descriptions

From our consultations we distilled and synthesized informants' ideas into the five scenarios presented later in this section. To each we applied a descriptive template with six components meant to capture key features that vary across the scenarios and relate to policymakers' key questions. Table 3.1 summarizes the descriptive framework.

Evaluations

The consultations also revealed policymakers' main interests and concerns for evaluating the scenarios. Six criteria emerged, the first three of which relate to the scenarios' potential **impact** on health system performance.

Potential effect on the HIV response

Policymakers are keen to understand whether the alternative financing mechanisms would enhance or undermine the country's HIV response. We identify the risks and potential gains each scenario might entail for the HIV programme.

Potential effect on PHC services

It is useful to highlight potential synergies or trade-offs between HIV and other services, particularly PHC, under each scenario. For instance, if a scenario jeopardized certain aspects of the HIV programme, could policymakers at least expect improvements in PHC service quality?

Potential effect on health system efficiency

A major impetus for considering changes to HIV financing in South Africa is the potential for efficiency gains. The practical constraints on this study preclude a rigorous, quantitative modelling exercise to precisely estimate efficiency gains and losses, but we do attempt to qualitatively assess the likely direction of each scenario's effect.

For the impact criteria we use a qualitative rubric to indicate a scenario's likely effect. We argue that a scenario will have a favourable (+, ++, +++), unfavourable (-, --, ---), or minimal (Ø) effect on HIV, PHC, and health system efficiency. We use multiple symbols to convey differences in magnitude (e.g., ++ means more favourable than +) or borderline cases (e.g., Ø/+ indicates the effect is likely to be minimal or potentially favourable). In some cases we cannot estimate the effect because it depends too much on additional policy choices that go beyond the scenario (?).

The second trio of evaluation criteria addresses three aspects of scenarios' feasibility: legal, political, and technical.⁶

⁶ Feasibility is a broad concept encapsulating many considerations. Policymakers and analysts might consider numerous feasibility dimensions depending on the nature of proposed scenarios, the local context, government's implementation capacity, and more. Beyond those addressed here, an important additional dimension is fiscal feasibility, which captures whether the costs associated with a scenario are reasonable given available resources. Although we assume a fixed envelop of resources for health across all five scenarios, they may vary in terms of the short-run implementation costs.

T. 3.1 DESCRIPTIVE FRAMEWORK FOR INTEGRATION SCENARIOS.

COMPONENT	IMPACT
Financing mechanism	The core features of the scenario’s financing mechanism and its implications for the pooling of HIV and other health funds.
Potential pools of funds	An estimate of the expected allocation of provincial health sector funds across the financing pools and mechanisms the scenario would require. We manipulate MTEF budget estimates (National Treasury, 2015b) for provincial health spending in FY 2016/17 to generate illustrative allocations. ⁷
Governance of HIV funds	How the scenario would distribute responsibility for and authority over HIV funds between the spheres of government, which sphere(s) would be responsible for HIV budget planning, and which would establish and monitor HIV service targets.
Purchasing of HIV services	The opportunities the scenario would create for modifying how the government purchases HIV services.
Implementation and pathway to NHI	Some immediate implementation steps the scenario would require and how the scenario could fit into a new NHI system in the longer term.

Source: Authors.

Legal feasibility

Amid South Africa’s complex constitutional and legal context, in which legislative competence for the health sector is shared among the national, provincial, and local spheres of government, different scenarios would require varying degrees of policy change. For instance, national departments might be able to implement some scenarios on the basis of their executive authority alone. Others, however, might rely on

major enabling legislation. In fact, there is an ongoing debate about whether some of the NHI White Paper (2015)’s proposals would require changes to the constitution. Consequently, in addition to the magnitude of policy change required for each scenario, we also consider the risk of legal challenges when relevant. We relied on our understanding of relevant statutes and on our informants’ insights to assess legal feasibility. A more formal legal analysis would be useful but was outside the scope of this study.

⁷ For scenarios that include pooling HIV and other PHC funds together, we estimate the PHC budget by summing forecasts for district management, community health clinics, community-based clinics, other community services, nutrition, primary health care training, and health facility management for community health facilities, plus 25 percent of projected spending on district hospitals and associated facility management. District hospitals provide both primary and secondary health care services. There is no way to extract from public expenditure data the share of their budgets these facilities spend on PHC. The share is certainly greater than none, and intuitively half seemed the upper limit because even if the majority of district hospital services could be considered PHC, those services should be much cheaper to provide. We then simply selected the midpoint of this range. 25 percent is admittedly arbitrary, so we emphasize the “illustrative” nature of the allocations and note later in the study that much more work needs to be done anyway to better understand the cost of delivering PHC services in various settings. Some of this work is already underway under the umbrella of the NDOH-NT PHC Costing Task Team.



Political feasibility

Political feasibility derives from the political economy of health reform, which is driven by interest groups' views and influence, their ability and willingness to push through or block new policies, and how these factors are mediated through existing institutions. Key interest groups include government officials and agencies, civil society organizations, providers and their professional associations, labour unions, insurers, and patients. Proposed changes to HIV financing arrangements would likely animate treasury and health officials at the national and provincial levels, public-sector health workers, and HIV advocates. Regardless of its other virtues, no scenario would succeed if it could not amass critical support from these and other important constituencies. A full political analysis, including institutional and stakeholder mapping and widespread consultations, was beyond the scope of this study. Nonetheless, we offer insights into the views of some key stakeholders and the likely attitudes of others about each scenario.

Technical feasibility

Each scenario would have practical implications for the financial and performance management of entities and individuals within the health system. Technical feasibility reflects the extent to which they would have the skills and resources to play their proposed role. With scenarios focused on the pooling and management of funds, technical feasibility measures the degree of existing financial and performance management knowhow, as well as the availability and skilled use of information systems for

monitoring, evaluation, and decision making. The scenarios would directly alter processes and data requirements for budget planning, negotiation and execution of contracts, and performance monitoring. All scenarios would require a high degree of capacity, so we estimate technical feasibility in terms of the gap between existing and required capacities of the relevant actors, as well as the ease with which new capacities could be developed.

For the feasibility criteria we again use a qualitative rubric to indicate how challenging a scenario will be to implement. We adopt a three-point scale—high, medium, and low—to indicate their legal, political, and technical feasibility.

Overview of the five scenarios

The characterization of South Africa's government financing system for health and HIV in Section 2 serves as a natural starting point for the development and analysis of the proposed scenarios. Here we describe five scenarios designed in close consultation with government counterparts and other stakeholders, as well as evaluate them according to the impact and feasibility criteria detailed earlier in this section.

1. **Sustained HIV conditionality:** HIV funds would remain ring-fenced in the HIV CG, and all other financing channels would remain in place, with PES funds covering most other health services.
2. **National HIV Fund:** The majority of funds from the HIV CG would be used to seed a new NHI Fund, which would purchase a package of personal HIV services.

3. **Unconditional integration:** The HIV CG would be eliminated, and all HIV funds would be folded into the PES. The PES allocation formula would be modified to account for HIV burden.
4. **Ring-fenced PHC integration:** PES funds currently paying for PHC services would be folded into the HIV CG to create a Comprehensive PHC conditional grant that would support a wide range of personal PHC services, including those for HIV.
5. **National PHC Fund:** In an amalgam of 2 and 4, PES funds currently paying for PHC services and funds from the HIV CG would be used to seed the NHIF, which would purchase a package of PHC and HIV services.

These scenarios represent a range of options, including maintenance of the current financing arrangements, that vary principally along two key dimensions of interest to senior government officials. First, the scenarios imply differing **levels of national influence over the management and use of HIV funds.** The HIV CG mechanism empowers NDOH to strictly oversee business planning and performance monitoring for provincially managed HIV service delivery, including by withholding funds from underperforming provinces. Consequently, it is important to consider how any scenario might modify NDOH's oversight authority. Moreover, the NHI White Paper (2015) proposes a single national Fund as purchaser of all health services; therefore, whether scenarios would alter the extent of health financing centralization is germane to the broader

NHI policy discourse. Scenarios 2 and 5 would increase national influence over HIV funds, while Scenario 3 would dramatically curtail it. Meanwhile, Scenarios 1 and 4 would retain the current level of influence.

Second, the scenarios represent varying **degrees of integration in pooling of HIV and non-HIV health financing.** As Section 2 notes, collection and purchasing are already considerably integrated, while pooling is not.⁸ It is important to reiterate that these descriptive ratings of integration are, in and of themselves, non-normative. Whether greater integration in pooling and purchasing is better for a health system—for example in terms of efficiency, access, quality, or equity—is empirically uncertain. There are plausible hypotheses for why integration would enhance health system performance, just as there are well-founded reasons to prefer stricter ring-fencing for ensuring spending and reporting on priority health issues. The scenario-specific analyses later in this section address these issues in greater detail.

Scenario 2 is non-integrative because, although it would reconfigure HIV financing, it would not increase the extent to which HIV funds are pooled with money for other health services. In fact, it would entail a less integrated approach to purchasing and perhaps even to service delivery. Scenarios 3, 4, and 5 all would represent significant increases in the degree of pooling integration. Scenario 3 would integrate pooling of HIV and all PES health funds, while 4 and 5 would integrate pooling of HIV and PHC funds. Meanwhile, the extent to which these scenarios integrated purchasing would depend on a number of

⁸ These characterizations of integration in South Africa are broadly consistent with those provided in Blanchet et al. (2014). However, in focusing on government financing only, this study's evaluation of the three financing functions is slightly different.

additional policy choices pertaining to the potential implementation of a purchaser-provider split, selection of various payment mechanisms, and contracting of private providers alongside public ones to deliver services.

Figure 3.1 situates the five scenarios along these two dimensions, as well as illustrates a major difference between the HIV CG and PES health funds in the current financing system. The horizontal axis reflects the extent of national control over the use of HIV funds, while the vertical indicates the extent of integrated pooling for HIV and non-HIV health financing. Integrated purchasing is also of great policy interest, but the possible modalities of purchasing are largely unrelated to those of pooling, at least in the near term. For example, with no adjustment to pooling arrangements, the government could already introduce strategic purchasing mechanisms that tie HIV and other health financing to service delivery outputs or even outcomes. Likewise, there is no specific purchasing system inherent to the creation of an NHIF. That entity could continue to provide input-based budgets to providers or adopt a wide range of contracting processes, many of which would require a purchaser-provider split.

While not exhaustive, the scenarios capture a broad range of pooling options. Common to all is a sense, both intuitive and validated through consultation, that with sufficient political support, the scenario could be implemented in the next three to five years. At the same time, Scenarios 2–5 could not be realized over night; rather, they would require a sequence of preparatory and implementation steps. These are addressed for each scenario below and again in Section 5. This near-term timeframe also motivates a

focus on integrating HIV and PHC financing. More complete financing integration across the entire continuum of care, particularly with respect to purchasing, would entail even more radical health reforms than those the White Paper (2015) proposes.⁹

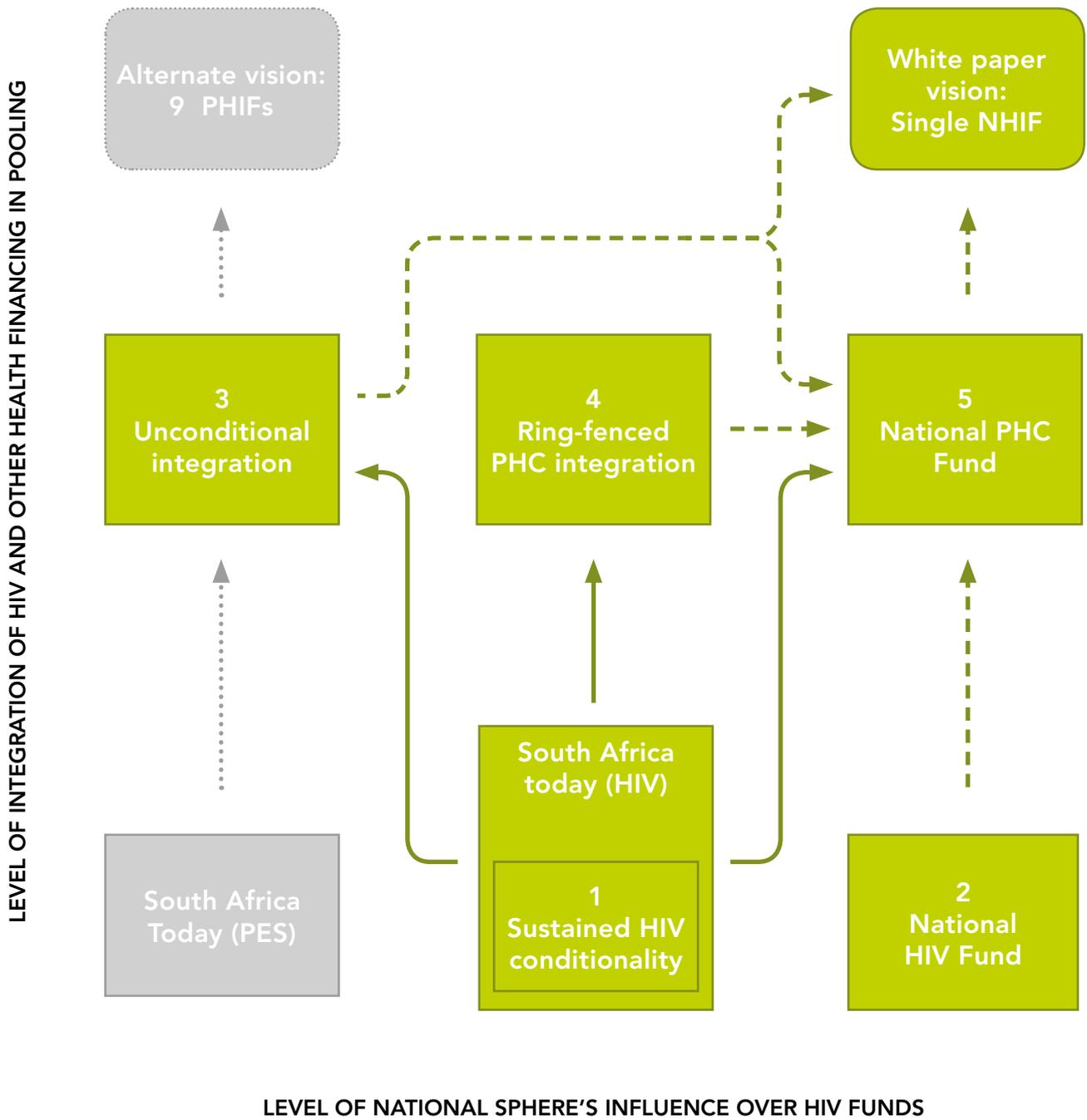
In the long run, and especially in the context of South Africa's evolving NHI discourse, none of the scenarios is intended as an endpoint. Instead, each represents a possible step toward NHI—either as envisaged in the White Paper (2015) or alternative structural models—and indeed multiple scenarios could be sequenced in a multiphase reform process. The lines in Figure 3.1 indicate just some of the possible pathways from the current system to NHI, with the solid lines indicating movement from the current system to any of the other scenarios. Scenarios 2, 4, and 5 are all direct steps toward a centralized NHI system such as that proposed by the White Paper (2015) (dashed lines). In contrast, Scenario 3 may only be constructive as a step toward a more devolved NHI system, one in which each province operates its own Provincial Health Insurance Fund (dotted lines). This would diverge significantly from the White Paper (2015) vision.

The subsections that follow present short summaries of each scenario. They follow a standard format based on the descriptive and evaluative frameworks described earlier. Additional comparative analysis and discussion of the five scenarios can be found in Section 4, while the key questions and next steps for South Africa emerging from this study are presented in Section 5. More detailed analysis of each scenario can be found in Appendix 2.

⁹ Such reforms might include the integrated management of district health systems in which payments are linked to patient or population outcomes regardless of the care delivery setting; this would be akin to the Accountability Care Organization (ACO) model currently being piloted in the United States.

F.3.1

SNAPSHOT OF FIVE SCENARIOS FOR HIV FINANCING REFORM.



Source: Authors.

Notes: Solid lines indicate movement from the current HIV financing approach (Scenario 1) to the other four scenarios presented in this study. Dashed lines (Green) depict potential pathways from those scenarios to the NHI system proposed in the White paper (2015). Dotted lines (grey), in contrast, show the potential pathway from the current system to a more devolved NHI scheme in which each province manages its own insurance fund.

Abbreviations: NHIF = National Health Insurance Fund, PES = provincial equitable share, PHC = primary health care, PHIFs = Provincial Health Insurance Funds.

Scenario 1: Sustained HIV conditionality

Financing mechanism

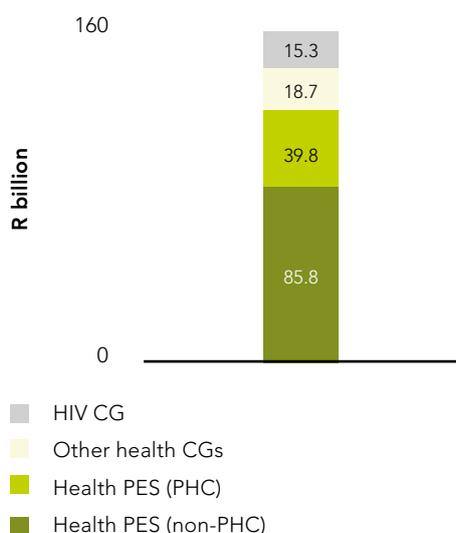
Scenario 1 would maintain the status quo. The current financing mechanisms for HIV within DOH would be retained, and the bulk of government spending on HIV would be channelled through the HIV CG. The annual Division of Revenue Act (DORA) would continue to indicate the conditions for the grant, stipulating each subprogramme's allocation and targets. NDOH, in consultation with each PDOH, would continue to determine annual allocations to provinces and targets for each HIV subprogramme, and the provinces would continue to report on these quarterly.

Rationale

The HIV response deserves independent focus and management, even at the cost of some inefficiency in the health system. Until NHI plans are finalized and critical decisions are made about how HIV services will be provided under the new scheme, it may be premature to alter a well-functioning system which has enabled unprecedented annual funding increases for the provision of essential curative and preventive HIV services. Sustaining HIV conditionality and harnessing the HIV programme's business planning and monitoring strengths will ensure that funds are used for their intended purpose and performance targets are achieved.

Pools of funds

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

Governance of HIV funds

- NDOH would continue to oversee HIV CG spending, set targets and monitor outputs. The CG would specify priority interventions and measurable performance standards.
- Provinces would develop business and budget plans, oversee service delivery, and report on performance.
- Districts and facilities would deliver HIV and other services based on business plans and budgets determined above.

Purchasing of HIV services

- Input-based budgets for HIV would continue to be standard for providers, often with inputs shared between HIV and other services (e.g., clinicians, exam rooms).
- Surplus funds might be spent on low-priority HIV activities instead of much needed non-HIV services.
- Provinces could pilot active purchasing arrangements with high-performing Ideal Clinics or private providers.

Implementation and pathway to NHI

- The current HIV financing system could precede either further centralization of HIV (and other) funds, such as under Scenarios 2, 4, and 5, or further devolution of HIV funding, such as under Scenario 3.
- In the near future, experience with the HIV CG could be the basis for building wider capacity for contract management and performance monitoring, which will be essential for the NHI system. Facilities in the NHI pilot districts could be the natural starting point during the next phase of the Ideal Clinic Programme.

Impact

Note: Scenario 1 is the reference scenario against which we assess the potential impact of other scenarios. Therefore, we comment on the HIV response, PHC services, and health system efficiency under the status quo, but we do not offer impact ratings.

HIV response

The HIV CG would continue to ensure adequate funds are committed and spent accordingly on HIV, and therefore would protect the performance of the HIV response and achievement of national targets. The HIV and TB Investment Case (Department of Health, South Africa & South African National AIDS Council, 2016) is already guiding the budget proposal and business planning processes for the conditional grant, helping to justify additional resource allocations in pursuit of ambitious national 90-90-90 coverage targets.

PHC services

Sustaining HIV conditionality would not likely affect PHC services directly. The benefits (and costs) of the CG framework would not be expanded to PHC, nor would the financing structure necessarily promote further integration of service delivery. Lack of integrated service delivery is but one small portion of the challenges faced in PHC. There are many obstacles to improved PHC services, including stagnant PHC budgets, minimal accountability, weak management capacity, and inadequate data and models to guide budget planning.

Health system efficiency

Any inefficiency from overlapping planning and oversight systems would persist, as might inefficient spending driven by strict ring-fencing. There is anecdotal evidence that surplus HIV funds are spent on excess equipment and conferences because they cannot be reallocated to other PHC services. This has not been documented or quantified, but complementary measures to encourage more flexible use of CG funds at the provincial and provider levels, such as a waiver process to repurpose HIV funds when service targets are met, could integrate and improve service delivery and reduce inefficient spending. The ongoing process of developing and executing District Implementation Plans could also improve the efficiency of resource allocation among HIV, TB, and selected maternal and child health activities.

Feasibility

Legal: HIGH

Sustaining HIV conditionality would not require any policy reforms. The grant mechanism is well established in South African law, and it remains fully compatible with the distribution of governmental responsibilities envisaged by the National Health Act (2004) and the Constitution.

Political: HIGH

NDOH is eager to move forward with NHI implementation, but possibly not so rapidly that HIV financing should change in the next three to five years. More generally, the current system of dedicated HIV funding and programme management enjoys considerable support from NDOH, PDOHs, SANAC, and probably HIV advocates. NDOH and NT are both keen on more integrated financing, which might be pursued within the current financing structure, as is being done with TB starting in FY 2016/17.

Technical: HIGH

The core capacity required for planning, budgeting, and monitoring CG spending and HIV activities already exists. Financial and performance management systems for HIV continually evolve and improve, and integration of TB more fully into the CG mechanism will require additional capacitation at various levels of the system.

Scenario 2: National HIV Fund

Financing mechanism

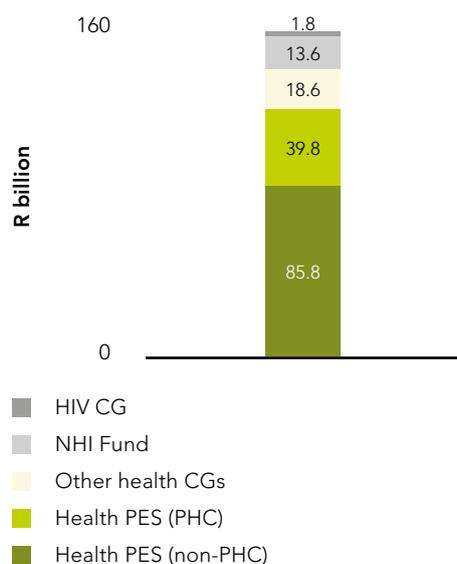
Scenario 2 would seed the NHI Fund with funds from the HIV CG and the small NHI CG.¹⁰ The Fund would purchase a package of personal HIV services, including care, treatment, and biomedical preventive services like PMTCT and MMC. Once a purchaser-provider split is instituted, the Fund would purchase services through contracts negotiated with public and private providers. HIV-related public health activities, such as social behaviour change campaigns (SBCC), demand creation for MMC, programmes for high-transmission areas, and procurement and distribution of condoms, would be funded via a small CG. Scenario 2 would not further integrate HIV financing, and it might reduce the extent of integration, particularly in purchasing.

Rationale

Scenario 2 would protect financing for more effective and measurable administration and delivery of HIV services, but it would also involve more explicit steps than Scenario 1 toward NHI. Establishing the Fund would harness the HIV programme's business planning and monitoring strengths to catalyse development of capacity for output-based purchasing and performance management under NHI. This will be key to strategic purchasing, which in the future could drive efficiency gains across many services in the NHI system.

Pools of funds

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

Governance of HIV funds

- The new NHI Fund would control HIV spending while NDOH would accredit providers for payment eligibility.
- Provinces would play a minor role, controlling prevention funds from a small HIV CG for public health activities (e.g., SBCC) and perhaps helping to build district-level financial management capacity.
- District Health Management Offices (DHMOs) would plan budgets and potentially manage service provision.

Purchasing of HIV services

- The NHI Fund could implement strategic purchasing mechanisms to incentivize efficiency and quality improvement in the delivery of HIV services.
- It is not clear how an HIV-focused NHI Fund would purchase an integrated package of PHC services.

Implementation and pathway to NHI

- The Fund would start developing capacity for strategic, contract-based purchasing of HIV services. In the future, non-HIV services could be added to the benefits package.
- The Fund, DHMOs, and providers would all develop financial and information management capacity that will be essential for a well-functioning NHI system.
- This scenario could be a precursor to Scenario 5 and the full NHI White Paper (2015) vision.

¹⁰ This is distinct from the National Health Grant, which as of FY 2016/2017 is called the National Health Insurance Indirect Grant.

Impact

HIV response: ? / - (uncertain/unfavourable)

Strategic purchasing could drive quality improvement and efficiency with well-designed payment mechanisms. However, problems with enrollment and cost-sharing policies could negatively affect access, particularly for poor and stigmatized patients. Moreover, dividing responsibility for personal (NHI Fund) and non-personal (PDOHs) interventions could erode coordination of the overall response.

PHC services: Ø (minimal)

Sustaining HIV conditionality would not likely affect PHC services directly. The benefits (and costs) of the CG framework would not be expanded to PHC, nor would the financing structure necessarily promote further integration of service delivery. Lack of integrated service delivery is but one small portion of the challenges faced in PHC. There are many obstacles to improved PHC services, including stagnant PHC budgets, minimal accountability, weak management capacity, and inadequate data and models to guide budget planning.

Health system efficiency: ? / - (uncertain/unfavourable)

Further separating HIV and other health financing could reduce allocative efficiency, at least in the short run. In contrast, priority setting and health technology assessment could improve allocative efficiency within the HIV response, and strategic purchasing could incentivize more technically efficient HIV services. However, an HIV-focused Fund could complicate management and purchasing of shared inputs, particularly labour, as well as hinder integration of service delivery in the short run. These challenges would recede as additional PHC services were incorporated into purchasing contracts (i.e., movement toward Scenario 5).

Feasibility

Legal: LOW–MEDIUM

Major enabling legislation would be required to establish the Fund as a standalone legal entity. Strategically purchasing all health inputs, including labour, may require changes to employment laws as well. If provinces were bypassed entirely in contractual arrangements, the risk of legal challenge could be considerable.

Political: LOW–MEDIUM

National officials might see this scenario as a valuable step toward NHI, but its lack of integration may put off NHI supporters. HIV programme managers and advocates might be wary without assurances on enrollment policies and access to services. Provinces might resist losing such a large share of their health budget to a nationally controlled Fund, though their options for recourse may be limited.

Technical: LOW–MEDIUM

South Africa already has considerable planning, costing, and tracking capacity for its HIV response, a purchasing-based HIV response would require improved financial management, contracting, and monitoring capacity, particularly at the district and facility levels. The Fund itself would also need to be capacitated; there is little precedent for such a large, government-administered purchasing agency in the country.

Scenario 3: Unconditional integration

Financing mechanism

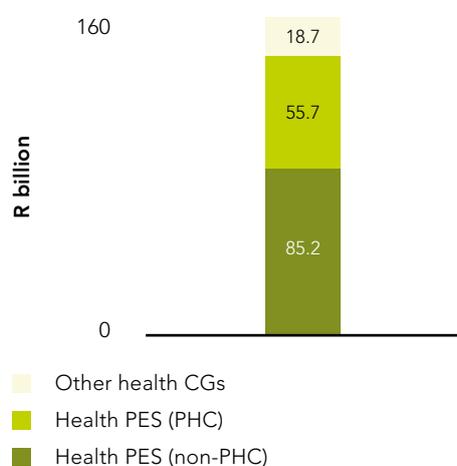
Scenario 3 would entail complete HIV financing integration via abolition of the HIV CG. All provincially managed health sector HIV funding—for both personal and non-personal services—would be channelled through the PES, for which the allocation formula would be adjusted to account for provincial HIV burden. There would be no ring-fencing of HIV funds, and the strict conditions of the CG would be removed. Like for most other health services, the funding and delivery of HIV services would fall fully under provincial authority in accordance with the National Health Act of 2004. Provinces would have full discretion over the allocation of resources across sectors and within the health sector, including for HIV and other programmes, subject only to the financial requirements outlined in the Public Finance Management Act (PFMA).

Rationale

Given HIV's increasing share of the overall health budget, it may be increasingly difficult to justify a large CG focused on a single disease. Giving provinces full control over their HIV budgets might reduce inefficiency by fully integrating HIV and other health financing. The business planning, budget tracking, and performance monitoring systems developed for HIV are already ingrained in PDOHs and could be the basis for improved management practices across all health services. An integrated pool of funds could reduce the need for parallel administrative, management, and oversight capacity across programme areas, and some programme management resources (e.g., personnel, data systems) could be redeployed where needed.

Pools of funds

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

Governance of HIV funds

- Control of HIV spending would shift to provinces, which would determine funding allocations to HIV and its distribution across HIV interventions.
- NDOH could set national targets or benchmarks but would lose its ability to enforce planning, reporting, or performance standards requirements.

Purchasing of HIV services

- Purchasing would likely remain input based, but provinces could on their own experiment with more strategic purchasing or contracting with private providers.

Implementation and pathway to NHI

- Placing the already centralized HIV funds within the PES would run counter to creating a single, nationally controlled NHI Fund and could make it more politically challenging to subsequently incorporate money into such a Fund in the future.
- Scenario 3 could lead to a devolved NHI system with nine provincially managed health insurance funds. This would mimic Canada's social health insurance system but would diverge from current proposals.

¹⁰ This is distinct from the National Health Grant, which as of FY 2016/2017 is called the National Health Insurance Indirect Grant.

Impact

HIV response: - - - (extremely unfavourable)

Loosening the conditionality of the CG might be detrimental to the HIV response because the funds would no longer be ring-fenced and thus would be easily reallocated to other provincial priorities, possibly outside the health sector altogether. Provinces' legislative prerogative and financial management challenges could drive decreases in HIV spending, undermining access to ART, lab tests, and other critical services. This scenario illustrates how financing integration for integration's sake might not be desirable.

PHC services: ? / + (uncertain/favourable)

Placing the HIV funds into the PES might make more resources available for PHC and allow for more efficient spending and improvement of PHC services. However, to the extent that they reallocated HIV funds to other uses, there is no guarantee that provinces would retain those resources in the health sector.

Health system efficiency: Ø / - (minimal/unfavourable)

Eliminating dual management and reporting systems could generate modest savings. However, there would be minimal assurance that funds would be deployed to allocatively efficient interventions; instead, provinces might channel more money to hospitals and non-health priorities.

Feasibility

Legal: HIGH

Unconditional integration could be achieved without any major legislative reforms. Channeling funds via the PES allocation system is already the core mechanism for intergovernmental transfers in South Africa, and there is no law or constitutional provision requiring a conditional grant for HIV in perpetuity. Adjusting the PES allocation formula to account for HIV burden would pose a modest policy design challenge, but the existing distribution of CG resources across provinces would provide a useful starting point.

Political: LOW

Among informants there was clear opposition to this scenario and minimal direct support. NDOH would strongly oppose this option, as likely would provincial HAST Directors and HIV advocates. Other provincial authorities might support it if it could mean more money for non-health priorities. NT officials expressed interest in alternatives to an ever-growing HIV CG, but they would not likely risk harm to the HIV response.

Technical: HIGH

This scenario has the fewest technical requirements. No new capacity would be required beyond existing systems for financial and performance management for PES spending. No special capacity would be needed for provinces to apply the same management systems in place for PES funds to a larger pool of money. Moreover, provinces already oversee HIV service delivery; in this scenario they would be liberated from the financial management processes demanded by the CG mechanism.

Note: PDOHs' capacity to protect and manage their health budgets for specific programmes is generally weak and subject to other provincial priorities, political agendas, and misuse. Protecting HIV funds within the PES, and hence the achievements made in the HIV response, would require capacity building within PDOHs and improvement of the PES reporting and control mechanisms. It is uncertain whether the capacity that has been built to cost and budget for the HIV CG would be retained and continued if the funds were channelled through the PES. Potentially these skills could remain and perhaps be applied to other PHC services.

Scenario 4: Ring-fenced PHC integration

Financing mechanism

Under Scenario 4, the scope of the HIV CG would be expanded to include all of PHC, fully integrating financing for HIV and other PHC services. The resulting Comprehensive PHC CG would be modelled on the existing HIV CG, with funds managed by provinces in accordance with a revised CG framework for all PHC services. There would be at least two possible approaches:

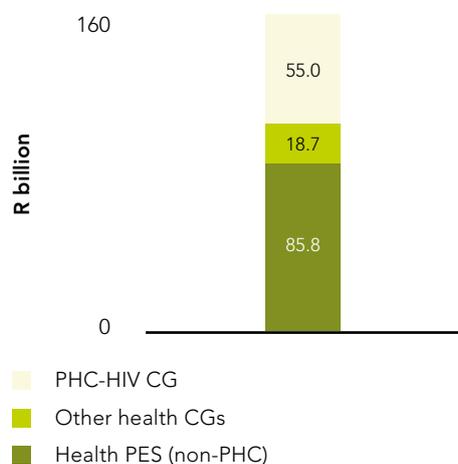
1. PES funds currently spent on PHC could be shifted to the HIV CG. The share of national revenue distributed via the PES would be reduced, as would be the share of PES funds allocated to health.
2. More incrementally, new funds could be added to the CG over several years to cover PHC services. This is already happening on a small scale with the fuller integration of TB into the CG framework in FY 2016/17 and addition of new funds for TB starting in FY 2017/18. In future years other PHC service areas could be integrated as well, perhaps starting with maternal and child health.

Rationale

Since its inception, the HIV CG has been instrumental to the scale and quality of the world's largest HIV programme. Meanwhile PHC service delivery in government facilities has reportedly struggled. Extending ring-fencing around PHC funds could potentially imbue PHC services with the same rigorous planning, monitoring, and evaluation that underpin the HIV programme's success. It would also require improving capacity for PHC resource needs estimation, budgeting, and reporting. Finally, it might reduce financing barriers to integrated service delivery, thereby promoting better and more efficient use of resources.

Pools of funds

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

Governance of HIV funds

- NDOH would oversee HIV spending, set service targets, approve business plans, and track performance.
- NDOH influence would extend to the rest of PHC services, for which similar planning and monitoring processes would be developed.
- Provinces would continue to oversee service delivery.

Purchasing of HIV services

- Over time PHC budgets would be linked to output and outcome targets, as is the case currently for HIV.
- Provinces could also experiment with strategic purchasing of an integrated package of HIV and other PHC services.

Implementation and pathway to NHI

- An integrated pool of PHC funds could be the first step toward the Transition Fund proposed in the White Paper (2015), which is similar to the National PHC Fund we describe in Scenario 5.
- In the short run this scenario would vest financial management capacity at the provincial level, whereas the NHI White Paper (2015) proposes shifting management to the district and facility levels.

Impact

HIV response: Ø / - (minimal/unfavourable)

Current HIV planning and monitoring systems would persist and be combined with analogous processes for other PHC services. There could be trade-offs between allocative efficiency and total HIV spending; full integration might lead provinces to shift funds between HIV and other PHC services, while retaining separate sub-pools within the PHC CG could temper any gains from integration.

PHC services: ++ (very favourable)

Integrating and ring-fencing HIV and other PHC financing should improve the planning, tracking, and monitoring of PHC spending and service delivery. Integrated financing may also lead to more spending on non-HIV services, both from shifting funds from HIV activities and the likelihood that the CG will grow faster than the general health budget drawn from PES funds. If new funds were added to the CG, there would be some risk that provinces would substitute away PES spending on PHC, which would dampen gains.

Health system efficiency: ? / + (uncertain/favourable)

Integrated financing could promote allocative efficiency across HIV and other PHC interventions. It may also yield economies of scope in programme management. Technical efficiency may depend on more strategic approaches to purchasing by provinces.

Feasibility

Legal: MEDIUM-HIGH

Retaining PHC's share of the PES funds at the national level would represent a significant change in intergovernmental fiscal relations and could invite legal challenges from provinces. Incrementally adding new PHC funds to the CG would be more feasible, particularly in the next three to five years. The CG mechanism would need to change gradually to accommodate an increasing share of PHC services and funds.

Political: MEDIUM-HIGH

NDOH might find appealing this incremental step toward greater national control over all PHC spending, especially if it were coupled with additional preparatory steps for NHI. NT might be wary of creating a massive PHC CG, particularly if it required clawing back to the national sphere a large share of PES funds. However, if integrated ring-fencing facilitated more strategic purchasing of PHC services, NT might consider this scenario a useful step toward the creation of an NHI Fund. Provincial officials would likely object to losing a large portion of their PES budget, while adding new funds to a PHC CG could appeal to provinces, whose overall social sector budgets would increase.

Technical: MEDIUM

Ring-fenced integration would require expansive scale-up of costing, budgeting, tracking, and monitoring competencies for PHC services. Resource needs for PHC are currently not well understood or researched, though the NT-NDOH PHC Costing Task Team has begun to fill key knowledge gaps. Similarly, considerable effort would be required to develop appropriate PHC indicators and expand the systems for provinces to routinely collect and report them. Incumbent systems for HIV would provide a useful foundation, but both research and capacitation would be required to extend those systems to all of PHC.

Scenario 5: National PHC Fund

Financing mechanism

Under Scenario 5, the NHI Fund would be established first as a PHC Fund with a large pool of resources to purchase an integrated PHC benefits package that includes personal HIV prevention, care, and treatment services. Similar to Scenario 4, there would be two possible approaches for creating a National PHC Fund:

1. The Fund could consolidate most of the HIV CG, the entire NHI CG11, and the portion of PES funds corresponding to anticipated PHC spending.
2. Most of the HIV CG and the NHI CG could seed the Fund, with new resources added incrementally.

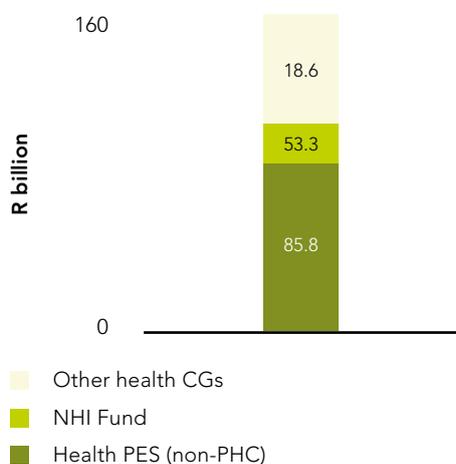
In either case, the fate of financing for non-personal HIV services might be different from that of financing for personal services. We analyse the implication of integrating these funds into the PES, from which provinces draw resources for other non-personal health activities.

Rationale

Scenario 4 is a step in the right direction but insufficiently ambitious to achieve the government's health reform objectives. Integrated financing may promise some efficiency gains, but the creation of a national Fund capable of strategically purchasing all services could lead to substantial improvements in access to high quality, efficiently delivered services for the entire population. Health reform is politically challenging, so each step should be as ambitious as possible.

Pools of funds

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

Governance of HIV funds

- The Fund would assume the purchasing function for PHC services, with DHMOs managing service delivery.
- NDOH would consult with the Fund, DHMOs, and providers to set policies, accreditation criteria, and performance standards.

Purchasing of HIV services

- The NHIF would enable a shift from input- to output-based budgeting and an eventual purchaser- provider split.
- Any payment mechanism(s) could be instituted to incentivize quality and efficiency, including capitation for PHC as proposed in the NHI White Paper (2015).
- In the near term, payment for HIV and other PHC services might need to remain separate until risk- adjustment mechanisms were in place.

Implementation and pathway to NHI

- This scenario may align with the Transitional Fund for PHC proposed in the NHI White Paper (2015). Beyond PHC, the NHIF could eventually collect all health funds and purchase all personal services.
- NHI pilot districts would be a natural starting point for strategic purchasing.

¹¹ As in Scenario 2, the NHI Indirect Grant (previously the National Health Grant) would not be implicated in this scenario.

Impact

HIV response: ? / - (uncertain/unfavourable)

Similar to Scenario 2, strategic purchasing could drive quality improvement and efficiency with well-designed payment mechanisms. However, clumsy enrollment and cost-sharing policies could negatively affect access, particularly for poor and stigmatized patients. Moreover, dividing responsibility for personal (NHI Fund) and non-personal (PDOHs) interventions could erode coordination of the overall response. At the national level, oversight and funding for HIV activities could be diluted due to integration with financing for the rest of PHC.

PHC services: + (favourable)

Strategic purchasing and improved performance management could strengthen PHC services, especially if the Fund effectively linked financing to clinical behaviours. Integrated financing could bring more resources for non-HIV services and capitalize on the planning and performance monitoring strengths of the HIV response. Enrollment and cost-sharing policies would demand careful design to ensure equitable access.

Health system efficiency: ? (uncertain)

Integrated purchasing could improve allocative efficiency across PHC services, especially if the benefits package prioritized preventive and cost-effective services. Well-designed payment mechanisms could also incentivize quality improvement and efficiency at the facility level. Simply merging all PHC financing in the Fund, however, would achieve little on its own.

Feasibility

Legal: LOW–MEDIUM

Establishing a National PHC Fund would require legislation amending the National Health Act of 2004 to create the Fund, its governance structure, and the process by which the benefits package would be defined and modified over time. The policy design process would likely be protracted: the 2004 law was based on a White Paper from 1997. Nationalizing much of the health budget could also invite constitutional challenges, particularly if PES funds were implicated.

Political: MEDIUM

NHI proponents might champion this scenario as a decisive step toward the White Paper (2015)'s vision. The pace of implementation might dictate the level of NDOH support; some officials may be wary of complicating or undermining the pursuit of ambitious HIV targets, especially if non-personal services were not well handled. Provinces may strongly resist nationalization of funds, but their options for recourse may be limited. An incremental approach that respects current PES allocation levels may be more feasible.

Technical: LOW

Implementing a National PHC Fund would require considerable new financial management and performance monitoring systems, not to mention the capacitation of a new, complex government institution. Some of this capacity could be built atop existing planning and data collection processes in place for HIV and other services, and there would be a few straightforward implementation steps, such as setting up provider bank accounts. Others would require considerably more time and effort, including training a large cadre of financial managers at the facility and district levels. It would be quite ambitious to build all the requisite capacity in only three to five years.

Scenarios wrap-up

This concludes our summaries of the five scenarios. Appendix 2 contains more detailed analysis of each one. Next, in Section 4 we discuss key points of variation and highlight major issues policymakers will want to consider as they determine the path forward for South Africa's publicly financed HIV response and health system more generally. In Section 5 we conclude with recommendations for additional analysis that can contribute to the implementation of a selected scenario or some variant thereof.



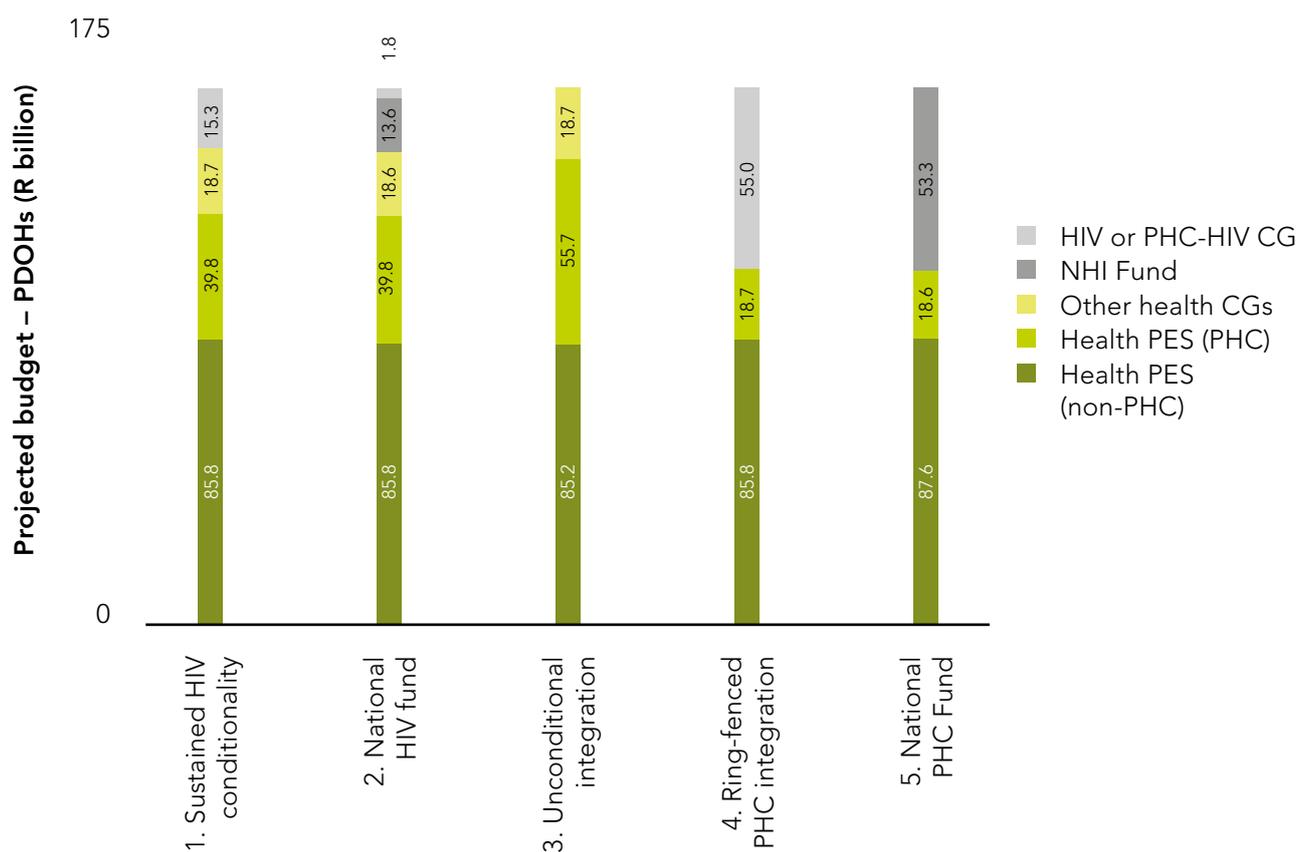
Section 4: Discussion

Drawing on our analysis in Section 3, we now compare the scenarios along their several descriptive and evaluative dimensions. These include the allocation of funds across financing pools and the distribution of responsibilities for governing HIV funds across spheres of government and actors therein. They also include the scenarios' potential impact on health system performance and feasibility.

Allocation of funds across financing pools

The scenarios would imply different allocations of health funds to various pools. Figure 4.1 consolidates the data from Section 3 to illustrate how HIV and other health financing pools would be structured and resourced based on budget forecasts for FY 2016/17.¹²

F.ES2 ILLUSTRATIVE ALLOCATIONS FOR SCENARIOS 1–5 FOR FY 2016/17 (R BILLION)



Sources: National Treasury (2015b, 2016).

Abbreviations: CGs = conditional grants, PES = provincial equitable share, PDOHs = Provincial Departments of Health, PHC = primary health care.

¹² These figures are aggregate across all nine provinces but may not include all DOH funds retained at the national level.

Side-by-side examination of the pooling configurations reveals several important observations. First, in all cases the majority of revenue for health spending will not be implicated by the financing mechanisms proposed in the five scenarios. We retained all non-PHC funds in the PES, but the government could also explore changes to the management of hospital funds, for instance. Second, two pairings of similar scenarios are evident: 1-2 and 4-5. Within each pairing the size of the HIV- or PHC-dedicated pool of funds would be nearly the same, while only the financing mechanism would differ between a conditional grant and a nascent NHI Fund. With respect to Scenarios 4 and 5, this reinforces the notion that the former could be a natural precursor to the latter. Third, the figure shows how only Scenario 3 would eliminate all ring-fencing around HIV funds, underpinning the concerns about unconditional integration expressed by health officials at both the national and provincial levels.

Governance of HIV funds

Next, Table 4.1 summarizes the key governance features of each scenario.

In Scenarios 1, 2, 4, and 5, the national government would retain a high level of control over how HIV funds were spent (column 2 of Table 4.1). NDOH would play a prominent role in each, while the Fund-oriented scenarios (2 and 5) would naturally also imply a major role for the new NHIF. Under these two scenarios, important questions would arise about the division of oversight responsibilities between NDOH and the NHIF, including which entity would be empowered to suspend payments to providers or districts that failed to meet performance standards. Additionally, Scenarios 2 and 5 would entail greater responsibility for districts than under the

current system. This aligns with the NHI White Paper (2015), which proposes a prominent (albeit undefined) role for DHMOs in overseeing facilities on the provider side of the purchaser-provider split.

Scenario 3 would be quite distinct, placing near-total control over HIV funds with the provinces, much like with the majority of other health financing through the PES. Unconditional integration would liberate provinces from the CG's stringent planning and reporting requirements. NDOH's attempts to promote accountability outside the CG mechanism, such as more closely monitoring spending on the so-called 'non-negotiables,' are not yet viewed as adequate protections for priority programmes. However, there may be opportunities for enhancing such normative measures in the future.

Responsibility for HIV target-setting (column 3) would correspond to the spheres of government with greater control over the use of funds. A high level of control over funds use would correspond to a leading role in target-setting, while a medium level of control over funds use would typically imply a consultative role in target-setting.

The national sphere would not have a leading role in HIV budget planning under any scenario (column 4). As is the case in the current system, PDOHs and Provincial Treasuries would be principally responsible for developing HIV budgets under Scenarios 1, 3, and 4, subject to NDOH's adjustments and approval. Meanwhile, under Scenarios 2 and 5, districts would be responsible for HIV budget planning to reflect the contracting arrangements between local providers and the NHIF. Depending on the details of the purchaser-provider split and the role of DHMOs, providers may eventually need to undertake their own internal budgeting process as well.

T. 4.1 PROPOSED DISTRIBUTION OF GOVERNANCE RESPONSIBILITIES FOR HIV FUNDS, SCENARIOS 1–5.

SCENARIO	LEVEL OF CONTROL OVER HOW HIV FUNDS ARE SPENT	RESPONSIBILITY FOR HIV TARGET-SETTING	LOCUS OF HIV BUDGET PLANNING
1. Sustained HIV conditionality	National – High (NDOH) Provincial – Medium District – Low	NDOH (+ PDOHs)	PDOHs + PTs
2. National HIV Fund	National – High (NDOH + NHIF) Provincial – Low District – Medium	NDOH (+ NHIF + DHMOs + PDOHs)	DHMOs (+ providers)
3. Unconditional integration	National – Low Provincial – High (PDOHs + PTs) District – Low	PDOHs (+ NDOH)	PDOHs + PTs
4. Ring-fenced PHC integration	National – High (NDOH) Provincial – Medium District – Low	NDOH (+ PDOHs)	PDOHs + PTs
5. National PHC Fund	National – High (NDOH + NHIF) Provincial – Low District – Medium	NDOH (+ NHIF + DHMOs)	DHMOs (+ providers)

Source: Authors' assessment.

Notes: In the second column, entities listed in parentheses would bear principal oversight responsibility and authority for HIV funds. In the third and fourth columns, the first entities listed would play the leading role in budget planning and target setting, while those in parentheses would have a consultative role. Abbreviations: DHMOs = District Health Management Offices, NDOH = National Department of Health, NHIF = National Health Insurance Fund, PDOHs = Provincial Departments of Health, PTs = Provincial Treasuries.

Overall, only Scenario 3 would imply radical changes to the governance of HIV funds by reducing the national sphere in most critical functions. The other four scenarios would retain or even enhance the national sphere's prominent role in controlling how HIV funds were used and targets were set, though budget planning would remain driven at more local levels in all five scenarios. The more dramatic changes would relate to

governance of funds for other PHC services. Scenarios 4 and 5 would entail significantly increasing the national sphere's level of control and purchasing power for PHC.

Impact on health system performance

We find considerable variation in the potential impact of the five scenarios on

the HIV response, PHC services, and health system efficiency. Table 4.2 provides a concise scorecard reflecting our analysis.

This portion of the evaluative analysis sheds light on some of the key trade-offs and risks of the scenarios. First, if 'do no harm' is a guiding principle of any HIV financing reform, Scenario 3 (removing the HIV CG) clearly stands out for the widespread view that it could be detrimental to the HIV programme. Informants consistently cautioned that eliminating ring-fencing around HIV funds would lead to insufficient spending and minimal accountability for service delivery. Most of our informants represented HIV-related interests, but the state of other government health services may corroborate their views. For example, PHC services in public facilities are generally thought to be of poor quality relative both to publicly provided HIV services and privately delivered PHC. Scenario 3 also serves as an important point of caution for health reformers in other countries: financing integration is not inherently beneficial, and in fact it could be detrimental if poorly designed. Scenarios 2 and 5 also merit caution on this front. Equitable enrollment and cost-sharing policies will be crucial to ensuring any NHI-like system does not undermine access to HIV services. Additionally, financing for and effective management of non-personal HIV services will need to be assured.

Second, there is minimal basis for expecting pooling reforms alone to yield major gains to the HIV response. This is partly a reflection of the current programme's strength: the conditional grant mechanism has enabled fairly rapid, evidence-based scale-up of the government's HIV response

with exceptional spending rates and service target achievement.¹³ Given these virtues, the means by which financing reform might further enhance the HIV response relate principally to purchasing rather than pooling. As discussed at the outset of Section 3, potential purchasing reforms could be pursued independently of changes to pooling mechanisms, though the latter certainly helps to define the range of possibilities for the former. For instance, transitioning to a Fund (as in Scenarios 2 and 5) implies eventually adopting a more strategic approach to purchasing services—a defining feature of a purchaser-provider split—but the particulars of payment mechanisms would ultimately determine the extent to which purchasing policy effectively incentivized the efficient delivery of high-quality services. Concurrently, equitable implementation of any financing scheme would require careful management of enrollment policies so as not to disadvantage hard-to-reach populations that require HIV and other health services.

Third, primary health care could be the area of greatest gain from pooling reforms if PHC service delivery were imbued with some of the mechanisms for business planning, tracking, and evaluation currently in place for the HIV response. Benefits may not be immediate because the tools for PHC costing, resource needs estimation, and business planning are not yet as sophisticated as those in use for HIV. However, Scenarios 4 and 5 would both create more urgent demand for such capacity and catalyse research and other investments to improve South Africa's understanding of PHC financial needs and management.

¹³ External financing, particularly from PEPFAR and the Global Fund, has also been important to these achievements. How to phase out this funding is a major question for the future of the HIV programme and should be considered alongside any integration proposals. For example, eliminating ring-fencing of the HIV budget could hinder government efforts to absorb donor programs targeting key populations. Additionally, shifting toward strategic purchasing could include specific plans for contracting with PEPFAR's implementing partners.

T. 4.2 SUMMARY SCORECARD OF LIKELY IMPACT ON HEALTH SYSTEM PERFORMANCE, SCENARIOS 1–5.

SCENARIO	HIV RESPONSE	PHC SERVICES	HEALTH SYSTEM EFFICIENCY
1. Sustained HIV conditionality	Reference scenario		
2. National HIV Fund	?/ -	Ø	?/-
3. Unconditional integration	-- -	?/ +	Ø/-
4. Ring-fenced PHC integration	Ø	++	?/+
5. National PHC Fund	?/ -	+	?

Source: Authors' assessment.

Key: + = favourable, Ø = minimal, - = unfavourable, ? = uncertain. Dual ratings (e.g., ? / -) indicate a primary estimate and possible but less certain alternative.

These investments would bear fruit for the NHI system more generally because they are necessary precursors to decisions about PHC pricing and performance evaluation that should underpin the purchasing policies of any future NHIF. In fact, our analysis suggests that Scenarios 4 and 5 (and their variants)—if carefully implemented—would be the most likely to include strides toward the system envisaged by the NHI White Paper (2015) without unduly jeopardizing the HIV response.

Fourth, we are unable to shed much light on the likely impact of the proposed financing changes on health system efficiency. Prioritization processes, health technology assessment, and other means of improving allocative efficiency are exogenous to the types of pooling reforms embedded in the five scenarios. These are often tied closely to the institutional design of national health systems, and indeed they fall within the remit of one of the government's NHI

work streams. Meanwhile, improvements to technical efficiency are most likely to be driven by strategic purchasing, the details of which will be difficult to design until the government makes key decisions about a path forward for financing integration and, ideally, experiments with multiple approaches to contracting for services. Better management at all levels of the health system may also enhance performance. An additional source of uncertainty is whether private providers, if contracted, would deliver services more efficiently than the public sector. Several informants, including a senior NDOH official and others with extensive knowledge of South Africa's private health care sector, predicted that private providers could be very cost competitive if they could access national tender prices for key commodities, like antiretroviral drugs. In turn, another senior NDOH official confirmed that, in terms of laws or regulation, nothing precludes

extending the economies of scale from national procurement processes to private providers. Indeed, the NHI White Paper (2015) proposes extending these benefits to all accredited providers, public and private.

Commodity prices aside, incentivizing efficiency in the private sector will require careful design of payment policies, monitoring of service quality, and measures to discourage cost escalation. Some provinces are already contracting with private providers to deliver an integrated package of PHC services (including HIV), such as Mpumalanga’s service level agreement with two Right to Care-managed facilities. These experiences should be evaluated to better understand the prospect for scaling private sector delivery of publicly financed services.

This analysis is indicative and should not be the sole basis for decision making. It

highlights the major opportunities and risks posed by each scenario, but it by no means predicts outcomes with a high degree of certainty. Moreover, as we note repeatedly above, many of the scenarios’ consequences will depend on additional policy choices and the effectiveness of their implementation. Nonetheless, even our qualitative and interview-driven methods help to highlight some scenarios policymakers may more easily eliminate from consideration than others. For example, if Scenario 3 indeed fails the ‘do no harm’ test, it may not be worthy of further consideration.

Feasibility

We also find important differences among the scenarios regarding feasibility. Table 4.3 overviews our ratings of each scenario’s legal, political, and technical feasibility, which we define in Section 3.

T. 4.3 SUMMARY SCORECARD OF FEASIBILITY, SCENARIOS 1–5.

SCENARIO	LEGAL FEASIBILITY	POLITICAL FEASIBILITY	TECHNICAL FEASIBILITY
1. Sustained HIV conditionality	High	High	High
2. National HIV Fund	Low to medium	Low to medium	Low to medium
3. Unconditional integration	High	Low	High
4. Ring to fenced PHC integration	Medium to high	Medium to high	Medium
5. National PHC Fund	Low to medium	Medium	Low

Source: Authors’ assessment.



As with the impact criteria, a number of observations emerge from this scorecard. Only Scenario 1—maintenance of the status quo—would be highly feasible in legal, political, and technical terms. By definition the systems are already in place to sustain HIV conditionality, as are the requisite laws and other legal instruments for administration of the conditional grant mechanism. Political feasibility is slightly lower because some NT officials may be growing wary of indefinite growth in an HIV-dedicated conditional grant, and some in NDOH may be eager to move forward quickly with NHI implementation. However, NT will face stiff opposition from NDOH, provincial HIV managers, and HIV advocates to any financing reforms that do not preserve (and indeed expand) the country's robust, scaled, and high-quality HIV response. For this reason, despite its technical and legal ease, Scenario 3 is likely a non-starter politically. NDOH's leadership, including the Minister, are firmly committed both to the HIV programme and to implementation of NHI. Consequently, they would be very unlikely to embrace unconditional integration, which would neither ring-fence HIV funds nor obviously advance NHI rollout.

Scenarios 2, 4, and 5 would present more moderate challenges. They would all pose daunting technical problems, including creating the institutional architecture for a national purchasing agency and defining a benefits package (Scenario 2), integrating PHC financing and generating valid resource needs estimates (Scenario 4), or both (Scenario 5). Recognizing these would be no small tasks, NDOH and NT have already begun to invest in relevant analysis. For example, their jointly convened PHC Costing Task Team seeks to improve understanding of PHC costs and how they differ between the public and private sectors. Concurrently,

one of the NHI work streams focuses on the institutional arrangements and establishment of the NHI Fund, and another is dedicated to preparing for the purchaser-provider split.

Additionally, all three of these scenarios (2, 4, and 5) would require considerable legal effort. The Fund-based scenarios (2 and 5) would require authorizing legislation for the creation of the Fund and the development of processes to define benefits and contract for services from both public and private providers. Similarly, all three would require nationalizing control over funds that have historically been allocated via the PES. By removing some health funds entirely from provincial management, Scenarios 2 and especially 5 could provoke litigation challenging their constitutionality.

Finally, Scenarios 2, 4, and 5 would all be likely to generate both support and opposition across the national departments, at the provincial level, and among HIV advocates. For instance, HIV advocates might resist the Fund scenarios (2 and 5) unless key concerns about enrollment, cost-sharing, and service coverage were addressed. Meanwhile, provinces might oppose the integrative scenarios (4 and 5) if they stood to lose control over a large portion of their health budgets and were increasingly sidelined with respect to health service delivery. The fate of the health sector wage bill looms large. Some informants felt that provinces would more willingly accept integration if, along the way, the national sphere assumed responsibility for paying health workers.

Given that all three of these scenarios would be plausible steps toward the

government's proposed NHI system, galvanizing public and institutional support for systemic reform could be key to overcoming opposition. On the other hand, mismanagement of any interim steps could undercut enthusiasm for

more ambitious NHI policies. Once the government selects its preferred course, much more detailed appraisal of a policy's technical and legal requirements, as well as a thorough political analysis, will be necessary.

Section 5: How to move forward

This study aspires to help South African policymakers (i) to better understand the range of possibilities for HIV (and PHC) financing adjustments and integration in the next three to five years, and (ii) to identify one or more promising options for further study and implementation, on the basis of comparative analysis. The five scenarios described and evaluated in Sections 3 and 4 are indicative of the government's choice set. They provide a useful foundation for debate and decision making within government and beyond with regards to the near-term future of HIV financing and how its integration fits into broader NHI implementation.

In particular, our analysis lays a foundation for several possible next steps in policy design and analysis. First, the time is ripe for the government—namely, NDOH and NT—to choose a scenario for more detailed analysis and possible piloting or implementation. The selected option could be one of the five featured in this study, a hybrid or variant of several, or an entirely different approach from those we have examined.

Selecting any new HIV financing arrangement will generate a substantial list of analytical needs for designing and implementing the new pooling and purchasing arrangements. For example, if PHC services were to be incrementally

integrated into the conditional grant framework and purchased strategically—per the second option in Scenario 4—numerous questions would require attention, including:

- How much does the government currently spend to deliver various PHC services? How much should those services cost?
- What criteria or principles should guide selection and sequencing of services to be integrated?
- What performance indicators should be monitored for PHC?
- What information systems are in place, or would need to be strengthened or developed, to ensure the collection of appropriate performance indicators?
- Should the government more extensively contract with private providers to deliver PHC services, and how?

Additionally, if near-term experimentation with strategic purchasing arrangements appeals to the government, additional questions will arise, including:

- What steps are required to prepare for a purchaser- provider split?

- What information systems and human capacity are needed to negotiate and monitor contracts between the purchaser and providers?
- What are the best payment mechanisms for integrated PHC service delivery? How soon can capitation be sufficiently risk adjusted to account for variable HIV burden? What payment mechanism should be used for HIV services in the meantime?
- What are appropriate prices for PHC services? How can fair pricing be ensured between public and private providers?

Though these questions are motivated by a specific policy option, they are also germane to any future NHI scheme. It is no surprise, then, that the government and others are already working to answer many of them, including through the NHI Work Streams and the PHC Costing Task Team.

Additionally, more detailed political analysis will benefit the design and implementation of any new HIV financing policies. Building on the consultations conducted for this study, more can be done to understand the interests of various provincial officials, HIV and other advocacy organizations, labour organizations including those representing health care workers, and private providers. Related to political economy are the complex dynamics of intergovernmental relations. Financing integration could dramatically alter the distribution of responsibilities and purchasing power among the spheres of government, as would adoption of the NHI White Paper (2015)'s proposals. How to capacitate and empower districts to play their envisaged role, and how quickly, remain critical NHI implementation challenges, as does the

future role of provinces in health financing and service delivery. These matters will interplay with the Presidency's ongoing examination of fiscal federalism, whose outcomes will shape the course of government financing for health and other sectors.

Critically, ongoing efforts to understand and effect HIV financing integration need not preclude, nor should they ignore, other important health financing considerations. As noted in Section 1, this study focuses on public financing because the government already accounts for three-quarters of HIV spending, and major donors have signaled their intention to scale down their programmes in the next five to 10 years. Careful management of the donor transition will be critical to the continued viability and scale-up of South Africa's HIV response. Important questions include:

- What programme areas are primarily funded by donors? How can the government ramp up spending and capacity in these areas?
- What share of donor spending will the government need to absorb, and how quickly?
- What populations do donor programmes serve that could fall through the cracks during the transition? How can the government ensure continuity of services to them?
- How can the delivery capacity of donors' implementing partners be best leveraged as financing shifts ever more to the public sector?

Moreover, as discussed at the end of Section 2, the fate of TB financing must be included in discussions about restructuring HIV financing. The government is only now beginning to integrate substantial

TB activities into the HIV CG, and careful planning is required to ensure that HIV financing reforms reinforce the incipient will and capacity for TB business planning and expenditure tracking that will complement and strengthen performance monitoring for TB services. Policymakers would do well to explore the critical success factors for strengthening the national TB response, including:

- To what extent does HIV-TB integration in service delivery require integration in financing?
- What opportunities and risks will arise if HIV financing is simultaneously integrated with both TB and other PHC services, and for whom?
- What efficiency gains could the government seek through financing reforms in terms of targeting key populations, engaging private providers, and improving access to HIV and TB services?
- What surveillance and monitoring systems need to be strengthened or developed to enable the careful tracking of the impact of TB spending through the CG?
- What capacity needs to be developed within PDOHs' TB units to adequately plan, cost, and budget for their TB funds?
- How can the national government ensure new allocations for TB, via the CG, increase overall TB spending rather than

prompt provinces to reduce their own contributions to TB services from PES funds?

The financing of other types and levels of care is also important to NHI design and implementation. Today PHC (including HIV) accounts for less than half of government health spending. Consequently, there may be substantial opportunities for financing policy, particularly with respect to purchasing, to increase the system's efficiency, both allocative (by prioritizing preventive and cost-effective interventions) and technical (by incentivizing and enabling facility-level operational improvements). The Ideal Clinic Programme and the ongoing process to introduce DRG payments to the 10 national hospitals are both important components of these broader reform efforts.

Taken together, this multitude of current and anticipated activities indicates how promising and formative a time this is for South Africa's health system. As its most visible—and arguably most successful—health programme, the government's HIV response will factor critically into any major reforms. In fact, many of the scenarios we present here would position HIV as the 'tip of the spear' of NHI design and implementation. By charting a course that is both feasible and broadly consistent with its vision for NHI, the government can take meaningful strides toward its conjoined goals of ending the world's largest HIV epidemic and building a vibrant, sustainable, and responsive health system for all South Africans.

Appendix 1: Participants in consultations

NAME	LEGAL FEASIBILITY
Yogan Pillay	Deputy Director General for HIV/AIDS, TB, and MCH National Department of Health
Anban Pillay	Deputy Director General for Regulation and Compliance National Department of Health
Jeanette Hunter	Deputy Director General for PHC National Department of Health
Ian Van der Merwe	Chief Financial Officer National Department of Health
Nthabiseng Khoza	Director, HIV Conditional Grant National Department of Health
Aquina Thulare	Director, NHI National Department of Health
Moremi Nkosi	Director, Insurance National Department of Health
Shaidah Asmall	Senior Technical Advisor for Health System Strengthening National Department of Health
Peter Barron	Senior Advisor National Department of Health
Mark Blecher	Chief Director, Health and Social Development National Treasury
Edgar Sishi	Chief Director, Intergovernmental Relations National Treasury
Aparna Kollipara	Director, Health National Treasury
Dubemi Obugu	Director, Intergovernmental Relations National Treasury
Ogali Gaarekwe	Director, Intergovernmental Relations National Treasury
Jonatan Daven	Senior Budget Analyst, Health and Social Development National Treasury
Fareed Abdullah	Chief Executive Officer South African National AIDS Council
Nevilene Slingers	Executive Manager South African National AIDS Council
Adri Mansvelder	Finance Manager KwaZulu-Natal Department of Health
Juanita Arendse	HAST Director Western Cape Department of Health

Appendix 2: Scenarios – detailed narratives

Scenario 1: Sustained HIV conditionality – sticking with what works

Financing mechanism

Scenario 1 would maintain the status quo. The current financing mechanisms for HIV within DOH would be retained, and the bulk of government spending on HIV would be channelled through the HIV CG. The annual Division of Revenue Act (DORA) would continue to indicate the conditions for the grant, stipulating each subprogramme’s allocation and targets. NDOH, in consultation with each PDOH, would continue to determine annual allocations to provinces and targets for each HIV subprogramme, and the provinces would continue to report on these quarterly.

Rationale

The HIVCG has symbolized the government’s commitment to the HIV response and to the roll out of ART over the years. Despite considerable progress, HIV remains a unique public health threat to South Africa, and the population has come to expect the government not only to provide treatment to all people living with the virus, but also to undertake ambitious prevention activities. Consequently, HIV deserves independent focus and management, even if at the cost of some inefficiency in the health system.

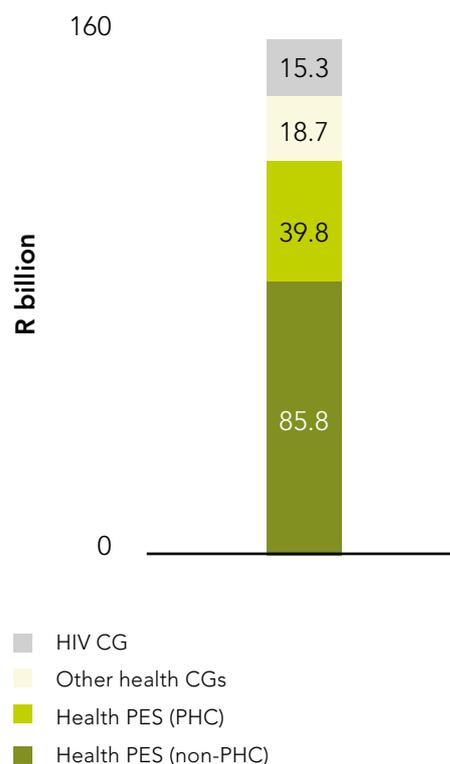
The CG mechanism has enabled unprecedented annual funding increases—HIV accounts for 11 percent of the total health budget—to pay for essential curative and preventive HIV services (Ndlovu &

Meyer-Rath, 2014). In light of the ongoing NHI policy discourse, significant changes to HIV financing may be premature. Until NHI plans are finalized, and critical decisions are made about how HIV services will be provided under the new scheme, it may not be desirable to alter a well-functioning system.

F. A2.1

ILLUSTRATIVE ALLOCATION OF FUNDS IN FY 2016/17 FOR SCENARIO 1 (R BILLION).

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

¹⁴ The NHI conditional grant, which is a direct grant to provinces, is distinct from the National Health Insurance Indirect Grant, which before FY 2016/17 was known simply as the National Health Grant. The latter is not implicated in any of the scenarios.

In the meantime, sustaining conditionality would leverage the HIV programme's business planning and monitoring strengths to ensure that HIV funds were used for their intended purpose and performance targets were achieved. The CG mechanism would continue to ring-fence allocations for HIV and thereby protect the HIV response from provincial discretion to allocate resources across sectors and health programmes. The national sphere would retain the ability to ensure that performance targets were achieved, while provinces would continue to oversee delivery of HIV services.

Detailed description

Pools of funds

Figure A2.1 depicts the expected pools of provincial health sector funds in FY 2016/17 under sustained HIV conditionality. Nearly 80 percent (R125.6 billion) of provincial health spending would flow from PES funds, almost a third of which would be spent on PHC. Meanwhile, the HIV CG would amount to roughly 10 percent (R15.3 billion) of provincial health spending. Other conditional grants, including those for tertiary services, training, infrastructure improvement, and the National Health Insurance conditional grant¹⁴, would amount to around R18.7 billion.

Governance of HIV funds

NDOH would exercise a high level of control over the use of HIV funds. The CG mechanism would continue to specify priority spending areas and measurable outputs for which provinces would be accountable. NDOH would lead the development of service delivery targets in consultation with provinces. The CG mechanism would also continue to enable resource allocation across provinces on the basis of HIV-related needs rather than the PES allocation formula,

which currently does not account for high-burden diseases. The current strong systems of national oversight and accountability required by the CG mechanism would be retained. If provinces did not comply with the conditions or failed to achieve their HIV spending and output targets, NDOH would be able to intervene and even sanction them by withholding CG funds.

Provinces would continue to have moderate control over the use of HIV funds. Provincial DOHs and Treasuries would develop HIV business and budget plans, oversee service delivery, and manage tracking of expenditure and outputs. Meanwhile, districts and facilities would have minimal control over the use of funds, accepting budgets and targets from above. Facilities would, however, continue to make choices about the extent of service delivery integration, often on the basis of guidance from national, provincial, and district officials.

Purchasing of HIV services

Generally, providers would continue to be paid for HIV services according to input-based budgets, and in turn they would use HIV CG funds for their expressed purpose. However, in some provinces CG funds are already used more flexibly at the facility level, particularly with respect to resources shared between HIV and other services—most notably, facility space and health care workers. Such flexibility could be more explicitly permitted, or even encouraged, so as to lessen some of the inefficiency and disadvantages being experienced in PHC service delivery. The national or provincial health departments (or both) could also begin exploring more strategic approaches to purchasing HIV services, including introducing performance-based financing. Facility managers would require decision-making autonomy to respond to new financing policies, including the ability to translate facility-level incentives into a viable performance management system for their

own personnel. High-performing Ideal Clinics in NHI pilot districts would be natural settings for introducing new purchasing arrangements. Likewise, health departments might already consider more extensive contracting with private providers to deliver HIV and other services.

Implementation and pathway to NHI

Sustained HIV conditionality would extend the incumbent HIV financing system for the next three to five years. On its own, it would be a step neither toward nor away from an NHI system, whether that envisaged by the White Paper (2015) or another. Scenario 1 could precede any of the other scenarios, including those involving further centralization of HIV and PHC funds (Scenarios 2, 4, and 5) and the one entailing fuller devolution of control to provinces (Scenario 3). In the interim, the existing CG mechanism could allow for the strengthening of systems for contract management and performance monitoring, building capacity among districts and providers that will be required for NHI implementation. NHI pilot districts may be the appropriate starting point for such capacity building, which could be incorporated into the next phase of the Ideal Clinic Programme.

Impact on health system performance

Scenario 1 serves as the reference or baseline scenario for evaluating all other scenarios' effects on the HIV programme, PHC services, and efficiency. We offer analysis of all three here but omit any ratings.

Effect on the HIV response

As indicated above, the HIV CG would ensure adequate funds are committed and spent accordingly on HIV, and therefore would protect the performance of the HIV programme and achievement of national targets. South Africa is internationally acclaimed for its successes with regards to

its response to HIV. This would continue under Scenario 1, and plans are already in motion for these benefits to be expanded to the TB programme starting in FY 2016/17. Moreover, the new HIV and TB Investment Case (Department of Health, South Africa & South African National AIDS Council, 2016) is already guiding the budget proposal and business planning processes for the conditional grant, helping to justify additional resource allocations in pursuit of ambitious national coverage targets.

Effect on PHC services

Sustaining HIV conditionality would not likely affect PHC services directly. The benefits (and costs) of the CG framework would not be expanded to PHC, nor is there anything inherent to the financing structure that would promote further integration of service delivery. Consequently, the government might consider complementary measures to encourage more flexible use of CG funds at the provincial and provider levels. That said, lack of effective integration with HIV services is but one small portion of the challenges faced in PHC. Officials cited numerous obstacles to improved PHC services, including stagnant PHC budgets—the bulk of resource growth for District Health Services has been for salaries—poor accountability, minimal management capacity, and inadequate data and models to guide budget planning. As one senior official stated, “you cannot blame the CG for the poor delivery of PHC services.” Likewise, it might be unlikely that merely reconfiguring the HIV CG would solve PHC's problems.

Effect on health system efficiency

The conditional grant mechanism for funding HIV services has been efficient in terms of absorption of funds and targeting. The rigorous business planning and performance monitoring systems in place have helped to

achieve an extremely high spending rate—upwards of 99 percent in recent years—alongside achievement of service delivery targets. Although the administrative burden of sustaining such a grant is additional to that required for PES funds management, there is a strong consensus among policymakers and other stakeholders that the benefits accrued in terms of service quality and accountability are worth the extra investment. There may be some duplicative spending resulting from having parallel planning and monitoring processes for the HIV programme and general health services, but the former is widely recognized as being of superior quality and a potentially useful template for the entire health system. To date these stronger financial management and monitoring systems have minimally benefitted financial management or service delivery for PHC more generally. However, more integrated planning is underway across South Africa with the development of District Implementation Plans for addressing performance deficiencies in HIV, TB, and maternal and child health. Widespread execution of these plans will commence throughout 2016, and early signs are promising for improving performance and efficiency, including optimizing resource allocations by the government and development partners (Muzah et al., 2015).

At the provider level, there is at least anecdotal evidence that the rigidity of the CG framework has prevented fuller integration of HIV and PHC service delivery. For instance, in some settings facility space, workers, and supplies paid for with HIV funds are kept separate from other services, resulting in patient and worker dissatisfaction and suboptimal use of clinical resources. In these circumstances PHC services suffer due to insufficient resources relative to HIV. In fact, the need to tag CG spending as HIV related may even lead to overspending on excess equipment and travel to HIV conferences instead of on

much needed PHC supplies. Unfortunately, the extent of this problem—a lack of what one senior NDOH official described as “common-sense integration”—remains poorly documented or quantified. NDOH could investigate further and, if warranted, devise a process by which districts would propose reallocations of surplus HIV funds if their service and outcomes targets are met.

At the same time, some provinces (e.g., KZN and WC) have achieved integrated service delivery despite the vertical funding mechanism for HIV, indicating that verticality alone does not preclude service delivery integration. Provincial officials noted varying degrees of integration of HIV and PHC service delivery, with some reporting that they were fully integrated and that they used the CG strategically to cover HIV costs as well as PHC costs to ensure the optimal quality of service delivery. Even where CG funds are managed flexibly, however, informants felt conditionality is essential to ensuring the continued scale and quality of HIV services.

Nonetheless, officials at the national and provincial levels acknowledged some non-compliant use of HIV funds despite the CG monitoring framework. One senior NDOH official estimated that 10–15 percent of CG funds are spent on non-HIV activities. Noncompliant spending generally arises for one of two reasons. First, provinces may divert CG funds to address cash-flow problems elsewhere in the health sector, such as paying vendors for non-HIV medicines and supplies. In theory there should be a subsequent transfer of funds back to the HIV programme, documented through a re-journalization process, though often this does not occur in a timely fashion (or at all). Awareness of these practices affirms that the CG mechanism is working as intended and that there are other important financial management challenges in need of remedy. In fact, NT, NDOH, and the provinces are already working on addressing

cash-flow challenges, including the potential introduction of prospective payments for laboratory services.

Second, HIV funds are often used to pay for resources shared across multiple programmes, such as health care workers. For example, for accounting ease clinicians' salaries in PHC facilities are typically either allocated entirely to the HIV programme or not at all, even though nurses routinely care for HIV and non-HIV patients alike. In fact, the same NDOH official felt that the HIV programme is a net beneficiary of such shared resources; we found no additional evidence to support or contradict this claim. Either way, this form of cross-programme financing further evinces the possibility of integrated service delivery despite non-integrated pooling mechanisms.

Feasibility

Legal feasibility

Sustaining HIV conditionality would not require any policy reforms beyond those already planned for the incorporation of TB into the CG. The grant mechanism is well established in South African law, and it remains fully compatible with the distribution of governmental responsibilities envisaged by the National Health Act (2004) and the Constitution. Therefore, the legal feasibility of this scenario is high.

Political feasibility

With respect to political economy, there are many stakeholders who support any scenario that protects the gains made in the HIV programme to date. Under Scenario 1, the HIV programme and its funding would be protected from competing provincial health priorities and crises, unfunded mandates, political agendas, misuse, and more. For this

reason, most HIV officials within NDOH and the PDOHs (specifically the HAST Directors), as well as SANAC, prefer sustained HIV conditionality, at least until such time that the implications of NHI policy for the HIV response are clearer. Several NT officials echoed this view, and recognition of the CG mechanism's value is implicit in NT's embrace of an integrated HIV-TB CG starting in FY 2016/17.

In contrast, NDOH officials responsible for PHC would prefer more integrated funding for PHC in hopes that it would drive quality improvements characteristic of the HIV programme. They, together with some NT officials, see the integration of the HIV-TB CG into one PHC funding mechanism as a means to reduce inefficiency, both by eliminating parallel management structures and by promoting integrated service delivery, where appropriate. In fact, to some NT officials the CG's rapid growth is concerning—the HIV CG is now the second largest government grant and accounts for an increasing share of the total health budget—so options to transition away from vertical funding channels may be desirable. Meanwhile, PHC managers at NDOH want to apply the same protections to PHC funding as exist for HIV, rather than dismantling the HIV CG. To them this would be the best option for improving PHC services and accountability. Additionally, maintaining the status quo may forestall progress toward implementing NHI, so some NDOH (and other) officials may prefer incremental changes in the next few years.

Despite these diverse views on the advantages and drawbacks of the current system, there is little evidence that the government would struggle to secure sufficient support should it opt to sustain HIV conditionality for the next several years, particularly if longer-term planning for NHI proceeds apace. Therefore, **the political feasibility of this scenario is high.**



Technical feasibility

Capacity for management of the CG has developed over many years and is relatively well performing at the provincial and national levels. The provincial HIV programme and finance managers have skills in planning, budgeting, monitoring of CG spending, reporting, and linking outputs to outcomes. However, districts still need greater capacity for these functions. Efforts are already underway to improve districts' engagement in the planning and budgeting for the CG. These skills also need to be extended at all levels to TB planning and budgeting as an integrated HIV-TB CG takes shape in FY 2016/17. To the extent that the government wants to introduce contract-based purchasing of HIV (and TB) services using CG funds, additional capacity would be required for contract negotiation and management.

With respect to performance management, provinces already collect and report on HIV programme indicators. The monitoring system took some years to develop, and the programme has achieved good absorption and achievement of national targets. Indicators for the TB programme will similarly need to be determined and collected. As the CG amount continues to increase, there may be need to strengthen the accountability for performance and impact of the CG spending, especially increasing the capacity of NDOH to monitor outcomes, and to ensure provincial compliance and achievement of targets.

Finally, service delivery capacity may need to increase in line with demand for HIV services, particularly ART. For instance, there is growing interest in alternative modalities for dispensing medications so as to alleviate the burden on providers. These considerations

are not unique to Scenario 1, however, and in the meantime sustaining the CG mechanism would ensure that facilities have adequate resources for continued scale-up of the HIV programme.

To summarize, though the CG system still requires deepening some capacity for planning and monitoring, compared to other scenarios these needs are minimal and can be met with relative ease.¹⁵ Therefore, **technical feasibility of this scenario is high.**

Scenario 2: National HIV Fund—a focused start for the NHI Fund

Financing mechanism

Under Scenario 2, the NHI Fund would be established with a moderately sized pool of funds to purchase a package of HIV care and treatment services. The Fund would consolidate most of the HIV CG with the small NHI conditional grant and would pay for personal HIV services, including care, treatment, and biomedical preventive services like PMTCT and MMC. In line with instituting a purchaser-provider split, the Fund would eventually purchase these services through contracts negotiated with both public and private providers. Such transactions would require additional public financial management capacity at the district and facility levels. Public health and non-biomedical preventive services related to HIV, such as social behaviour change campaigns (SBCC), demand creation for MMC, and procurement and distribution of condoms, would continue to be funded via a small conditional grant to provinces. Both pools of HIV

¹⁵ The needs are more substantial and will require considerably more effort for the planned integration of TB into the existing CG. We consider this a separate consideration from whether Scenario 1 is technically feasible for the purposes of sustaining HIV conditionality alone.

funds would be managed and deployed separately from funds for other health services; therefore, Scenario 2 would not further integrate HIV financing and in fact may reduce the extent of integration, particularly in purchasing.

In practice, in the Fund's first one to two years it would retain very similar purchasing practices as those that characterize the current HIV CG. These include linking budgets to output-based resource needs estimates and monitoring performance against both financial and service standards. Over time, the Fund would explore and scale-up more strategic purchasing arrangements with providers, which would also entail phasing out provinces' role as financing intermediaries between the national sphere and facilities. In some ways Scenario 2 would mirror the process of NHI rollout proposed in the White Paper (2015) but with a benefits package focused narrowly on personal HIV services.

Rationale

Like Scenario 1, Scenario 2 would help to protect financing for the HIV response, ensuring effective and measurable administration and delivery of government-financed HIV services. However, Scenario 2 would involve more explicit steps toward an NHI system and the creation of an NHI Fund that would eventually adopt strategic purchasing strategies to promote efficiency and quality in service delivery. Toward this end, establishing the Fund would catalyse development of capacity for output- or even outcome-based purchasing within the public sector

for wider use down the line as part of NHI. In fact, HIV service delivery is the public system's best in terms of business planning and monitoring, making it the perfect programme to pioneer the purchasing and performance management systems that will be essential to NHI's success. Scenario 2 could be the best option for simultaneously protecting the HIV response and leveraging its programmatic strengths for the benefit of the health system more generally. In the future HIV services would also benefit from efficiency gains achieved through strategic purchasing. These will be essential to sustaining and expanding the HIV response, especially if new international treatment guidelines are to be implemented.¹⁶

Detailed description

Pools of funds

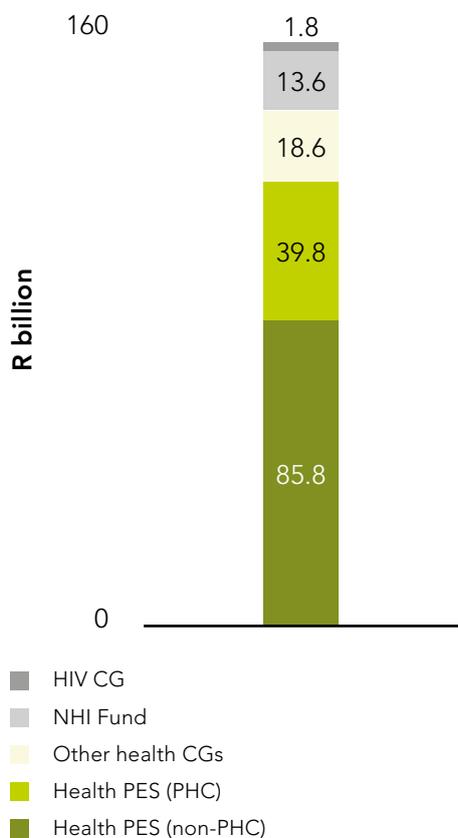
Figure A2.2 depicts the expected pools of provincial health sector funds in FY 2016/17 with the creation of a National HIV Fund. Under this scenario, existing NDOH financing for HIV care and treatment and biomedical prevention would be pooled within the Fund instead of being transferred to provincial health departments. This early version of the NHI Fund would assume responsibility for paying for these services. Nearly 90 percent of the current HIV CG would be transferred to the Fund, representing the personal preventive, care, and treatment services the grant currently covers. These funds would be combined with the current small NHI CG. The remaining HIV CG funds, which currently cover public health activities like condoms procurement and distribution, demand creation for

¹⁶ As of 2015, the World Health Organization recommends initiating on ART anyone who tests positive for HIV, regardless of CD4 count. Current clinical guidelines in South Africa specify treatment initiation at CD4 counts at or below 500 cells per microliter (National Department of Health, 2015b). However, the government may soon update these guidelines to align with the WHO's recommendations ("Nursing SA back to health," 2016).

medical male circumcision, and special programmes for key populations and high-transmission areas, would continue to be tightly ring-fenced and transferred to the provinces as a conditional grant. If applied to FY 2016/17, this policy would shift R13.6 billion to the Fund, while R1.8 billion would flow to provinces in the remaining CG. Other conditional grants (R18.6 billion) and PES allocations to health (R39.8 billion for PHC services and R85.8 billion for non-PHC activities) would remain unchanged.

F. A2.2 ILLUSTRATIVE ALLOCATION OF FUNDS IN FY 2016/17 FOR SCENARIO 2 (R BILLION).

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

Governance of HIV funds

Scenario 2 would entail significant changes to the distribution of financial and programmatic responsibilities across levels of government. Financial authority would primarily be elevated to the national level: not only would the NHIF—proposed to be a centrally managed organization in the White Paper (2015)—assume the HIV purchasing functions currently fulfilled by the provinces, but the government health system would eventually also include a purchaser-provider split for the first time. NDOH would set policy and quality standards by which providers would be accredited for NHIF payment eligibility, as well as establish HIV service delivery and coverage targets in consultation with the NHIF, provincial DOHs, and District Health Management Offices (DHMOs) to continue to scale up the HIV response. Provinces would continue to manage population-level prevention (i.e., public health) activities for HIV via dedicated national transfers as mentioned above. They could also assume a quality monitoring and evaluation role and oversee the building of adequate financial planning and management capacity in districts. In turn, districts would plan HIV budgets and manage the delivery of HIV care, treatment, and biomedical preventive services. Contracts between the NHIF and providers, both public and private, would be developed on the basis of adequate data collection systems to track service delivery outputs and outcomes and providers' financial performance.

The accreditation and payment systems implied by the creation of the NHIF would also enable mechanisms of oversight and accountability, albeit quite different from the current system. First, accreditation for NHIF payment eligibility would be a critical initial check on capacity and quality.

Facilities would have to demonstrate readiness to deliver all services in the HIV benefits package in accordance with quality standards established by NDOH. For public providers, assessment of readiness could be incorporated into the next phase of the Ideal Clinic Programme. Second, the country's health management information system (HMIS) would be improved to enable continual monitoring of service delivery and patient outcomes. Districts excelling in meeting quality standards and coverage targets could be rewarded with additional performance-based payments on the basis of HMIS data, while poor performers could be targeted for support or ultimately sanctioned. This scenario would also open the door to demand-side checks on quality. For example, published performance data could inform patient choice of provider, at least in areas with multiple options.

Purchasing of services

At the moment, HIV financing in the public sector is budget based, although the conditional grant mechanism allows NDOH to influence behaviour at the provincial, district, and facility levels. Provinces must carefully track, monitor, and report financing and service delivery performance against goals agreed with NDOH. However, in addition to creating new public financial management competencies at the facility level, a National HIV Fund could implement more sophisticated and blended payment mechanisms to incentivize desirable provider behaviours. For example, while capitation may promote efficient delivery of care and treatment services, a separate fee-for-service payment may be useful to reward providers for large volumes of preventive activities like MMC. In general, creating a dedicated purchasing agency like the NHIF would promote a transition to more strategic purchasing for HIV services, though it may be

difficult to purchase in an integrated fashion with other services, such as those central to primary health care. Such a transition would need to be carefully sequenced and implemented over time, with new resources pooled in the NHIF commensurate with additional services to be purchased.

Implementation and pathway to NHI

Under Scenario 2, policymakers would face a sequencing choice regarding the creation of the NHIF and the introduction of strategic purchasing for HIV services. For example, the government could prioritize establishing the institutional architecture for the Fund, which the NHI White Paper (2015) characterizes as an "autonomous public entity." Alternatively, NDOH's HIV directorate could incorporate strategic purchasing into the HIV CG, either by further centralizing control of funds¹⁷ or by modifying the conditions imposed on PDOHs. This alternative could characterize a variant of Scenario 1 or serve as a preparatory step toward the HIV-focused NHIF imagined in Scenario 2.

Because our emphasis remains on changes to pooling arrangements for HIV financing, we focus on establishment of the Fund while examining, but not assuming adoption of, possible purchasing reforms.

Creating a functional NHIF capable of strategic purchasing will require several years of capacity building and preparation at all levels of the health system. Initially the Fund would likely maintain the current budget-based approach to purchasing HIV services. Steps could then be taken to design new payment mechanisms, such as costing a package of HIV services and negotiating prices with public and private providers. Concurrently, DHMOs and PHC facilities would have to prepare for new financial management responsibilities, including receiving payments and managing their own HIV budgets. This might mirror

the proposed shadow budgeting process to prepare the country's 10 national hospitals for payments based on diagnosis-related groups (DRGs), though on a much larger scale.

In the long run, this scenario would be a step toward a comprehensive NHI system. A more general PHC benefits package could be incorporated into NHI coverage, after which steps could be taken to include secondary and tertiary services as well. This would require expanding the scope of the benefits package and consolidating additional funds in the NHIF, including the remaining conditional grants (such as the National Tertiary Services Grant) and eventually most or all of PES funds being spent on health.

Impact on health system performance

Effect on the HIV response

It is unclear what the effect of instituting a National HIV Fund would be on the public sector's HIV programme. Much would depend on the extent to which the system adopted certain proposals in the NHI White Paper (2015). In particular, policies for enrollment would need to be carefully implemented to protect and promote gains in the HIV response. For instance, even a simple enrollment process or a requirement to carry an NHI membership card could jeopardize access to services, particularly for key at-risk populations and marginalized groups. Out-of-pocket payments, which the NHI White Paper (2015) generally precludes, could also deter care seeking, particularly by the poor. While the NHI White Paper (2015) would provide a useful blueprint for establishing the Fund and the services it finances, an HIV-focused Fund

would require some distinct features. The government would also need to ensure that new financing arrangements did not disrupt distribution of drugs and provision of laboratory services.

Additionally, the overall resource envelope for HIV would need to be carefully protected and grown to ensure that the programme remained solvent as the NHIF took on mandatory service delivery commitments, including increased target patient volumes, particularly if other health funds are no longer informally (and in as yet only partially quantified ways) subsidizing the HIV programme.

Finally, there is some risk that shifting personal services to the national sphere while leaving non-personal interventions in provincial hands could fragment the HIV response. Coordinating an effective and efficient blend of interventions would become more difficult, as might monitoring HIV spending and performance. Therefore, in the near term **Scenario 2's effect on the HIV response is uncertain (?) because it depends on several other policy choices requiring care not to undermine the programme; indeed, there would be real risk of inadvertent harm (-).**

In the future, strategic purchasing could shape provider behaviour in a number of ways, including promoting increased volumes, quality improvement, and technical efficiency. Access to and quality of services could also increase if private providers become eligible for NHIF payments. In theory, an accreditation regime could also improve service quality in public facilities, though according a senior NDOH official, previous attempts to accredit public

¹⁷ For instance, NDOH could covert the HIV CG into an indirect grant and then distribute funds directly to providers on the basis of purchasing contracts.

providers for participation in the current HIV programme were strongly resisted and ultimately abandoned. Consequently, a new approach to accreditation and its relationship to financing would be required.

Effect on PHC services

The financing changes envisioned under Scenario 2 would not be likely to affect the financing and delivery of PHC services, at least not before they were folded into the NHI benefits package. Until then, PHC would continue to be financed from PES funds managed by provinces. While overlap in service delivery in the public facilities would continue as before, the lack of HIV and PHC financing integration will be further solidified. However, re-journalization (temporary transfer of HIV funds to cover cash flow problems in other health areas) would no longer be possible, leading to the risk of non-HIV service delivery interruptions because of cash flow problems. In fact, this risk may affect health services well beyond PHC. Avoiding these disruptions anyway requires better budget planning and cash flow management by PDOHs. NT, NDOH, and provinces are already working on solutions, including introducing a global payments regime for services provided by the National Health Laboratory System, and more such reforms will likely be necessary in the future. Overall, **Scenario 2 would not be likely to have a meaningful effect on PHC services (Ø)**, and could even be detrimental if other financial management issues were not adequately addressed.

Effect on health system efficiency

The HIV conditional grant has been increasing as a share of national funds both for PHC and for health services overall. It is not clear, however, whether instituting a National HIV Fund to pay for HIV care, treatment, and biomedical prevention services would increase

the efficiency of the health system. Creating a separate, centralized Fund for purchasing HIV services would, at least temporarily, deepen the divide between HIV financing and that for the rest of the health sector. Provinces would lose their ability to cross-subsidize between the HIV programme and other service areas, which could have either positive or detrimental effects on allocative efficiency. Within the HIV programme, the government already carefully considers needs and service targets when allocating funds across provinces and HIV programme areas; an NHIF may not be inherently better at making efficient allocations. However, as the epidemic recedes in some areas, holding HIV funds in a centralized Fund might make it easier for NDOH to reallocate resources between provinces, particularly if reduced need in one province meant its HIV budget should decrease. Additionally, the NHIF would require a process for determining, over time, exactly what services to pay for. Even if the benefits package remained HIV focused for some time, there would be a continual need for priority setting and health technology assessment, both of which could increase the system's allocative efficiency.

Meanwhile, changes in technical efficiency would depend more on how the new NHIF purchased HIV services. For example, capitation for care and treatment services could promote more efficient use of resources at the facility level, assuming health care workers and facility managers faced corresponding personal incentives as well. In contrast, fee-for-service payments tend to promote overprovision of services but may be well suited to one-time preventive interventions like MMC. Moreover, HIV services may be compatible with performance-based payment regimes because they have an easily measured outcome: viral load. Linking payments to outcomes could be a powerful means of increasing performance without spending additional money, thereby enhancing technical efficiency.

Despite these opportunities, an HIV-focused NHIF may also pose challenges to service delivery integration. For example, HIV and other PHC services currently share numerous resources, the most important of which are health care workers. Under prevailing accounting practices, workers are either tagged as HIV related or not even though most provide multiple kinds of care. One senior NDOH official estimated that the HIV programme is a net beneficiary of this imprecise accounting: the amount of “non-HIV” labour time actually spent delivering HIV services significantly outweighs the amount of “HIV” labour time spend delivering non-HIV services. More strictly separating HIV financing from the rest of the health budget could exacerbate these accounting challenges and make providers less inclined to manage and deliver HIV and other PHC services in an integrated fashion. This relates to a major design challenge for any NHI system: will South Africa’s NHIF purchase the labour component of health service inputs in the public sector? Doing so would require significant changes to the contractual relationship between public-sector health workers and the government. Alternatively, or as an interim step, the NHIF could pay only for the variable costs of HIV services, much like Ghana’s National Health Insurance Scheme.¹⁸ Given labour’s high share of total health care costs, excluding it from NHIF payment mechanisms would limit the extent to which strategic purchasing could drive improvements in technical efficiency. While acute, these challenges may be short lived if non-HIV services were fairly quickly added to the NHI benefits package.

Ultimately, simply creating a National HIV Fund would do little to improve efficiency. Instead, several additional policy choices,

such as the design of payment mechanisms, would determine Scenario 2’s effect. Moreover, introducing very new financing arrangements only for HIV services could complicate management and hinder service delivery integration at the facility level, potentially imposing additional costs in the short run. Consequently, **Scenario 2’s effect on efficiency is largely uncertain (?) and potentially even unfavourable (-) in the near term.**

Feasibility

Legal feasibility

The national government could redirect conditional grant funds relatively easily if NT and NDOH agreed. However, establishing the NHIF itself would require significant enabling legislation. The National Health Act of 2004 establishes health-related policy, oversight, financing, and delivery responsibilities for each sphere of government, so the establishment of the NHIF would upend the government’s current health financing, governance, and delivery mandate. At the same time, South Africa would need to pass special legislation to establish the NHIF as a “general government public entity” with specific modalities for its governance (under the PFMA) and financing (such as diverting funds from existing conditional grants). Finally, significant legal reforms and political will would be needed to enable an NHIF—representing a purchaser-provider split in the public sector—to strategically purchase health services, especially if health worker salaries are included. Depending on the changes, civil service rules and even broader labour laws may need to be amended to allow rewards and penalties (including termination of service) to incentivize

¹⁸ In Ghana, despite introduction of an NHI system, public-sector health care workers remain salaried and are paid through the government wage bill.

improved performance. Therefore, **the extent of legislative change required for this scenario mean its legal feasibility is medium at best; the risk of legal challenges over centralization of health funds means legal feasibility may even be low.**

Political feasibility

In terms of political economy, Scenario 2 would likely appeal to some NDOH officials. A key concern of HIV programme managers at the national level has been to protect the gains South Africa has made in promoting better business planning and accountability competencies in the financing and delivery of the HIV response. The national government's control of financing and its strategic use to incentivize improved planning and tracking of financial resources and service delivery targets at the provincial level have been crucial to securing these gains. A National HIV Fund would enable NDOH to safeguard the HIV programme and to take some key steps towards the system proposed in the NHI White Paper (2015). These include instituting a purchaser-provider split in the government health financing system, generating capacity for public financial management at the district and facility levels, and experimenting with contracting and payment mechanisms with public and private providers. However, creating an HIV-only Fund may run counter to the spirit of the NHI movement, in which much of NDOH is heavily invested. NHI proponents may oppose, even on an interim basis, financing changes that entrench vertical financing for a single disease programme.

Additionally, this scenario could face opposition from provinces, which would

stand to lose control of significant health sector resources and whose own health departments could no longer be able to count on HIV CG funds to iron out cash flow problems via re-journalization or as top-up financing for integrated PHC. Even directors of provincial HIV & AIDS, STI, and TB (HAST) programmes may not support the revamping of HIV financing under this scenario if the stricter separation of HIV and other health funds inadvertently deprived the HIV response of PES funds, which currently account for a meaningful share of total HIV spending.¹⁹ On the other hand, additional protections for HIV funds and development of financial management capacity throughout the health care system might appeal to these health officials.

As for NT, because this scenario would retain dedicated transfers for the HIV response, it would not be likely to help control the (recently sharp) growth in the size of the HIV add-on to the national health budget. Hence, NT might stay concerned about finding efficiencies in the HIV response from integrated financing and delivery rather than committing to indefinitely financing a National HIV Fund, even though it would institute a purchaser-provider split in the public sector. A clear plan to expand the NHIF's benefits package might therefore be essential to reassuring NT and other fiscally minded stakeholders that this scenario would be but one step toward larger reform that would promote greater efficiency and quality throughout the health system, not just with respect to HIV services. Similarly, PHC-oriented health officials, who have expressed expectations of leveraging the planning and monitoring capacities of the HIV programme to strengthen PHC

¹⁹ The best estimates of the share of provincial DOH spending on HIV that is financed with PES funds is nearly 20 percent for FY 2013/14 (Guthrie et al., 2015). This share is almost certainly too high because it counts all spending on health workers hired to provide community and home-based care (CHBC) to HIV patients, but these workers also provide many non-HIV services. Nonetheless, the PES share of total HIV spending is clearly not negligible.

service delivery, might resist changes to HIV financing that further insulated it from the rest of PHC.

Finally, South Africa's politically vocal HIV-affected persons and advocates may need reassurance that the NHI enrollment rules under this scenario would not cause programmatic harm nor reduce access to services—such as from ill-conceived policies that risked excluding at-risk populations from coverage, restricted access to drugs, or increased the out-of-pocket costs of clinic visits for personal treatment and prevention services. At the same time, advocates might find appealing the continuation of a large pool of HIV-dedicated funds that remained ring-fenced and linked to financial reporting and service delivery targets and standards. To the extent that a National HIV Fund purchased services from both public and private providers, advocates might also embrace the potential expansion of access, efficiency, and quality that could be driven by contracts and performance incentives. To proactively support this policy, however, advocates would probably also demand assurances that as the benefits package expanded in scope beyond HIV services, financial and human resources currently dedicated to HIV service provision would not be diluted.

In light of expected mixed attitudes among health officials at the national and provincial levels, likely caution among NT officials, and reasons for both enthusiasm and wariness about a National HIV Fund among HIV advocates, **the political feasibility of Scenario 2 is low–medium.**

Technical Feasibility

Appropriate systems and capacities would need to be in place for organizations and individuals to play their respective roles to make a National HIV Fund technically feasible. While South Africa already has

considerable planning, costing, and tracking capacity for its HIV response, the country would need to develop improved financial management, contracting, and monitoring competencies atop these existing systems at the facility level to make a new Fund a reality.

Under Scenario 2, the government would need to build substantial additional capacity for financial management of the HIV response. The HIV CG has helped to develop HIV management and reporting systems whereby the provinces engage in HIV business planning, including planning, costing, and budgeting against service delivery targets and tracking and monitoring of funds and services. However, for a central NHIF to directly contract with facilities, considerable capacity would need to be built for the Fund to manage contracts with providers, price services on the basis of routine HIV costing analysis, develop and oversee national HIV targets, monitor performance, and execute payments. Similarly, greater capacity in the form of human resources and systems would be required in districts and facilities to plan service delivery, make and control budgets, manage contracts, monitor performance, make claims, realize opportunities for efficiency, and more. These competencies are only now being developed at the district level but not yet at the facility level. A gradual process (or perhaps a 'shadow' process) of creating the necessary conditions for purchasing relevant HIV services would also need to be implemented. The types of data systems required to manage finances and track service provision would depend in part on the payment mechanism(s) selected.

The new NHIF would also require systems and capacity to monitor the performance and outputs of all contracted providers. Stewardship and quality assurance are critical functions of an NHI system, and skills and systems to ensure them would take time and resources to build and maintain. From

the current conditional grant mechanism, the national sphere has experience in monitoring performance and outputs of the provinces. This useful experience provides a foundation for directly monitoring individual service providers with which the NHIF would be contracting directly. Currently, provinces rely on district-level data capturers, who collect paper-based records from individual facilities and input them into relevant computerized systems. If the NHIF contracted directly with individual providers, monitoring service delivery contracts would require timeous data entry at the facility level. Planned investment in the Integrated Patient Information System through the National Health Insurance Indirect Grant is a useful step toward developing needed capacity for Scenario 2 (and Scenario 5).

In summary, existing systems would provide a valuable foundation for the technical capacity that would be required to introduce a National HIV Fund, but substantial additional capacity would be needed, including much in levels of the health system with minimal prior experience. Therefore, **the technical feasibility of this scenario is low to medium.**

Scenario 3: Unconditional integration – moving the HIV CG into the PES

Financing mechanism

Scenario 3 would entail complete HIV financing integration via abolition of the HIV CG. All HIV funding would be allocated through the PES, whose allocation formula would be adjusted to account for the HIV burden in each province. There would be no ring-fencing of HIV funds, and the strict conditions of the CG would be removed.

Like for most other health services, the funding and delivery of HIV services

would fall fully under provincial authority in accordance with the National Health Act of 2004. Provinces would have full discretion over the allocation of resources across sectors and within the health sector, including for HIV and other programmes. Although NT would provide guidance and fiscal benchmarks to ensure provinces could meet their financial obligations, the national government would not be empowered to mandate how provinces spend their health funds. As is currently the case with all PES funds, provinces would be subject to the financial requirements outlined in the Public Finance Management Act (PFMA), such as annual planning, budgeting, performance monitoring, and reporting. These requirements are less stringent than those in place for HIV and other programmes funded through conditional grants.

Rationale

Reducing inefficiency in the current financing and service-delivery systems might require full integration of HIV and non-HIV health care financing. A unified pool of funds will reduce the need for parallel administrative, management, and oversight capacity across programme areas. Redundant programme management resources (e.g., personnel, reporting processes) could be redeployed to strengthen overall financial planning and management and develop systems for enhanced, integrated service delivery. With no ring-fencing around HIV funds, provinces would be free of the artificial financing divide between HIV and the rest of PHC, which in some cases leads to inefficient spending.

The conditional grant mechanism has served well South Africa's ambition to build a high-quality, scaled-up HIV response. However, it was never intended to fund HIV services in perpetuity, separate from PHC

and other health services. The business planning, budget tracking, and performance monitoring systems developed for the HIV programme are ingrained in PDOHs and could be the basis for improved management practices across all of PHC, if not the entire health sector.

Additionally, given South Africa's multifaceted health challenges and HIV's increasing share of the total health budget, it is increasingly difficult to justify a large conditional grant focused on a single disease. The HIV CG is the second largest grant in the entire government budget—behind only the human settlements grant—and the health sector will account for more than a third of the R96 billion in conditional grant allocations projected for FY 2016/17. Consequently, and in light of the HIV programme's tremendous success, now could be an opportune time to loosen the CG's stringency and give provinces full control over their HIV budgets.

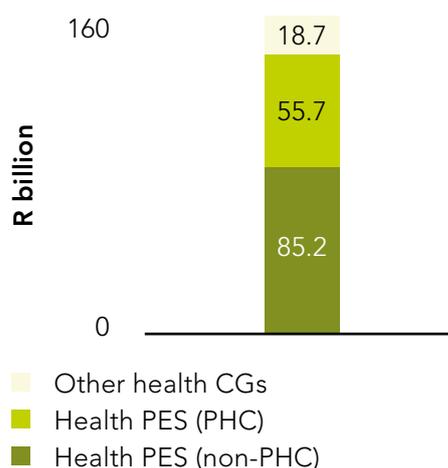
Detailed description

Pools of funds

Figure A2.3 depicts the expected pools of provincial health sector funds in FY 2016/17 under unconditional integration. Combining the allocated amounts for the current HIV CG with expected spending on other PHC services, the total PHC pool of funds would amount to 35 percent (R55.7 billion) of the provincial health budget in FY 2016/17, none of which would be ring-fenced. These PHC resources would be managed in the same pool as the R85.2 billion (53 percent of the total) in voted funds for non-PHC activities, meaning total health funds from the PES would amount to R140.9 billion. Meanwhile, the five non-HIV CGs would account for the rest of the health budget (R18.7 billion, 12 percent of the total).

F. A2.3 ILLUSTRATIVE ALLOCATION OF FUNDS IN FY 2016/17 FOR SCENARIO 2 (R BILLION).

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

Governance of HIV funds

Scenario 3 would entail a radical change to how HIV funds are governed. The national government would no longer exercise control over the amount of funds allocated to HIV services nor their distribution across various HIV prevention, care, treatment, and support activities. Instead, the national level would play a supporting role focused on policy development and capacity building. Importantly, NDOH would still work closely with provinces in setting HIV targets, and NDOH would be able to monitor HIV spending and outputs based on their regular annual financial and performance reports, which could become more rigorous through the non-negotiables framework, for which provinces report monthly. However, NDOH would lack any strong means of sanctioning provinces failing to meet their HIV targets.

At the same time, full control of HIV funds would be transferred to the provinces, which would be free to allocate resources as they saw fit, whether to HIV, other health programmes, or even other sectors. Responsibility for ensuring the achievement of provincial targets, through quality service delivery and timely payment of suppliers, would fall fully to provinces. In principle they would plan, monitor, report, and evaluate PHC services in an integrated fashion, but they would no longer be bound by the stricter quarterly reporting and performance requirements of the CG mechanism.

Purchasing of HIV services

Scenario 3 would not necessarily imply changes to how HIV or PHC services were purchased. Provinces would be free, if so inclined, to experiment with alternatives to the current input-based budget system for public providers. Options could include contracting with private service providers to expand access and improve quality or introducing some form of performance incentives within the public delivery system to increase efficiency, service delivery integration, and service quality.

Implementation and pathway to NHI

Implementation of Scenario 3 would require two short-run steps. First, NT and NDOH would need to agree on a rechanneling of HIV funds through PES allocations. Second, the PES allocation formula would need to be adjusted to account for the distribution of HIV burden across provinces and to ensure additional funds flow accordingly. The burden of other diseases could also be factored in.

Unlike the other scenarios, unconditional integration would not be an obvious step toward the NHI system proposed in the White Paper (2015). Placing the already

centralized HIV funds within the PES would run counter to creating a single, nationally controlled NHI Fund. As is discussed below, the deconstruction of the current CG and the adjustment of the PES formula to account for HIV burden would require considerable political effort. Such effort could be considered wasted if the funds, autonomy, and responsibility given to the provinces in the short run would were to be withdrawn again once the NHI Fund was established. In fact, it could make it more politically challenging to subsequently incorporate funds into the NHIF. However, Scenario 3 might be a natural step toward an NHI vision different from that in the White Paper (2015): the creation of nine devolved insurance funds managed at the provincial level. This option, which would resemble Canada's social health insurance scheme, has not featured in the NHI discourse; however, it could be a useful alternative if full centralization proves too politically (or constitutionally) difficult. Such a system would require extensive capacity building at the provincial level to effectively manage independent funds.

Impact on health system performance

Effect on the HIV response

Scenario 3 would pose considerable risks to the HIV response and its gains to date. All interviewed officials—including those in NDOH's PHC directorate and PDOHs—felt that loosening the conditionality of the CG will be detrimental to the HIV response because the funds would no longer be ring-fenced and thus would be easily reallocated to other provincial priorities, which might not even lie in the health sector. Without the legislative requirements on PDOHs to monitor and report quarterly on both financial and programmatic performance, there would be no way to ensure the national and provincial HIV targets were being

achieved. In addition, the quality of financial management varies across provinces, with cash flow problems often delaying payments to suppliers of medicines and other clinical inputs. If the HIV programme were no longer (mostly) insulated from these issues, the consequent delays in delivery of supplies to facilities could undermine access to ART, lab tests, and other critical services. There is some chance that external pressure (advocacy) would continue to ensure that the PDOHs allocated sufficient funding to HIV. Other opportunities for improving reporting and accountability requirements for HIV and PHC within the PES, such as those being used for the non-negotiables, could also be explored. Nonetheless, the risks to the HIV response would be considerable, so **this scenario would have an extremely unfavourable (- - -) effect on the HIV programme**; in fact, it illustrates how financing integration for integration's sake might not be desirable.

Effect on PHC services

As mentioned above, placing the HIV funds into the PES might make some funds available for PHC and allow for more efficient spending and improvement of PHC services. However, to the extent that they reallocate HIV funds to other uses, there is no guarantee that provinces will even retain those resources in PHC or the health sector at all. Therefore, **this scenario's effect on PHC services is uncertain (?) and potentially favourable (+) if some funds previously meant for HIV are spent on other PHC services.**

Effect on health system efficiency

The effect of unconditional integration on health system efficiency would likely depend on whether there were any concurrent changes to how provinces financed general health services. Provinces rely principally on input-based budgets for government health facilities, and no strict performance standards exist for non-HIV services. Without a robust system of

oversight or reconfigured provider incentives, it is difficult to imagine how this scenario would promote efficiency gains. Nonetheless, a couple of hypotheses are worth considering.

First, the relative size of the HIV CG compared to the rest of PHC spending—it may reach 50 percent by the end of the current MTEF period—implies an opportunity for efficiency gain. One reason could be that the vertical nature of HIV financing constrains the integration of service delivery, meaning in some cases facilities suboptimally allocate human and other resources between HIV services and other activities. However, although some provinces have kept vertical HIV service delivery, this is not true everywhere. In some settings, therefore, blending HIV funds into the PES might allow for more 'common sense' integration in facilities, but the prevailing financing system is not the only (or even main) determinant of whether service delivery is integrated.

Second, the management and monitoring systems in place for HIV may be duplicative of or parallel to those in use for the rest of government health services. PES funds have lesser planning, budgeting, monitoring and reporting requirements, so unconditional integration would require less time and effort of programme and financial managers, whose capacity could be redirected to other activities. However, this would not necessarily lead to improved spending on HIV or PHC. In fact, it could lead to reduced spending on HIV (and perhaps health more generally), or even more wastage of resources if provinces were no longer accountable to NDOH for HIV performance standards. In other words, any savings accrued from reducing the financial management burdens of the CG framework would probably be more than counterbalanced with decreases in HIV spending, reductions in business planning and monitoring, and ultimately worsened service quality.

Finally, this scenario could free provinces to more proactively address rampant cash-

flow challenges by using some HIV funds to support struggling PHC services. However, this too could detract from overall spending on HIV and may not promote efficiency gains at the system level. In summary, there is little reason to expect meaningful efficiency gains from unconditional integration. Therefore, **this scenario's effect on efficiency would be minimal (Ø) or potentially unfavourable (-).**

Feasibility

Legal feasibility

Unconditional integration could be achieved without any major legislative reforms. Channelling funds via the PES allocation system is already the core mechanism for intergovernmental transfers in South Africa, and there is no law or constitutional provision requiring a conditional grant for HIV in perpetuity. Adjusting the PES allocation formula to account for HIV burden would pose a modest policy design challenge, but the existing distribution of CG resources across provinces would provide a useful starting point. **The legal feasibility of this scenario is high.**

Political feasibility

The political economy of removing the HIV CG would be simple: among our informants there was no direct support for this scenario, and there was rather clearly expressed opposition to such a proposal. According to multiple NDOH officials, the Minister of Health would probably oppose such a radical alteration to HIV financing. Moreover, although the HIV advocacy movement has been quieter in recent years, there are powerful constituencies within governmental (NDOH and PDOHs) and quasi-governmental (SANAC) agencies that, concurrent with influential organizations like the Treatment Action Campaign, Section 27, and the AIDS Law Project, could prevent the adoption of any policy that would remove the ring-fencing currently protecting HIV funding.

Some NT officials did express theoretical interest in transitioning away from having such a large conditional grant focused on a single disease, but there were no signals that they were prepared to risk harm to the HIV programme to do so. Additionally, a senior health official noted that political and financial analysis aside, and despite various competing interests, it has become a truism in South Africa that "we treat HIV-positive people in this country." Consequently, **the political economy feasibility of this scenario is low.**

Technical feasibility

Of all the scenarios, unconditional integration would have the fewest technical requirements. The PES funding channel would not require detailed budgets, business plans, monitoring of spending and outputs, or frequent and detailed reporting. Only the regular PES accounting would be required. Thus it would be much easier for provinces to simply manage HIV funds along with other health funds. No special capacity would be needed for provinces to apply the same management systems in place for PES funds to a larger pool of money. Moreover, provinces already oversee HIV service delivery; in this scenario they would be liberated from the financial management processes demanded by the CG mechanism. Therefore, **technical feasibility of this scenario is high.**

However, it is important to note that the PDOHs' current capacity to effectively protect and manage their health budgets for specific programmes is generally weak and subject to other provincial priorities, political agendas, and misuse. Protecting HIV funds within the PES, and hence the achievements made in the HIV response to date, would require capacity building within PDOHs and improvement of the PES reporting and control mechanisms. It is uncertain whether the capacity that has been built to cost and budget for the HIV CG

would be retained and continued if the funds were channelled through the PES. Potentially these skills could remain and perhaps be applied to PHC services more generally. Or perhaps similar systems as for the 'non-negotiables' could be applied to PHC, HIV, and other services.

Scenario 4: Ring-fenced PHC—pushing the benefits of ring-fencing to PHC

Financing mechanism

Under Scenario 4, the scope of the HIV CG would be expanded to include all PHC services. The resulting Comprehensive PHC conditional grant would be modelled on the existing HIV CG. The implicated funds would be managed by provinces in accordance with a revised CG framework that combined business planning, expenditure tracking, and performance monitoring requirements for PHC with those already in place for HIV. There would be at least two possible approaches to creating a large ring-fenced pool of PHC funds (see Box S4.1 for additional options):

1. In order to rapidly ring-fence enough funds for all PHC services, PES funds currently spent on PHC could be added to the HIV CG. Toward this end, the share of national revenue distributed via the PES would be reduced²⁰, as likely would be the share PES funds allocated to health by provinces.
2. More incrementally, new funds could be added to the CG over several years to cover more and more PHC services. This is already happening on a small scale with the fuller integration of TB into the CG framework in FY 2016/17 and addition of new funds for TB

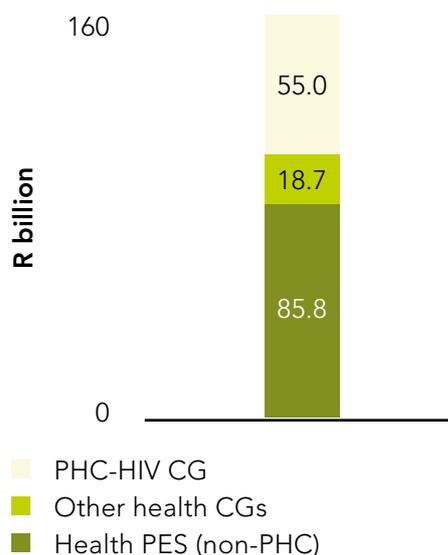
starting in FY 2017/18. In future years other PHC service areas could be integrated as well, perhaps starting with maternal and child health.

Rationale

Since its inception, the HIV CG has been instrumental to the scale and quality of the world's largest HIV programme. It has also spurred the development of new competencies. Since its inception, the HIV CG has been instrumental to the scale and quality of the world's largest HIV programme. It has also spurred the development of new competencies

F. A2.4 ILLUSTRATIVE ALLOCATION OF FUNDS IN FY 2016/17 FOR SCENARIO 4 (R BILLION).

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

²⁰ This assumes no other changes in public financing affecting the share of national revenue that is channeled through the PES allocation system.

BOX S4.1. ADDITIONAL OPTIONS FOR RING-FENCED INTEGRATION.

This scenario is rooted in financing and monitoring approaches for which there is promising precedent. However, there may be additional options. For example, one senior NDOH official proposed developing a new legal instrument that expands national oversight over PHC funds without necessarily removing them from PES allocations. In the past, NT has used 'exclusive appropriations' to designate a portion of provincial budgets for specific purposes, but this mechanism is seldom employed, and even then only for relatively small amounts of money. To expand its use for a large envelope of health resources, for instance more than R55 billion annually for HIV and other PHC services, would be unprecedented and potentially invite legal challenges.

Another option could be NDOH's more normative approach to compelling provinces to better track spending in numerous priority areas. These so-called 'non-negotiables' include an array of basic service delivery inputs, (e.g., medicines, laboratory services), service categories (e.g., children's vaccines, HIV and AIDS), and NHI-related initiatives (e.g., District Specialist Teams) (Shezi et al., 2014). Currently there is no mandatory framework for incorporating non-negotiables into business planning, resource needs estimates, or budget allocations, though the National Health Council has made recommendations along these lines. Such enhancements would mimic many of the accountability mechanisms already built into the conditional grant framework. In the meantime, the non-negotiables approach could be a positive but probably insufficiently stringent step toward ring-fenced integration.

Source: Authors.

Detailed description

Pools of funds

Figure A2.4 depicts the expected pools of provincial health sector funds in FY 2016/17 with ring-fenced PHC integration. The figure corresponds to option 1 above, in which the existing HIV CG would be combined with PES funds currently spent on PHC. About R55.0 billion could be allocated to provinces through a new Comprehensive PHC CG. The rest of health services would be financed through PES allocations (R85.8 billion) and other conditional grants (R18.7 billion).

Governance of HIV funds

Although ring-fenced integration of PHC funds within the HIV CG would entail some realignment of responsibilities across spheres of government, NDOH would continue to exercise a high level of control over HIV funds. Indeed, the scope of its control would extend to PHC funds as well. This would involve designing a process for provinces to develop PHC business plans and defining rules for the implementation and monitoring of those plans. The national government would be able to enforce compliance with its PHC performance standards by withholding funds, just as it can now within the existing CG mechanism.

Provinces would continue to bear responsibility for service delivery, only now their PHC services would also be subject to extensive oversight and monitoring by NDOH and NT. Initially PHC budgets would be based on analysis of historical spending patterns, while over time provinces would develop capacity, with support of the national government, to cost PHC services and generate more precise resource needs estimates. The detailed costing of PHC services would serve as a means of creating transparency and accountability with regards to resource needs, budgeting, utilization, and target PHC service delivery outputs and outcomes at the district and provincial levels.

Under Scenario 4, districts would not have a meaningful role in the governance of the PHC CG. Together with facilities they would accept budgets and targets from above, not only for HIV but also for the PHC services folded into the CG mechanism. Box S4.2 describes an alternate approach to ring-fenced integration in which districts would have a considerably greater role in governing HIV funds; such an approach could potentially contribute to NHI implementation, which will require bolstering district capacity.

Purchasing of HIV services

Many approaches to purchasing HIV services would be possible under a policy of ring-fenced integration. The HIV CG has already elicited strengthened approaches to budget planning linked to targets for service delivery outputs and coverage. Moreover, funds can be withheld to sanction poor programmatic performance or underutilization, improving accountability—if not quality—in the government’s HIV response. In its simplest design, Scenario 4 would entail implementing a similar arrangement for other PHC services, which would benefit from more sophisticated resource needs estimation, planning, tracking, and reporting.

A more ambitious approach would involve one or more additional steps toward strategic purchasing. First, resource needs estimation for PHC could be conducted in an integrated fashion, producing budgets meant to cover a basket of services rather than allocations that simply sum separately computed PHC and HIV components. Second, steps could be taken to effect a fuller purchaser-provider split, either at the national or provincial level. In this case a defined package of PHC benefits could be purchased from both public and private providers. If a separate purchasing agency or Fund were established, this approach would approximate Scenario 5. Third, provinces could expand contractual relationships with private providers, building on the experience of Mpumalanga’s service level agreement with Right to Care for the delivery of a comprehensive set of PHC services, including for HIV.

Implementation and pathway to NHI

Scenario 4 would require several key short-run steps. The National and Provincial Departments of Health would need to develop tools to estimate combined resource needs for HIV and other PHC services. The work of the PHC Costing Task Team, jointly convened by NDOH and NT, could provide useful insights. Additionally, the national government would need to determine how to appropriately adjust the PES allocation formula and reflect the changes in the annual DORA. This would first require determining with reasonable accuracy how much is currently being spent on PHC. Finally, NT and NDOH would need to modify the HIV CG mechanism to govern planning, tracking, evaluation for PHC service delivery and outcomes. In turn, public financial management and health information systems would be updated to enable relevant tagging and tracking of PHC spending and outputs. Reporting could follow the same monthly and quarterly schedules as are currently in place for HIV.

BOX S4.2. PUSHING FUNDS TO THE DISTRICTS.

In the spirit of the NHI White Paper (2015), Scenario 4 could involve more ambitious governance reforms. In particular, the conditional grant mechanism could be modified to endow districts with more direct responsibility for business planning, budgetary oversight, and management of service delivery. In turn, provinces would assume more of a support and advisory role focused on building local capacity. Once funds were transferred to districts, the key financial relationship would then be between them and facilities. They would thereby mimic the role of District Health Management Officers (DHMOs) envisaged in the White Paper (2015) and begin developing the service delivery management capacity that will be necessary under NHI. Depending on the purchasing arrangements that accompany ring-fenced integration, the districts could also become custodians for the funds transferred to facilities in accordance with new contractual arrangements. Alternatively, they could help to facilitate the negotiation and monitoring of those contracts in coordination with the national purchasing agent, while facilities themselves would require the necessary structures (e.g., bank accounts) and legal authority to receive and manage funds directly.

Source: National Treasury (2015a).

Ring-fenced integration could serve as a prelude to multiple NHI structures, including the centralized system proposed by the White Paper (2015). This scenario would draw additional health funds under stringent national oversight, a small step toward an NHI Fund that consolidates spending under direct control of the national government. It would also promote decision making about what PHC and HIV services will be financed by a large, integrated conditional grant. These choices would provide a useful foundation for the eventual definition of an NHI benefits package, as would efforts to more rigorously cost PHC services. Notably, this scenario would not necessarily imply that provinces would no longer be directly responsible for service delivery and reporting. In fact, like Scenario 3, this scenario could also precede a more devolved approach to NHI in which each province manages its own Fund. It bears

repeating that this would be a major departure from the NHI White Paper (2015). However, to move the health system toward the White Paper (2015)'s vision, there are additional reforms relating to the role of districts that could be pursued in conjunction with the creation of a large PHC CG. In particular, this would involve a single, centrally managed Fund whose purchasing arrangements with providers were intermediated by DHMOs rather than PDOHs.

Impact on health system performance

Effect on the HIV response

Given that strict conditionality or ring-fencing would be maintained and this scenario would not necessarily envisage relaxing the stringent HIV CG planning, tracking,

and reporting requirements associated with financing and service delivery, the HIV planning and monitoring systems would be expected to persist. Integrated financing could help make the programme more efficient and help to enhance service delivery volumes for comparable total costs. The performance of HIV programmes should also not suffer because targets for all PHC services would be defined and monitored in detail. The stringency of conditionality would remain high even as the scope of services financed via conditionalised funds is expanded.

However, the specifics of the new CG mechanism would determine any risks to the HIV response. Some external experts raised concerns about dilution of attention to the HIV programme if all PHC services were monitored in the CG framework.²¹ For example, even if all existing conditions were left in place, the addition of new reporting requirements for PHC might lessen attention focused on HIV services. Consequently, in this scenario NDOH would need to take care to sustain its current level of scrutiny of all HIV reports and outcomes. The fact that HIV and PHC oversight are currently housed in separate NDOH directorates could also help to protect against dilution of attention.

Additionally, there could be trade-offs between allocative efficiency and the HIV response. If provinces and districts began managing integrated PHC budgets, they might shift some funds previously intended for HIV to other PHC services. Even if the new allocation were more efficient, overall HIV spending—and associated outputs and outcomes—could decline. Consequently, **depending on the design**

and implementation of the new CG mechanism, this scenario's effect on the HIV response could be minimal (Ø) or potentially unfavourable (-).

Effect on PHC services

Given the lack of explicit resource needs estimation, budgeting, tracking, and reporting for PHC financing, perspectives from NDOH managers and other informants indicate the public sector's PHC programme could be strengthened greatly from improved programme management. As mentioned above, the conditional grant framework has been essential to scaling up and delivering the HIV programme such that service delivery and financing targets can be adequately measured and monitored. Hence, the effect of extending similar conditionality to the PHC programme could be highly positive. Integrating and ring-fencing HIV and PHC financing will improve the planning, tracking, and monitoring of PHC spending and service delivery, likely driving increased PHC access and quality (++).

Effect on health system efficiency

The HIV CG has been instrumental in making South Africa's HIV response targeted, accountable, and successful at resource utilization—Scenario 4 would extend these benefits to PHC services more generally. By pooling all PHC funds in a single CG, ring-fenced integration could generate economies of scope in programme management, including business planning, expenditure tracking, and performance monitoring. Additionally, it could enable more efficient allocation of resources across all of PHC, including HIV, by giving provinces, districts, and facilities greater flexibility to deploy health care workers, facility space, and other service inputs

²¹ These expert views were raised during the discussion period of the presentation cited as Blanchet & Chaitkin (2015).

optimally. A separate process for determining which PHC services to fold into the CG, and in what sequence, would also be important to allocative efficiency. Such a priority-setting process would go well beyond simply creating the expanded PHC CG.

Meanwhile, whether this scenario would promote technical efficiency would depend on other factors. Several informants expressed concern about the general lack of value for money in PHC. However, data collected during the development of a normative budgeting tool in Limpopo suggests that, to meet established PHC service standards, facilities may need to spend even more on PHC (Rockers, 2015). In fact, more rigorous costing of PHC services might produce a baseline resource needs estimate considerably greater than current expenditure. High costs may be attributable in part to the government's wage bill. Whether outcomes would improve as a result of increased PHC expenditure would depend on a number of management and other factors.

There could be opportunities to incentivize more technical efficiency and higher quality care at the facility level through well-designed purchasing policies. For example, the White Paper (2015) proposes capitation for PHC; piloting such an arrangement alongside ring-fenced integration would be a useful means of exploring potential efficiency gains. Ultimately, **much of Scenario 4's likely effect on health system efficiency is uncertain (?), though there is reason to expect at least some modest gains (+).**

Feasibility

Legal feasibility

The legal feasibility of ring-fenced integration would depend largely on whether the government sought to shift PES funds or only

add new money to a PHC CG. For the former, reserving sufficient funds from the PES would require reducing the share of government revenue allocated through the PES. Such a change might invite legal challenges, even if the National Health Act of 2004 were also amended to reflect changes in national and provincial responsibilities with respect to health services.

Alternatively, if new funds for PHC were added incrementally to a PHC CG, there would be lesser risk of legal challenge, and no major legislative changes would be required. Although moving funds out of the PES allocations would be difficult, the government has far greater flexibility for channeling new money to the health sector. For example, a fraction of the resources needed for PHC could be added to the CG during each of the next several MTEF processes. Concurrently, planning, tracking, and reporting requirements for PHC would be gradually incorporated into the conditional grant framework. This way, an integrated pool for PHC and HIV services would develop without diverting funds from the PES. In practice, considerable analysis would be required to determine which PHC services, and in what sequence, should be financed through the CG. Therefore, **the legal feasibility of ring-fenced integration ranges from medium to high depending on the details of implementation.**

Political feasibility

The legal reforms or innovations pursued under Scenario 4 will also shape the political economy dynamics. First, several aspects of ring-fenced integration would likely appeal to NDOH. This scenario would give more control over health funds to NDOH by extending conditions to PHC financing. It would also preserve extensive protections **and accountability** for HIV funds. To the extent that integration were accompanied by additional preparatory steps for NHI,

such as experimentation with purchasing arrangements, this scenario would also involve useful, incremental steps toward NHI implementation. In fact, Scenario 4 is one of only two scenarios—the other being the more ambitious Scenario 5—that are likely to appeal to the HIV-, PHC-, and NHI-focused constituencies within NDOH.

NT, on the other hand, may be wary of creating a massive PHCCG and rechannelling a significant share of PES funds. Even at our conservative estimate of R55 billion, a PHC CG would dwarf the largest current grant, which will allocate around R20 billion for human settlements in FY 2016/17. Historically conditional grants have been designed to temporarily supplement provincial budgets to enable scale-up of priority programmes. In contrast, channeling more than a third of the total health budget through a conditional grant would mark a radical repurposing of this budgetary mechanism.

These concerns aside, recently NT expressed openness to ring-fenced integration if it can facilitate piloting of strategic purchasing arrangements for HIV and other services and if it is designed as an intermediate step toward the creation of the NHI Fund. In fact, the stringency of national control over conditional grant funds makes the HIV programme a prime candidate for purchasing pilots. Moreover, given that NHI may eventually cover a comprehensive package of PHC benefits that include HIV services, piloting purchasing of a blend of HIV and other PHC benefits might be even more appealing.

While national officials might be supportive of, or at least open to, Scenario 4, provincial officials might object. First, provincial legislatures would likely oppose any reduction in PES funds, which are completely discretionary. Folding PHC financing into a conditional grant would preclude reallocations to other sectors,

such as education, or other uses. Adding new funds to the CG rather than shifting PES would preclude some of these concerns. Second, this scenario would complicate the jobs of provincial health officials, who would have to assume additional responsibility for planning and monitoring financing and service delivery for PHC. This could be quite onerous given how little capacity currently exists to track PHC spending, particularly in settings where both PHC and other services are delivered (e.g., district hospitals). Additionally, conditional grant funds could be pulled back for a variety of reasons, such as when the provinces violated conditions on the use of those funds, were unable to spend them within the financial year, or if the function associated with the financing were moved elsewhere. Provinces would have to perform and report according to national standards to ensure a continuous and adequate flow of funds.

Nonetheless, some provincial health officials might welcome ring-fencing for PHC funds. HIV programme managers have indicated how valuable the conditional grant is in shielding HIV funding from competing provincial priorities and in improving their planning and management of HIV services; it is reasonable, therefore, that local PHC managers might similarly support similar protections for their budgets. In light of mounting interest in this scenario and its potential variants at the national level, and with an expectation of divided interests at the provincial level, **the political feasibility of ring-fenced integration ranges from medium to high depending on whether funds are shifted from the PES or only new funds are added to a PHC CG.**

Technical feasibility

Scenario 4 would require expansive scale-up of costing, budgeting, tracking, and monitoring competencies related to PHC. Under the current HIV CG mechanism,

these skills and capacity have been developed over almost a decade at the national and provincial levels. These activities would remain necessary under ring-fenced integration, so for HIV this scenario is highly feasible. However, this capacity would also need to be developed for PHC services because there is currently no conditionality for their management, apart from the regular PFMA requirements. PHC managers and finance officers would need to acquire the same routine skills and tools applied currently by HIV managers, such as identifying and costing PHC needs, planning service delivery scale-up, managing budgets and expenditure, and submitting detailed quarterly reports.

In addition, resource needs for PHC are currently not well understood or researched generally. Efforts are underway to cost PHC services, including both top-down and facility-based analyses by members of the NT-NDOH PHC Costing Task Team.²² One important challenge is the lack of sufficient tracking systems to determine the extent of PHC service delivery at district hospitals. For instance, the illustrative allocations in this study somewhat arbitrarily include 25 percent of spending (see footnote 6). Therefore, investments in better information systems and public financial management practices would be required to effectively extend the conditionality of the HIV CG to all PHC services. Fortunately, these investments would also yield dividends for an eventual NHI system.

Similarly, the current HIV CG has required a strong monitoring and evaluation system and has thus developed the ability of provinces both to monitor the performance of service providers and to report these

to the national sphere. These skills and systems would have to be extended to PHC services, and effort would be required to develop appropriate PHC indicators and expand the systems to collect them, as well as for provinces to report on them routinely. The general foundation provided by existing systems for HIV and nascent PHC costing efforts means that although considerable new capacity would need to be developed, the road forward is both clear and manageable. **Therefore, the technical feasibility of Scenario 4 is medium.**

Scenario 5: National PHC Fund – an ambitious start for the NHIF

Financing mechanism

Under Scenario 5, the NHI Fund would be established first as a National PHC Fund with a large pool of resources to purchase an integrated package of PHC benefits, including for HIV prevention, care, and treatment services. The Fund would be administered at the national level as a separate legal entity from NDOH. There would be at least two possible approaches to creating such a Fund:

1. All PES funds currently spent on PHC, the small NHI CG, and the portion of the HIV CG that covers personal HIV services could be redirected to the new Fund. Like in Scenario 4, the share of national revenue distributed via the PES would be probably be reduced, as likely would be the share of PES funds allocated to health by provinces.

²² Participants include the University of KwaZulu-Natal, Clinton Health Access Initiative, DNA Economics, Insight Actuaries, Right to Care, and the USAID-funded Health Finance and Governance Project.

2. More incrementally, the NHI CG and most of the HIV CG could seed the new Fund (akin to Scenario 2), and new funds to cover other PHC services could be added over time.

In either case, the fate of financing for non-personal HIV services—roughly 12 percent of the HIV CG—might be different from that of financing for personal services. We analyse the implication of integrating these funds into the PES, from which provinces draw resources for other non-personal health activities. Instead, those resources could also be shifted to the new Fund, which would then be responsible for financing activities like SBCC and demand creation for condoms and MMC. Another alternative would be to retain those funds in a small CG, as we consider in Scenario 2.

Rationale

Integrating financing for HIV and other PHC services could reduce inefficiency in South Africa's current health financing and service delivery systems. Unified pooling of funds could reduce the need for duplicative administrative, management, and oversight capacity across programme areas. Redundant programme management resources (e.g., personnel, reporting processes) could be redeployed to develop new competencies in the NHIF and DHMOs. Scenario 5 could also enable strategic purchasing of a defined benefits package, as envisaged by the NHI White Paper (2015). Strategic purchasing of PHC services, for instance via capitated payments to providers, would effect greater integration of service delivery, promote optimized utilization of capacity in community clinics and health centres, and help to reducing inefficient facility-level spending currently encouraged by the ring-fencing of HIV funds. Finally, pooling

funds in the NHIF would sustain, albeit in a reconfigured fashion, the protections for HIV funds afforded by the CG mechanism. This would ensure sufficient resources continued to be allocated to meet HIV-related targets, while also extending a form ring-fencing around the rest of PHC funds.

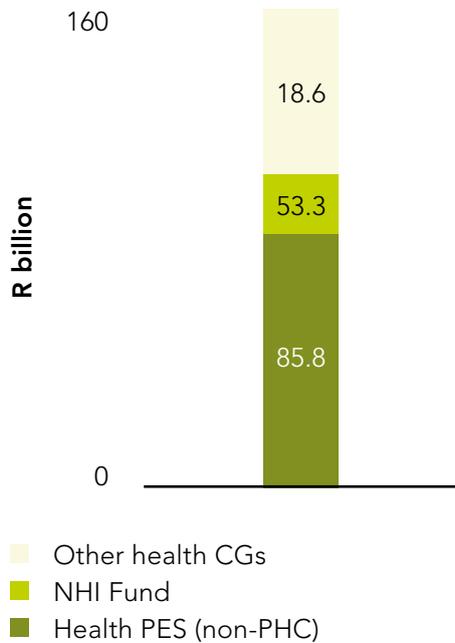
Detailed description

Pools of funds

Figure A2.5 depicts the potential pools of provincial health sector funds in FY 2016/17 with the creation of a National PHC Fund. Under this scenario, three existing pools of money could be combined to seed the NHIF. First, the small NHI CG could be transferred to the Fund. Second, nearly 90 percent of the current HIV CG could also be transferred to the NHIF, representing the personal preventive, care, and treatment services the grant currently covers. The remaining HIV CG funds, which currently cover public health activities like condoms procurement and distribution, demand creation for MMC, and special programmes for key populations and high-transmission areas, could be shifted to the PES (as in Figure A2.5) or retained in a small CG or another ring-fenced pool (e.g., a dedicated line item in the NHIF budget). Finally, money currently spent on PHC could be diverted from the PES into the NHIF. In FY 2016/17 this policy would shift one-third (R53.3 billion) of total provincial health budgets to the NHI Fund. The remaining two-thirds would continue to flow to provinces through the PES (R87.6 billion) and the remaining CGs (R18.6 billion), covering secondary and tertiary services, health worker education and training, facilities revitalization, and more.

F. A2.5 ILLUSTRATIVE ALLOCATION OF FUNDS IN FY 2016/17 FOR SCENARIO 5 (R BILLION).

Illustrative allocations in FY 2016/17



Sources: National Treasury (2015b, 2016).

Governance of HIV funds

Scenario 5 would entail significant changes to the distribution of responsibilities across levels of government. Not only would the NHIF—a centrally managed organization—assume the purchasing functions for PHC, but the government-financed system would eventually also include a purchaser-provider split for the first time (as in Scenario 2). NDOH would set policy and quality standards by which providers would be accredited for NHIF payment eligibility. In turn, DHMOs would negotiate

with the Fund and manage PHC service delivery contracts, including for HIV services, with providers in the both the public and private sectors. These contracts would need to be developed on the basis of adequate data collection systems to track service delivery outputs and outcomes and the financial performance of provider organizations. The role of provinces in this scenario would be less clear; the NHI White Paper (2015) suggests PDOHs may support managers and monitor and evaluate service provision.²³

The accreditation and payment systems implied by the creation of the NHIF could enable significant oversight and accountability, albeit quite different from the current system. First, accreditation for NHIF payment eligibility would be a critical initial check on capacity and quality. PHC providers would have to demonstrate readiness to deliver all services in the benefits package in accordance with quality standards, both established at the national level. Second, the country’s HMIS would be improved to enable continual monitoring of service delivery and patient outcomes. Providers excelling in meeting quality standards and coverage targets could be rewarded with performance-based payments on the basis of HMIS data, while poor performers could be targeted for support or ultimately sanctioned. Like scenario 2, this scenario would also open the door to demand-side checks on quality. For example, published performance data could inform patient choice of provider, at least in areas with multiple options.

Purchasing of services

Establishing a National PHC Fund would enable a shift from input-based to output-

²³ Paragraph 314 in the NHI White Paper (2015) refers only to the Department of Health without specifying whether these functions are to be fulfilled by the national or provincial sphere, or both.



based payment for PHC services, as well as a purchaser-provider split. The transition would involve considerable changes to public financial management systems and capacity building in facilities and districts to negotiate service contracts and optimize service delivery input to fulfill those contracts. One key precondition for purchasing would be the simple mechanics of transferring money from the NHIF to providers, which itself would require all providers to have bank accounts into which the funds could flow.²⁴ Enabling such transactions would be but one of many important steps toward establishing a purchasing system. Others would include determining appropriate payment mechanisms, which could include capitation, case-based payments, global budgeting, fee-for-service, and others.

The NHI White Paper (2015) proposes a blend of capitation and performance-based payments for PHC services. Other mechanisms could also be desirable. For example, while capitation might promote efficient delivery of PHC services in general, a separate fee-for-service payment could be useful to reward providers for large volumes of one-off preventive activities like MMC.

Implementation and pathway to NHI

Creating a functional NHIF capable of strategic purchasing would require several years of capacity building and preparation at all levels of the health system. Legislation to establish the NHIF and its governance would need to be passed, and the annual DORA would need to alter how much revenue flowed through the PES. Concurrently, several thousand PHC

facilities and their associated DHMOs would need to prepare for their new financial management responsibilities. This might mirror the proposed shadow budgeting process to prepare the country's 10 national hospitals for DRG payments, though on a much larger scale. High-performing Ideal Clinics would be a natural starting point for developing the relevant financial management capacity and practices, which could then be replicated in all other clinics. In the interim, and akin to Scenario 4, the NHIF could operate as a large PHC conditional grant with direct transfers to provinces and districts for their respective functions, as described above.

In the long run, this scenario would be a clear step toward a comprehensive NHI system, and a National PHC Fund may fit well the concept of a Transition Fund mentioned in the White Paper (2015). Once the PHC benefits package were established and the NHIF were operational, steps could be taken to incorporate secondary and tertiary services into the scheme. This would require expanding the scope of the benefits package and consolidating additional funds in the NHIF, including remaining DOH conditional grants and eventually the rest (or almost all) of health-related PES funds. For purchasing, this scenario would align with the NHI White Paper (2015)'s proposals for provider payment. Section 8.5.1 (paragraph 351) lays out a gradual process of incorporating risk adjustment into determining the PHC capitation rate, eventually "taking account of the epidemiological profile of the catchment population." Scenario 5 might require starting with separate payments for PHC and HIV services until the latter could be folded into a risk-adjustment formula for the former.

²⁴ Providers could receive payments directly, or DHMOs could receive funds and manage or distribute them on behalf of individual facilities.

Impact on health system performance

Effect on HIV response

An NHIF focused on PHC would cover a range of services, including personal HIV preventive, care, and treatment services. The NHIF would represent a protected pool of funds dedicated to PHC but not specifically HIV; however, its contractual and performance management arrangements with districts and providers could enable extensive monitoring and accountability for HIV care. Certain payment arrangements, like capitation, could encourage underprovision of services,²⁵ though these incentives could also be counterbalanced with complementary performance management and oversight mechanisms. Additionally, if the Fund contracted with private providers, the available capacity for and quality of HIV services could increase. However, cost containment could become a concern in the private sector, depending on how reimbursement rates were determined and adjusted.

The vitality of non-personal HIV services might be less certain under Scenario 5. Alongside full integration of financing for personal HIV services into the Fund, this scenario proposes giving provinces full responsibility for public health-oriented activities, such as condoms distribution, programmes in high-transmission areas, demand creation for MMC, and more. The default option would be to blend the associated funds into PES allocations, removing the oversight mechanisms of the current CG framework. Such activities could still be included in the non-negotiables and subject to a form of earmarking. Alternatively, a variant of Scenario 5 could retain the non-personal services portion of the CG funds in a ring-fenced mechanism for management at the provincial level with significant oversight by NDOH. This could be a very small CG, as in Scenario 2, or a protected set of line items within the NHIF's budget.

Two additional NHI design choices could affect access to HIV services. First, coverage would depend in part on NHI enrollment processes, in particular whether HIV patients would be automatically enrolled and whether enrollment would be required to access HIV services. Second, and related, coverage could be affected by NHI cost-sharing provisions, including the need for enrollees to contribute premiums or co-payments in order to access care. Encouragingly, paragraph 146 of the NHI White Paper (2015) states that "NHI card holders will not be expected to make any out-of-pocket payments such as co-payments and user fees at the point of health care delivery." If this approach prevailed, universal enrollment of people living with HIV would be essential to ensuring equitable access to HIV services, but cost sharing should not pose any obstacles.

Scenario 5's effect on the HIV programme would depend on a number of additional policy choices. It would be reasonable to expect continued planning, resource allocation, and monitoring for essential HIV services (as under the current HIV CG), though the fate of certain population-level prevention activities might be less certain. Integrated PHC payments (e.g., capitation) may also divert funds previously intended for HIV to other PHC services. Provider contracts would require complementary mechanisms for enforcing accountability for HIV-related outputs and outcomes. Moreover, NHI design choices about enrollment procedures could affect access to HIV (and other) services, at least for certain populations. Therefore, **Scenario 5's effect on HIV services would uncertain (?) and possibly unfavourable (-)**, though there would also be some potential for improved capacity, quality, and efficiency of HIV service delivery.

Effect on health system efficiency

Creating a National PHC Fund would eliminate the need for parallel planning and monitoring

systems for HIV and other PHC services, but it would also require substantial investment in building the Fund's capacity to manage contracts and issue payments, as well as the ability of districts and facilities to manage funds and service delivery. These would require additional personnel and systems. In theory, savings could be realized in a handful of ways. First, the government is already designing an evidence-based approach to defining and modifying the NHI benefits package. By focusing on preventive and cost-effective services (i.e., allocative efficiency), the government could reduce costs across the system. Second, NHI payment policies could be designed to incentivize improved technical efficiency at the facility level. Policy makers noted two main options: (1) a robust facility-level performance management system within the existing input-based budget financing arrangements; or (2) performance-based payments built into active purchasing if a purchaser-provider split is implemented. The extent to which payment policies would influence clinical behaviours would depend in large part on whether the government can tie health care worker compensation to performance. There would also be an important role for improved management structures and practices. **Due to the many additional factors that would determine how efficiently a PHC-HIV insurance scheme will operate, the relative efficiency of Scenario 5 is uncertain (?),** though there certainly would be potential for efficiency gains if necessary capacity were built and payment policies were well designed.

Feasibility

Legal feasibility

Establishing a National PHC Fund would require legislation amending the National Health Act of 2004 to create the Fund, its governance structure, and the process

by which the benefits package would be defined and modified over time. The policy design process would likely be protracted. The NHA 2004 was based on a White Paper published in 1997. If the NHI timeline were similar, authorizing legislation might not emerge for another 5–7 years. Because the scenario requires major legislative changes, some of which would be difficult to achieve in the next three to five years, the legal feasibility of this scenario is low to medium.

Political feasibility

With respect to political feasibility, Scenario 5 would likely be supported by those stakeholders keen on the realization of the government's NHI vision. Consequently, NDOH is likely to strongly support this scenario. However, the timing and pace of implementation would determine to what extent NDOH and its various internal constituencies favoured this ambitious approach over a more incremental step like Scenario 2 or 4. For instance, the HIV division might be wary of any financing integration that undermined or complicated the setting of ambitious national treatment and prevention targets to which provinces (or districts and providers) could be held accountable. Provincial HAST Directors and HIV advocates might share this view. An additional concern could be the fate of HIV-related public health activities currently funded by the CG, such as activities for high-transmission areas, demand creation for MMC, condoms distribution, and more. To be fully integrative, Scenario 5 proposes folding the relevant funds into PES resources, which could jeopardize the programmes unless NDOH included them among the non-negotiables and successfully enforced compliance. Alternatively, funds for these activities, which account for about 12 percent of the HIV CG, could be retained in a small CG or a nationally controlled pool, such as a dedicated line item on the NHIF's budget.

The extent to which provinces would resist greater centralization of the health budget is unclear. PDOHs might view such reform favourably if it entailed an increase in resources available to them, but with a fixed resource envelope for health, both Provincial DOHs and Treasuries might oppose any effort to reduce their financial autonomy.

The NHIF could imply a new approach to performance management, either within the current labour arrangement or under a refashioned system that involves performance-based financing. In either case, facility and district managers would need the training, systems, and authority to manage their personnel and make staffing decisions according to service delivery needs and efficiency objectives. Public-sector employees are likely to oppose—strongly—reforms that endanger job security or the guaranteed salary and raise schedules that have been negotiated with the government.

In summary, this scenario could enjoy fairly strong support at the national level but might invite caution from provincial authorities and HIV advocates. Labour unions might strongly oppose it. Therefore, the **political feasibility of this scenario is medium.**

Technical feasibility

Implementing a National PHC Fund would require considerable new financial management and performance monitoring capacity. As noted above, many basic reforms would be required to enable a purchaser-provider split and simple financing transactions between the NHIF and providers. In addition to creating new mechanisms for transferring funds and designing payment mechanisms, capacity in the form of trained managers

and information systems would need to be built at multiple levels of the health system. Facilities would need personnel capable of managing budgets and service delivery inputs, while NDOH would need to define a PHC benefits package whose cost informed the pricing of contractual agreements between the NHIF and providers. Moreover, there is currently no standardized system for establishing or enforcing PHC service targets, so the HMIS would need to be modified to track PHC outputs and outcomes, and health care workers and data capturers would need training to document relevant clinical data.

Some of this capacity could be built atop existing systems developed primarily for HIV services. The CG framework entails extensive business planning, resource needs estimation, and performance monitoring for HIV services. These practices could be extended to the rest of PHC and ingrained at the facility level under an NHI system. The non-negotiables might also be a useful basis for more robust reporting on PHC spending. Finally, some efforts are underway to better understand the costs of PHC service delivery and integrated HIV care; this research would need to accelerate.

Despite applicable capacity in the current system, Scenario 5 would require substantial investment to capacitate a new Fund, districts, and providers for more active purchasing of PHC services. Some implementation steps would be potentially straightforward, such as setting up provider bank accounts, while others would require considerably more time and effort, such as training a large cadre of facility-based financial managers. In recognition of the magnitude of the capacity building effort that would be needed to launch the NHI system, even if just for PHC, the **technical feasibility of this scenario is low when considering a three- to five-year timeline.**

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INTEGRATION OF HIV PROGRAMMES WITH HEALTH SYSTEMS EN ROUTE TO UHC AN ANTICIPATORY ASSESSMENT FRAMEWORK

Produced by: Scenarium Group GmbH - APW with UNAIDS 2016/637365



An anticipatory assessment framework

**MICHAEL THIEDE,
NINA BALTES**

Abbreviations

AIDS	Acquired immune deficiency syndrome
ART	Antiretroviral treatment
ARV	Antiretroviral drug
CCM	Country Coordinating Mechanism
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CEMED	Central Monitoring and Evaluation Department Malawi
DALY	Disability adjusted life year
ERG	(UNAIDS/World Bank HIV) Economics Reference Group Gender Development Index
GDI	Gross Domestic Product
GDP	Global health programme
GHP	Gender Inequality Index

GII	The Global Fund to Fight AIDS,
Global Fund GNI	Tuberculosis and Malaria Gross National Income
HCT	HIV counseling and testing
HIV	Human immunodeficiency virus
HRH	Human resources for health
ICT	Information and communication technology
IDU	Injection drug user
LGBT	Lesbian, gay, bi-sexual, transgender
M&E	Monitoring and evaluation
MSM	Men who have sex with men
NAC	National AIDS Commission
NASA	National AIDS Spending Assessment
NGO	Non-governmental organisation
NSP	National strategic plan
PEPFAR	President's Emergency Plan for AIDS Relief
PES	Provincial equitable share (South Africa)
PHC	Primary healthcare
PLWHA	People living with HIV/AIDS
SDG	Sustainable Development Goal
STI	Sexually transmitted infection
TB	Tuberculosis
UDHR	Universal Declaration of Human Rights
UHC	Universal health coverage
UNAIDS	Joint United Nations Programme on HIV/AIDS UNDP United Nations Development Programme VCT Voluntary counseling and testing
WHO	World Health Organization
WLHIV	Women living with HIV

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Executive summary

1. Globally HIV programmes have matured and demonstrated remarkable positive effects. Beyond the positive health impact of these programmes at country level, they have contributed to substantially improving structures of service provision, such as health service delivery through well-trained personnel. Yet the fragmentation brought about by vertical programmes within countries may preclude the development of efficient universal health systems. Parallel systems of health service provision as well as related parallel financing and information systems have often been created outside of the general national health systems. The need for more effective integration at the levels of policy, governance, financing, research and service delivery has been highlighted in the global health discussion. Universal health coverage (UHC) forms a target under the health goal of the Sustainable Development Goals (SDG) and represents the desired outcome of health system performance, whereby a country's population is collectively covered against the direct and indirect costs of illness. In practice, UHC as a critical component of the SDG agenda provides a platform for an integrated approach within the health sector.
2. The aim of this study is to provide a framework for decision-making and strategy planning around the integration of HIV programmes in different contexts. The study discusses the integration of HIV programmes with the broader health system in the light of the UHC objective. It is based on the premise that integration is not an objective in itself. The aim of the exercise is to provide a framework for decision-making around integration in different contexts. The study focuses exclusively on the *vertical* integration of HIV programmes with a broader health system rather than at the *horizontal* integration, i.e. merger, of an HIV programme with a different vertical programme, e.g. a TB programme.
3. The featured typology is derived from an initial conceptual framework, an "anticipatory assessment framework", which again is informed by the literature around integration. This typology groups cases according to certain characteristics. The framework that distinguishes domains (financing, delivery, coverage and governance), dimensions below the domain-level, and contextual parameters feeds into a typology that may serve different purposes:
 - Supporting assessments of the appropriateness and feasibility of the integration of a vertical programme in a specific country context as well as the health system's preparedness;
 - Guiding the design of a monitoring framework for concrete integration projects across different domains at the system level;

- Informing decision-makers' choice of an integration strategy, including the development of a time path, in any health reform context.

A typology matrix derived from the framework reflects the domains of relevance for the integration of HIV programmes into the health system. For demonstration purposes, the matrix has provisionally been populated with indicators and observation areas. Observation areas are thematic areas from which specific and measurable indicators will be derived, depending on the objective of the assessment in question. The objective may for example be a comparison or benchmarking of countries at different stages on the path of integration.

4. The study refers to six case study countries: Ghana, Jamaica, Kenya, Malawi, South Africa, and Thailand. The countries' HIV programmes represent different degrees of integration. The countries' health systems are at different stages of progress towards UHC. Different types of data and information from the case study countries are used to illustrate aspects of the typology, particularly regarding the context determining the respective integration processes. Brief country profiles are provided in the Annex.
5. The discussion section argues that while integration is not a prerequisite for achieving the UHC objective, integration of programmes as elements of a comprehensive health system may facilitate the achievement of UHC. The incorporation of HIV and AIDS-related health services into a country's broader structures of health services provision contributes to the idea of a common benefit package within the system that is as comprehensive as possible given the resource constraints that apply. Integration puts the respective

services in direct competition with all other services, as they will be subject to the same regulatory framework, e.g. regarding their status within the benefit package that may be designed based on institutionalised priority-setting mechanisms. Further aspects support the UHC goal: Once integrated, capacity development around these services would more immediately benefit the wider system, for example.

6. Domain-specific integration pathways are at least partly interlinked and require structured and coordinated planning. The report highlights determinants of the integrability of HIV services and financing with national health systems. Certain prerequisites need to be in place, including, for example, an appropriate M&E regime. The typology matrix can guide the planning process. Integration requires a phased approach.
7. The prerequisites and the risks of integrating HIV programmes differ significantly between countries. There are country cases where—within the financing domain—integration at the level of resource mobilisation and pooling will be recommendable as an important step towards achieving UHC, but purchasing and service delivery may have to explicitly account for existing access issues relating to key populations and may therefore defy integration at the current stage. In this context, the role that NGOs play in the provision of services to key populations, for example, needs to be carefully considered in a country's integration strategy. Furthermore, funding of services for key populations from domestic funds poses an area of concern in some countries as donors reduce their funding.
8. In conclusion, the typology can help structure a knowledge base around the integration of vertical programmes.

The compilation of such a knowledge base must take into account that there are lessons to be learnt from vertical programmes that must not get lost in the context of integration, e.g. around well-functioning procurement systems. The typology framework ought to form the basis for the development of systematic guidelines for integration in order to ensure that the integration strategy fits the objectives of integration, e.g. the removal of redundancies, and the setting. In countries that embark on the integration of HIV programmes with

the broader health system, rigorous strategic planning processes need to be initiated. The typology will guide benchmarking as well as monitoring and evaluation. The details of integration must be discussed and spelled out. An international discussion using case studies of integration as far as available should inform a toolkit for designing and implementing country-specific integration processes. The discussion of the role of integration in a country's health system is an important contribution to the post-2015 mainstreaming of UHC.

1. Introduction

HIV/AIDS is among a small set of infectious diseases that has contributed significantly to the global burden of disease. The fight against the most prominent of these diseases has received major support from the international community since the early 2000s and global health programmes (GHPs) have been the main drivers of international action to address these significant contributors to the global disease burden. A major part of the support given to these global health initiatives went towards the design and support of vertical programmes.

Among these vertical programmes, HIV programmes take on a pronounced role in many countries due to their sheer size and the involvement of multiple national and international stakeholders. Thankfully, HIV programmes have had significant positive effects on the health of the communities they serve, and beyond the positive health impact of the programmes at country level, they have also contributed substantially to improving structures of service provision such as health service delivery through well-trained personnel.

Despite such remarkable results of vertical programmes, "verticality" has also been subject to certain criticism. The division of global health initiatives according to disease-based expertise is most probably not efficient. Moreover, the fragmentation brought about by vertical programmes within countries may preclude the development of efficient universal health systems. Parallel systems of health service provision as well as related parallel financial and information systems have often been created outside of the general national health systems, often neglecting alternative, equally effective, approaches to tackling the diseases. The need for more effective integration at the levels of policy, governance, financing, research and service delivery has been highlighted in the global health discussion (Atun et al., 2010a, 2010b; Storeng & Béhague, 2016).

While globally HIV programmes have matured and demonstrated dramatic positive effects, the goal of universal health coverage (UHC) has gained influence in global health policy and on discussions around the design and role of HIV programmes at the national level. UHC forms a target under the health

goal of the Sustainable Development Goals (SDG) and is defined as the desired outcome of health system performance, whereby a country's population is collectively covered against the direct and indirect costs of illness. In practice, UHC as a critical component of the SDG agenda provides a platform for an integrated approach within the health sector (WHO, 2015). The services covered—promotion, prevention, treatment, rehabilitation and palliation—are defined on the basis of a benefit package that is the same for everyone. On the financing side, fragmentation will be minimised and resources pooled to the largest extent possible. For this, it is important to understand the forms and stages of development of health financing systems towards UHC in order to suggest appropriate modes for defragmenting and then integrating HIV financing in this context. To clarify: Full integration would imply that funds from all sources, including donor funding for HIV, are pooled and that there are common channels for allocating these resources.

This study discusses the integration of HIV programmes in the light of the UHC objective. It is based on the premise that integration is not an objective in itself. The aim of the exercise is to provide a framework for handling the decisions around integration in different contexts. The study focus lies with the *vertical* integration of HIV programmes with a broader health system rather than the *horizontal* integration, i.e. merger, of an HIV programme with a different vertical programme, e.g. a TB programme.

Integration does not necessarily need to refer to all aspects of a programme. It can be limited to certain components or aspects of the programme. When it comes to particular organisational functions of a programme, such as financing, or service provision, we refer to domains of integration.

A typology can significantly improve the communication around a phenomenon. In this paper, we present a “tangible” typology that is derived from an initial conceptual framework, an “anticipatory assessment framework”, which again is informed by the literature around integration. This typology groups cases according to certain characteristics. The framework that distinguishes domains, dimensions below the domain-level, and contextual parameters feeds into a typology that may serve different purposes:

- Supporting assessments of the appropriateness and feasibility of the integration of a vertical programme in a specific country context as well as the health system's preparedness;
- Guiding the design of a monitoring framework for concrete integration projects across different domains at the system level;
- Informing decision-makers' choice of an integration strategy, including the development of a time path, in any health reform context.

In the attempt to clarify often confusing terminology, the process of moving away from direct donor support of HIV programmes and exploring alternative ways of funding them has been labeled transition. As countries graduate from the assistance of major GHPs or see external funding reduced as a result of the reallocation of international funds, donor organisations and governments are interested in the country's “transition readiness”. The integration of vertical programmes into existing health schemes or the general health system is closely associated with transition processes but conceptually different. Transition is of practical relevance here, as it creates an opportunity for integration. Of course, the integration of vertical programmes into the

health system can take place outside of the transition context, but it is this context that adds certain urgency to the discussion around integration.

There is a general consensus that policy makers and other stakeholders should work towards the integration of various vertical programmes and their components into the general health system—as far as this is meaningful in the light of service effectiveness and efficiency considerations (Sweeney et al., 2012), yet the benefit package under UHC should be comprehensive. Efforts to strengthen health systems, increasingly including contributions by programmes funded via global health initiatives, have supported countries on their path towards UHC.

The countries' capacity to fund an increasing share of the national HIV budget is one important objective, and the achievement of UHC is another. Health policy practice shows that there is a complex constellation of determinants of policy success that extends beyond the technical sphere. This report acknowledges that UHC does not merely describe a health financing mechanism, but is the ideal of a well-governed, equitable and sustainable health system that ensures access to a comprehensive benefit package at an acceptable quality for the whole population of a country.

It is critical to distinguish dimensions of progress determinants that are immediately linked to the respective process. Beyond financing, these are the domains of coverage, service delivery and governance. There are also broader spheres of context that determine the respective paths of progress. These include a country's disease burden, as well as its economic and political context. This report provides a detailed description of all identified spheres of determinants and works towards an analytical and operational framework to inform policy options and scenarios.

Over recent years, discussion around the integration of disease-specific health programmes or programmes that emphasise specific interventions into mainstream health systems has remained at a rather theoretical level and has been characterised by polarisation of views and ideologies (Atun et al., 2010a; Shigayeva et al., 2010; Legido-Quigley et al., 2013; Hope et al., 2014). In particular due to a lack of on-the-ground analysis, the debate has not appropriately taken into account the degree to which the provision of HIV-related (preventive and curative) services is already “subsidised” by sources other than dedicated HIV financing, as health service staff take on particular tasks, facility space is provided, etc. Depending on the envisaged design of the process of financing integration and the envisaged arrangements around service provision and purchasing *en route* to UHC, the assessment of integration options and feasibility may differ significantly.

In an era with anti-retroviral therapy widely available in many countries, the potential to change the epidemic into a manageable chronic disease has been made apparent. The conditions and context of HIV programmes and financing are therefore changing. In a dynamic context, forecast becomes a design parameter for the assessment of options for integrating HIV financing into financing for UHC. The fiscal liability that comes with the commitment to the lifelong treatment of people living with HIV (PLWH) is substantial and needs to be considered in the discussion of HIV financing integration (Vasall et al., 2013).

Windows of opportunity arise in the policy reform context that encourage the integration of HIV financing as well as reforms towards UHC—Thailand may serve as an example for both. Socio-economic and socio-political context play important roles in assessing the options for financing integration.

Given that country-level constellations and contexts differ greatly, there is still considerable confusion around the steps to be taken towards integration. The discussion has not yet developed a common terminology. The integration of HIV financing is not a mere academic exercise, it may not even constitute a priority in certain settings; where integration represents an objective, it can most likely be regarded as a medium-term policy project that requires evidence-based planning as well as change management. The capacity and the political will to integrate HIV financing towards UHC need to be captured in the assessment of options and scenarios—and their feasibility.

The development of the typology considers experiences of a range of countries. Six case

study countries serve to illustrate the typology: Ghana, Jamaica, Kenya, Malawi, South Africa and Thailand. The methodological approach towards a typology is challenging, as the framework is meant to reflect two distinct processes: Firstly, the typology should serve as a two-dimensional yardstick with a view to assessing the position on the path towards UHC and with a view to the integrability of HIV/AIDS service delivery and financing; Secondly, the typology should serve to characterise countries that have already integrated HIV treatment and financing by type of integration. Thus, the typology does not question the 'if' of HIV integration; it rather tries to support the decision process around the 'how', 'when' and under 'what' circumstances.

2 Methodology

The initial stage of developing the country typology consisted of a structured literature review with the aim of identifying relevant papers and documents that provide valuable insights relating to HIV integration and UHC in different country contexts and that contribute to designing a conceptual framework. A particular focus lay on papers that offer a systems perspective.

A structured review of peer-reviewed literature was conducted online using the databases Medline, Scopus and EconLit (from 2000). Considering a wide range of aspects of potential relevance to the typology, initial team discussions identified three relevant "concepts" that guided the searches, each covering a specific theme: The first concept broadly linked HIV programmes and the health system perspective. The second concept looked at (programme) integration, including conceptual and methodological approaches with a focus on financing, whereas the third took up the theme of HIV

services. Different search strings were applied within each concept and separate searches focused on the related topic of transition of (global) health programmes. Lastly, literature with a focus on universal coverage and the measurement of countries' progress towards UHC was screened.

After the exclusion of duplicates, two researchers reviewed the remaining documents by title and abstract according to the predefined inclusion criteria in order to identify the literature most relevant to this assignment. The inclusion criteria required that the paper contained the description of a specific (country) case or experience, rather than reflecting a general (normative) piece of work; they required that the paper displayed a health system focus, rather than an exclusive healthcare service focus; The inclusion criteria also specified integration to mean the integration of HIV services or HIV financing from a general health system perspective, rather than the integration of

HIV services with specific non-HIV services. Among other documents that turned out to be important, this narrow approach would have deprived the researchers of relevant insights from the literature concerned with integration of “pairs” of services, such as HIV and reproductive health, HIV and TB, HIV and palliative care (Simms et al., 2012, Joseph Davey et al., 2016).

Given the breadth of the assignment, it was then decided to amend the structured approach by snowballing and purposively selecting literature that served to inform the development of a conceptual framework for an integration typology. Expert interviews were conducted in order to “gauge” the conceptual framework, typology and assumptions. With a view to the framework, further country-level documents and data were analysed from a preselected set of countries. These include Thailand, Jamaica, Ghana, South Africa, Malawi and Kenya. Country-level information was used to refine the conceptual framework and test its plausibility as well as to provisionally populate the typology matrix. The countries were selected to represent a diverse range of scenarios on the basis of which to discuss the relevant domains and dimensions of integration and pathways in the light of the UHC objective. The choice was based on economic indicators such as income level, income distribution as well as epidemiological factors such as HIV prevalence. Socio-

economic and socio-cultural aspects include access of marginalised key populations to health services, i.e. sex workers, men who have sex with men (MSM), people who inject drugs (IDU), transgender people and prisoners.

The typology matrix derived from the framework reflects the core domains of relevance for the integration of HIV programmes into the health system. For demonstration purposes in this paper, the matrix has provisionally been populated with indicators and observation areas. Observation areas are thematic areas from which specific and measurable indicators will be derived, depending on the objective of the assessment in question. The objective may for example be a comparison or benchmarking of countries at different stages on the path of integration.

The literature shows that the key distinction of said domains is between financing and service provision. While mutually independent to a certain degree, these domains would be conceptually linked in the development of a country’s process of planning for programme integration. Similarly, integration is not a prerequisite for achieving the UHC objective, yet the integration of programmes as elements of a comprehensive health system may facilitate the achievement of UHC. We use a simplified diagrammatic depiction to discuss these matters.

3 On integration

3.1 Integration and transition

Integration does not carry any value in itself. From the angle of systems theory, integration merely describes the course of action of combining separate subsystems so that they

work together as a complete system. There is neither theory nor empirical evidence to support the idea that the integration of vertical programmes automatically contributes to the effectiveness, efficiency, equity or sustainability of the health system:

Obviously, there is little benefit associated with integration if the general health system is weak and any additional component adds to the administrative burden. However, integration seems desirable if the health system is already robust and resilient and programme integration could contribute to efficiency gains and equity by ensuring that the same principles of financing and delivery of services apply to the whole comprehensive benefit package with access for the whole population.

There is still a paucity of evidence as to the merits of integration. The results of the integration of a vertical programme or aspects thereof into the general health system are largely unpredictable. This report is meant to contribute to conceptual clarity. It describes context and pathways of integration, the controversy around which partly hinges on different interpretations of the concept.

The integration of HIV programmes or aspects thereof is sometimes discussed in connection with the idea of transition. Transition refers to a permanent shift in the sources of funding. Amaya et al. (2015) define transition as “the process of moving away from direct donor support by developing mechanisms to manage health programmes, practices or interventions in a sustainable manner through the interaction of internal and external (outside of the health sector) enabling factors”. The idea of using “internal and external enabling factors” may appear abstract but there is value in exploring how these factors can be used to facilitate transition.

The emphasis of the concept of transition lies on the move away from donor support to domestic solutions without excluding the necessity that programmes, practices or interventions may need to change over time in response to external and internal changes. Kavanagh (2014) considers a shift to shared governance and

the claiming of “responsibility” for the service delivery by the national government as central to the process of transition.

As a result of the review of literature, we decided on the unifying definition of transition as an adjustment process that, in this setting, is triggered by a permanent change in context. While transition does not necessarily imply integration activities, integration is either a consequence of transition or requires a transitional process in order to be achieved. Hence, there can be transition without integration but no integration without transition.

In addition, integration has to be more specifically defined as it can mean different things in different contexts. For example, where transitioning of a national HIV programme pursues the objective of moving from direct donor support to domestic programme funding, an integration process can be the means to this end. With regards to national HIV programmes it needs to be specified what is to be integrated where. This could be the integration of core HIV services with the existing primary health care system, whether or not accompanied by an integration of other relevant services into the benefit package. It could also be the integration of comprehensive HIV financing into the budget for the health system striving for UHC. Hence it is paramount to clearly identify the integration objectives.

Partial integration within a programme domain either means that the domain is (purposefully) not implemented in its whole breadth, e.g. only the nurses’ services are integrated but not those of counsellors, or it means that integration, however broadly envisaged, has only happened to a certain degree at a particular point in time.

Table 1 outlines the characteristics of both transition and integration.

T.1

CHARACTERISTICS OF THE CONCEPTS OF TRANSITION AND INTEGRATION

TRANSITION	INTEGRATION
Overarching goal or necessity in the light of contextual or policy change	Means to achieve the objective of transition or practically oriented process that goes hand-in-hand with transition
Direct donor support › domestic funding Direct donor funded services provision › public services provision (Kavanagh 2014)	Vertical national programme › general system
Sector independent	Sector independent
Government level; government ownership	Operational level; ownership dependent on type of integration
Overarching process; changes in programme, project or intervention set-up in response to internal or external changes	Domain-specific (can be partial, e.g. financing integration, services integration or even just aspects of both)
Clear definition which direct donor support shall be replaced	Clear definition of what is being integrated where in order to achieve a transition objective, e.g. entire national HIV programme into public health system, HIV services into primary health care, HIV care into maternal health services, etc.
Ownership	Can be partial, e.g. financing integration, services integration or even just aspects of both

3.2 The integration typology framework

The conceptual framework of this report is based on an exercise of identifying key concepts from the literature that are closely linked to the idea of integration within the broader context of health reform towards the achievement of UHC. Meaningful *domains* characterising distinct areas within which integration can respectively take place have been derived.

Conceptual frameworks for integrating health programmes into health systems exist. Atun and colleagues (2010b) developed a framework focusing on how

health interventions are integrated into health systems that may facilitate the analysis of integration and policies directed at integration across different settings.

The development of frameworks often suffers from the desire to immediately present comprehensive and omnipotent toolkits. In steering clear of reductionist argument, the derivation of the conceptual framework presented here tries to avoid such "solutionism". The framework is kept as comprehensive as necessary without losing a dimension of relevance for the typology - it outlines the structure of the typology.

The framework is normative to the degree that it conclusively determines the dimensions of relevance for HIV programme integration across the domains suggested by the literature: financing, delivery, coverage, and governance.

Various aspects of national HIV programmes relevant to the challenge of integration have been described in the literature: governance of the HIV response (Coker et al., 2010), the delivery of a wide range of HIV-related services (Atun et al., 2011a, 2011b; Rao et al., 2014), the service reach with a view to the population, including key populations (Delany-Moretlwe et al., 2015; Shisana et al., 2015), the definition of ownership of the HIV programme (Hirschhorn et al., 2013; Kawonga et al., 2012), logistics and procurement of the HIV programme (Ripin, 2014), human resources delivering the HIV response as well as facilities and infrastructure through which services are delivered (Oomman et al., 2008; Uwimana et al., 2012).

With a view to health systems' preparedness for integration, the literature describes challenges that can be assigned to the four above-mentioned domains. Integration follows pathways that are to be defined in planning the integration processes.

Integration is specific to each dimension, while the integration pathways across dimensions are not independent of each other. The integration of HIV programmes is a complex process that requires significant capacity and resources: Integration involves comprehensive change management.

1. Financing

The financing domain takes account of the health system functions of collection and pooling of funds as well as purchasing, i.e. the payment of service providers.

The degree to which health financing functions are harmonised within a country's health system indicates progress towards UHC from a financing perspective. The effectiveness, efficiency and sustainability of (public) financial systems depend on financial management capacity, which is of key relevance within this dimension, as it relates to all tasks associated with costing, budgeting and planning (Musango et al., 2012). Within the financing domain, the type of fragmentation of risk pools and the respective contexts of HIV service provision in different population sub-groups, including benefit incidence, signal the health system's status in the light of UHC, whereby the degree of fragmentation as such does not necessarily indicate the extent to which structural change may be required in order to smooth the progress of HIV financing integration. It is important to understand the forms and stages of development of health financing systems towards UHC in order to suggest appropriate modes for integrating HIV financing. Full integration would imply that funds from all sources, including donor funding for HIV, are pooled and that there are common channels for allocating these resources.

2. Delivery

The delivery domain that focuses on the provision of health services captures, inter alia, appropriate and effective healthcare facilities, the quality and quantity of human resources in charge of healthcare delivery, as well as logistics and procurement as part of the health system. Whereas the speed of HIV financing integration is largely independent of HIV service integration, the degree to which HIV services have been integrated into the benefit package accessible through the general health system impacts on HIV financing integrability. It is important to acknowledge

that targeted programmes “lie along a continuum from integrated to fully vertical, and depending on the context, integrate with different health system functions to varying extents” (Kawonga et al., 2012). The assessment or planning of integration needs to consider the whole range of types of HIV/AIDS-related services within national HIV programmes, including prevention, treatment and care, as well as education, not all of which are (fully) integrable into health systems. Different services may be integrated in different ways or at different points in time.

3. Coverage

Coverage forms the core idea of UHC. The term—whose use is often ambiguous—embraces different object areas: It describes the share of the population with rightful access to the services offered under a specific scheme or coordinated group of schemes (population coverage); it designates the extent of the benefit package that is offered (service coverage), which should be reflective of health needs; it also serves to specify the degree to which the utilisation of services does not require payments out of pocket (financial coverage). The coverage domain also relates to service quality, as rightful access to services comprises the idea that these must be offered in acceptable quality. Lastly, the relationship of use and need is an important gauge within the coverage dimension: Individuals should utilise specific services when and if they need them (McIntyre & Kutzin, 2016).

4. Governance

The domain governance questions whether a country’s health system exhibits coherent decision-making structures, stakeholder participation, accountability

and information, supervision and regulation as well as consistency and stability—all prerequisites for successful integration of an HIV programme (Kar, 2014).

A typology needs to ensure that all thinkable variations of integration can be appropriately reflected. In discussing the much-debated topic of disease-specific programmes potentially undermining health systems, Atun and colleagues explicitly highlight that there is no room for a binary view of the world, as realities were heterogeneous with “varied levels of integration with health system functions” (Atun et al., 2011b: S72). This realisation poses a major challenge to the design of any operational typology.

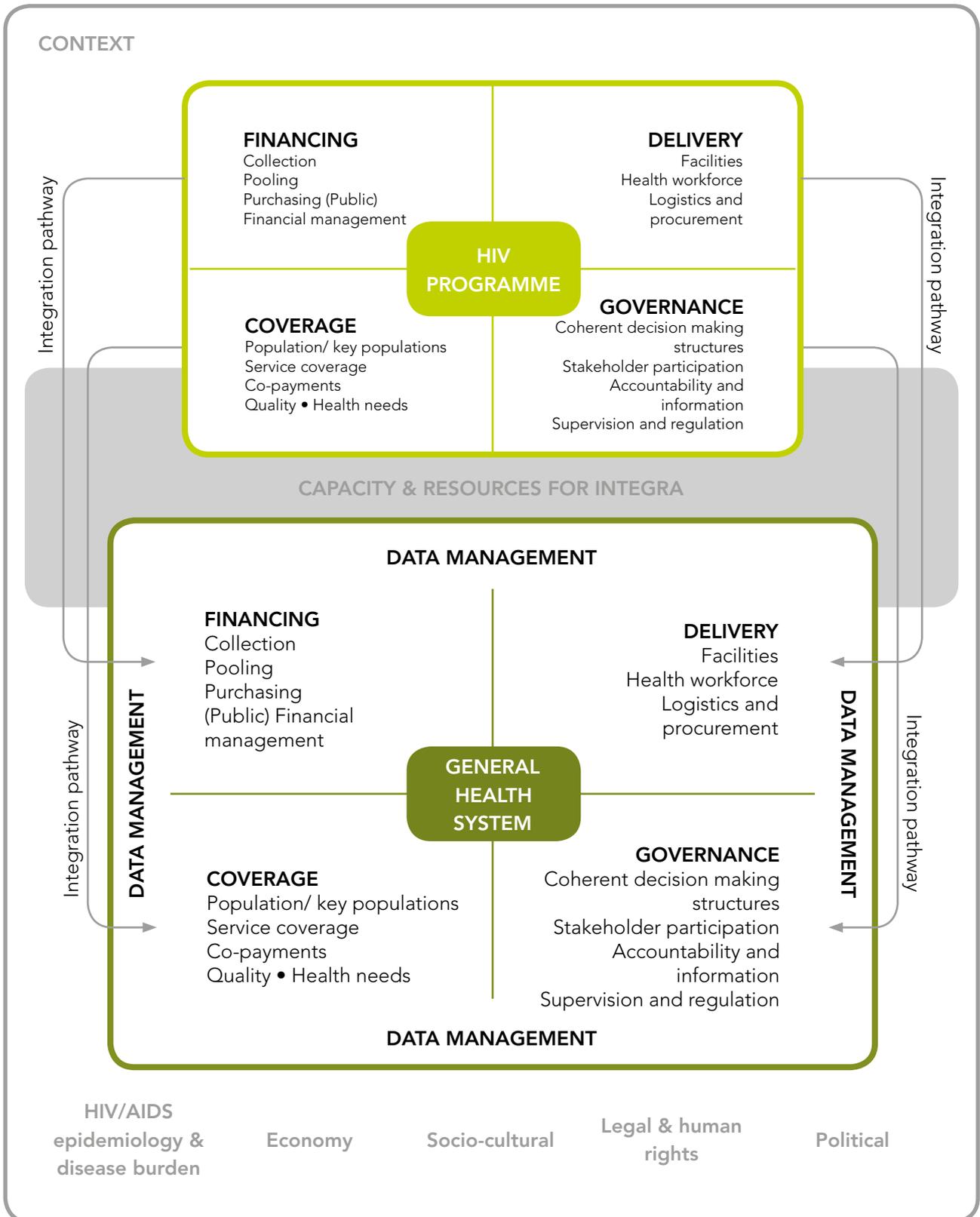
A further challenge lies in the fact that the typology needs to capture processes along different timelines. The integration of disease-specific programmes with health system functions, including financing, as well as health reform towards UHC are complex processes subject to different dynamics and partly driven by different actors.

Given complexity and multi-rational decision-making, the typology will neither be able to present a ranking of countries on a single ratio scale, nor will it provide immediate guidance towards the next steps. The main value of the typology matrix will lie in ensuring that all domains and associated activity areas are appropriately considered when stakeholders engage in planning for HIV programme integration with UHC as a goal.

The visualisation of the typology framework, as shown in Figure 1, depicts the dimensions considered essential in the process of integrating a country’s national HIV programme into the wider health system as part of the move towards UHC.

F.1

VISUAL OVERVIEW OF CONCEPTUAL FRAMEWORK



5. Context

Countries' health systems and HIV programmes do not exist in a vacuum. The consideration of context becomes particularly relevant when it comes to the integration of the financing service delivery functions. Hence, key contextual aspects are included in the framework for the reason that they influence a country's ability and capacity for HIV integration to different degrees. These include the characteristics of a country's HIV/AIDS epidemiology and, more broadly, of its disease burden. They also include the socio-cultural context: Social structures and culturally determined behaviours, including gender-related issues, co-determine the preferable design of interventions and strategies targeting HIV. They also determine the feasible set of approaches towards service integration.

The state of a country's economy is absolutely crucial, as it determines the conditions of financing and the institutional shape of the healthcare system. The economy determines both fiscal space for public healthcare funding and limits to resource mobilization. Political context touches upon the degree of government support of health policy reform as well as the space for any policies around HIV/AIDS (Simmonds, 2008). The political context determines the dynamics of the process towards UHC as well as windows of opportunity. The context of the legal system and the human rights situation on the other hand impacts on the topic areas of the optimisation of HIV programmes and their integration into the general health system in terms of both service delivery and financing at many different points. These points range from the question as to whether the right to health or healthcare is enshrined in a country's constitution, to the legal treatment of same-sex relationships.

McIntyre and Kutzin (2016) highlight that the mere recognition of context does not suffice; while a contextual factor is not directly controllable, it has an impact on the attainment of UHC goals and needs to be explicitly considered in strategy formulation and planning.

3.3 Populating the matrix: Process indicators and observation areas

The country typology matrix (Figure 2) forms the actual tool to capture country characteristics that—depending on the objectives of the concrete exercise—either reflect the country's preparedness for integration of the HIV programme or integration progress within the domains. The typology matrix provides an overview of the dimensions that matter within the respective domains and allows for capturing countries' key characteristics relevant for programme integration on the journey towards UHC. Each dimension within each domain of the framework needs to be captured by relevant indicators.

The results could serve to present individual country cases and allow for benchmarking and comparisons between countries regarding their progress and challenges of HIV programme integration; the results should also serve as a useful overview to aide the development of context-specific integration strategies. The indicators should ultimately signify the integrability within a certain domain, e.g. the feasibility or degree of the integration of HIV financing into the general health system.

We have identified a first set of indicators in order to populate the matrix. Wherever neither literature nor practice guided the identification of indicators or the choice of indicator proved ambiguous given the lack of a clear objective for this general exercise,

“observation areas” have been sketched, i.e. topic areas within which suitable indicators need to be identified.

It is important to keep in mind that a comparison of countries should be approached with care as on one hand each individual country is at a different stage of progress on its path towards UHC and on the other hand faces different challenges with regards to its HIV epidemic and response, over and above the differing environments.

The typology matrix can be converted into a system or dashboard using “traffic lights”. A colour-based system is occasionally used in project management, progress reporting and readiness assessments in order to provide an easily accessible overview regarding key characteristics of a project or other suitable object of observation. In practice, such approaches often suffer from lack of academic rigour and may indeed not be appropriate for benchmarking or

for comparisons. Often, the classification of conditions—as “green”, “yellow” and “red”, or as “high”, “moderate” and “low”, for example—is derived rather randomly; publications rarely explain the rationale of their respective classifications (for example, Atun, 2011b).

Indicators could serve as the basis of a traffic light system. After indicators have been identified, the classification for the traffic light system needs to be established according to coherent theoretical criteria and sensible regulations. If an observation area does not lend itself to identifying any quantitative indicator, the categorisation of a country’s features or properties regarding the respective dimension ought to involve a participatory process. An assessment on the basis of categories within the observation areas may also be suited to determine the likely success of integration within a particular domain or may be used to otherwise inform the integration strategy.

T.1

CHARACTERISTICS OF THE CONCEPTS OF TRANSITION AND INTEGRATION

COUNTRY CONTEXT		NATIONAL HIV PROGRAMMES		HEALTH SYSTEM	
				FINANCING	
DIMENSIONS	INDICATORS / OBSERVATION AREAS	DIMENSIONS	INDICATORS / OBSERVATION AREAS	DIMENSIONS	INDICATORS / OBSERVATION AREAS
HIV/ AIDS epidemiology	Generalised epidemic: >1% in general population; Concentrated: >5% in any sub-population at higher risk of infection; Low-level: relatively little HIV measured in any group; Distribution of vulnerable groups e.g. key populations, women, children etc.	Governance HIV response	Degree of fit between the governance structure of the HIV/ AIDS programme and that of the general health system (institutions, processes)	Collection	Share of population contributing to a single health scheme
Disease burden	Changes in life expectancy; leading causes of death; leading causes of DALYs lost	HIV financing	Degrees of domestic and external HIV funding	Pooling	Single fund as share of total healthcare funding
Socio-cultural context	Gender Inequality Index (GII); Gender Development Index (GDI); sexual conduct; stigma and discrimination (for key populations in particular)	Ownership of HIV programmes	Participation of relevant health system stakeholders in HIV programme coordination	Purchasing	Share of the health sector underlying a common provider payment system
Economy	Income level and distribution; poverty; economic growth; fiscal space	Logistics and procurement	Supply chain management model, e.g. country-led vs. integrated	Financial management	Level of financial management capacity demonstrated across different levels of the health system
Political context	Degree of incorporation/ prioritisation of health in national growth and poverty alleviation strategy and as part of multi- sectoral approach	Human resources	General health system staff involved in HIV response		
Legal context and human rights	Constitutional right to health or healthcare	Facilities	Share of HIV services delivered at general healthcare facilities		

DELIVERY		COVERAGE		GOVERNANCE	
DIMENSIONS	INDICATORS / OBSERVATION AREAS	DIMENSIONS	INDICATORS / OBSERVATION AREAS	DIMENSIONS	INDICATORS / OBSERVATION AREAS
Facilities and infrastructure	Capacity of general healthcare facilities to adequately cater for all patients, i.e. fulfilling quality criteria (including HIV patients)	Population	Percentage of population covered by pooled funds	Coherent decision making structures, supervision and regulation	Functional relationships defined, documented and monitored, M&E
Human resources	National HR strategy in place; no. of doctors/ nurses/ midwives per 10,000 people; adequate training sufficiently available	Benefit package	Basic package of services covered; degree of integration of HIV services into primary care	Stakeholder participation	All relevant staff and stakeholders are informed about change processes incl. goals and timeframe; regular meetings are planned to ensure participatory process; a common vision has been defined; plans agreed between government and donors/gov't and other stakeholders
Logistics and procurement	Capacity and state of development of the public procurement system (and degree of involvement in ARV procurement)	Co-payments	Co-payments differentiated according to socio-economic status (avoidance of catastrophic expenditure)	Accountability and information	Structure and use (if and how) of communications technology for programme management; M&E
		Quality	Quality management in place	Consistency and stability	Risk management strategy in place
		Use	Services are being used according to need		
		Need	Basic package is based on population need		



3.4 Context indicators at country level

A country's progress towards UHC and the capacity to integrate the current national HIV programme as far as and when meaningful strongly depend on context. This section outlines dimensions of context—HIV/AIDS epidemiology, disease burden, socio-cultural context, economy, as well as legal context and human rights—and their role in providing the context for assessing the integrability of HIV programmes. Commonly available indicators are presented for the case study countries in tables within the sub-sections.

3.4.1 Epidemiology

The epidemiological profile of a country sets very unique challenges for integrating the financing and services in the existing health system. A country with a highly generalised epidemic will encounter a larger task in both responding to it as well as in integrating the HIV financing of a large national programme into financing for UHC. There is rich literature on the challenges of different forms of the HIV pandemic (Tanser et al., 2014; UNAIDS, n.d.). Hence, respective categories are included in the typology, e.g. low-level (little HIV in any population sub-group), concentrated (over 5% in any sub-population at higher risk of infection), and generalised (over 1% in general population), as defined by WHO¹.

What the chosen case study countries Thailand, Jamaica, South Africa, Malawi, Ghana and Kenya have in common is the characteristic of a generalised epidemic. However, over and above that commonality, the epidemiological situation varies significantly across countries, especially in

terms of HIV prevalence. Unsurprisingly, South Africa tops the table with a prevalence rate of 19.2% compared with Thailand's low prevalence of just above 1% (still the country in Asia with the highest HIV prevalence rate (2014 est.)²). Coping with such a high HIV prevalence and hence catering for large numbers of PLWH presents unique challenges to the South African health system. Despite countries such as South Africa and Kenya having achieved successes in a steady decline in HIV prevalence since the peaks of the epidemic, the number of people affected by the disease continues to increase over time (GoK, 2014a). This is a widely observed development in many countries of Sub-Saharan Africa, leading to an increased financial burden on the countries attempting to cater for the growing and continuous need for healthcare associated with HIV and AIDS. In all of the included Sub-Saharan African countries, women are disproportionately affected by the HIV epidemic. Again, South Africa leads the table with 57% of those living with HIV being women. The gender dimension highlights the importance of paying particular attention to the role of women in the national HIV response. This is further discussed under section 3.4.3.

Furthermore, the higher the percentage of children living with HIV in a country, the more likely it is that the health system will fail to deliver on essential services in the area of reproductive and maternal health, paramount to combatting the AIDS epidemic. Especially Malawi and Ghana, followed by Kenya, show high rates of children living with HIV.

Besides women and children in general, key populations such as sex workers, men having sex with men (MSM) and injecting drug users (IDU), among others, are particularly

¹ <http://www.who.int/hiv/topics/surveillance/2ndgen/en/>

² <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2155rank.html>

vulnerable both in terms of contracting the disease and receiving treatment for it. Overall, their risk behaviours and vulnerabilities strongly influence the dynamics of the epidemics. Hence, there is a strong call to focus on these key populations in the attempt to curb the epidemics. However, access to required services is particularly challenging in many countries (see section 3.4.3).

With a view to the case study countries, South Africa has a particularly high HIV prevalence among sex workers (58%) with a lower percentage of HIV in MSM (32.4%). Still this is a significant number of PLWH

compared to Jamaica presenting a similar burden in MSM (32.8%). However, for Jamaica this percentage of HIV prevalence in this particular population presents their key challenge, which will have to be addressed. Kenya will have to address all three major key populations with a prevalence of around 20-30% each. Overall figures for Thailand appear rather low in comparison. However, IDUs stand out and when looking at sex workers, with the overall figure not available, there seems to be a particularly high HIV prevalence for male sex workers (approx. 12%) in particular compared to female sex workers (3%) (UNAIDS, 2014b).

T.2 EPIDEMIOLOGY IN CASE STUDY COUNTRIES

INDICATORS	THAILAND	JAMAICA	SOUTH AFRICA	MALAWI	GHANA	KENYA
Overall profile	Generalised	Generalised	Generalised	Generalised	Generalised	Generalised
Adult HIV prevalence		1.6%	19.2%	9.1%	1.6%	5.9%
Number of people living with HIV	1.1%	29,000	7,000,000	980,000	270,000	1,500,000
% of women aged 15 and over living with HIV	40.9%	37.9%	57.1%	55.1%	55.6%	55.3%
% of children aged 0 to 15 living with HIV	0.9%	1.7%	3.4%	8.6%	7.0%	6.5%
HIV prevalence in sex workers	"Male 12% Female 3%"	4.1%	57.7%	24.9%	11.1%	29.3%
HIV prevalence in MSM	9.2%	32.8%	32.4%	17.3%	17.5%	18.2%
HIV prevalence in IDUs	19.0%"	not available	not available	not available	not available	18.3%

Source: UNAIDS, 2014b, 2015b

3.4.2 Disease burden

The impact of health conditions on a country's social and economic development determines the strain under which the respective health systems have to operate. In this context, it is of interest to establish the impact HIV and AIDS have on a country in terms of mortality and morbidity alongside other predominant health conditions.

With a view to life expectancy at birth, the case study countries show different dynamics since the beginning of the HIV/AIDS epidemic. Whereas in Thailand life expectancy remained steady and then improved after the onset of HIV, life expectancy in South Africa in comparison dropped by ten years during the peak of the HIV epidemic, only to return to its pre-HIV level today. Millions of people died prematurely during this time with a high impact on the South African economy both in terms of wealth generation and healthcare expenditure. Jamaica's dynamic lies closer to that of Thailand, whereas all other Sub-Saharan African countries experienced a more or less significant dip in life expectancy during their individual HIV peak times.

HIV/AIDS ranks top of the list of causes of death in three of the six case study countries. Especially South Africa and Malawi are disproportionately affected by the impact of the disease: (nearly) a third of deaths are caused by HIV/AIDS. This is closely linked to very high percentages of children under five dying due to HIV/AIDS (17% and 12% respectively). Furthermore, in both countries HIV is the leading cause of years lost due to ill health, disability or early death when measured in disability-adjusted life years (DALYs).

In Thailand, Jamaica and Ghana, in comparison, HIV/AIDS is responsible for a far lower number of deaths and ranks further down among causes of death. Equally, only

a small percentage of children under the age of five years die of the disease.

Increased life expectancy is a meritorious achievement for any country. With it, however, stress on the health system increases. For a country with a high number of PLWH this means that even if the number of people needing treatment stayed the same, more resources would be required to cater for their life-long medical care. With the global goal of eradicating HIV infections a long way off, all those newly infected increase the pressure on the systems even further. Hence, the developments as they present themselves in a particular country context need to be considered and forecast in order to anticipate the future burden on the system. This will be paramount for establishing the feasibility of a successful integration of any HIV programme.

3.4.3 Socio-cultural context

Socio-cultural context is a particularly complex but highly relevant dimension that impacts on policy pathways in various ways. It comprises historical legacies and presents itself in the form of socio-cultural norms affecting normative and cognitive legitimacy.

A thorough understanding of a country's socio-cultural context of HIV becomes particularly relevant in determining a strategy towards integrating HIV services into routine healthcare. There is evidence, for example, that the integration of HIV services into routine maternal and child healthcare may increase stigma in some contexts (An et al., 2015).

Gender equality

In the context of health in general and HIV/AIDS in particular, gender equality signifies an important expression of socio-cultural context.

T.3

EPIDEMIOLOGY IN CASE STUDY COUNTRIES

INDICATORS	THAILAND	JAMAICA	SOUTH AFRICA	MALAWI	GHANA	KENYA
Life expectancy at birth (years) Pre-HIV peak	70 (1989)	71 (1989)	62 (1994)	47 (1994)	58 (1990)	60 (1985)
Life expectancy at birth (years) During HIV peak	70 (1997)	70 (1995)	52 (2009)	46 (1996)	57 (1995)	53 (2000)
Life expectancy at birth (years) Today	75 (2015)	76 (2015)	63 (2015)	58 (2015)	62 (2015)	63 (2015)
Leading causes of death	1. Heart disease (13.7%) 2. Stroke (10.3%) 3. Lower respiratory infections (9.4%) 4. Road injury (5%) 5. Chronic obstructive pulmonary disease (4.7%) 6. HIV/AIDS (4.1%)	1. Stroke (16.5%) 2. Heart disease (11%) 3. Diabetes mellitus (10.8%) 4. HIV/AIDS (6.6%)	1. HIV/AIDS (33.2%) 2. Stroke (6.5%) 3. Diabetes mellitus (5.7%)	1. HIV/AIDS (27.1%) 2. Lower respiratory infections (8.6%) 3. Malaria (6.3%)	1. Lower respiratory infections (10.7%) 2. Stroke (8.7%) 3. Malaria (8.3%) 4. Heart disease (5.8%) 5. HIV/AIDS (4.9%)	1. HIV/AIDS (14.8%) 2. Lower respiratory infections (12.3%) 3. Diarrheal diseases (6.3%)
% of HIV/AIDS as cause of death in children under 5 years	1%	1%	17%	12%	1%	4%
Leading causes of DALYs lost	1. Cardiovascular diseases and diabetes 2. Other non-communicable diseases 3. Neuro-psychiatric conditions 4. Cancers 5. Unintentional injuries 6. HIV, TB, malaria	1. Cardiovascular diseases and diabetes 2. Neuro-psychiatric conditions 3. Other non-communicable diseases 4. Cancers 5. Unintentional injuries 6. Maternal, neonatal, nutritional 7. HIV, TB, malaria	1. HIV, TB, malaria 2. Cardiovascular diseases and diabetes 3. Other non-communicable diseases	1. HIV, TB, malaria 2. Maternal, neonatal, nutritional 3. Other infectious diseases	1. Maternal, neonatal, nutritional 2. HIV, TB, malaria 3. Other infectious diseases	1. Maternal, neonatal, nutritional 2. HIV, TB, malaria 3. Other infectious diseases

Sources: WHO, 2016a; Roser, 2016; WHO 2012 country statistics

The issue of gender equality plays a major role in the progression of an HIV epidemic. In general, women are at a disadvantage when it comes to HIV. In sub-Saharan Africa young women are more than twice as likely as young men their own age to be living with

HIV (UNICEF, 2013). This is also reflected in the percentage of women living with HIV as shown in Table 2.

Women are not only more susceptible to HIV due to the female biology but the epidemic



also disproportionately affects them due to their cultural, social and economic status in society. Women are often limited in their life choices and opportunities as well as access to information, health and social services, education and employment. In addition, women are subjected to gender-based violence, harmful traditional practices, stigma and discrimination. Sexual conduct and related negotiating power plays a major role for women in many countries when it comes to HIV infection. In combination with inequitable laws and customary practices, all the above increase women's vulnerability and weakens the national response to the HIV epidemic (UN Women, 2015). Increasing gender equality and empowering women at a country level will, over time, contribute to a stronger and more manageable HIV response decreasing the burden on health budgets.

In Jamaica, early sexual debut, cross-generational sex, multiple partners, stigma and discrimination play important roles in driving the HIV epidemic besides gender inequality in a wider sense (UN Women, 2015). Masculine dominance and feminine submissiveness lead to a drastically reduced condom use in the country. Official steps have been taken to address this. As a signatory of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), Jamaica is committed to the improvement of gender equality at the policy level. Furthermore, the country passed two policies in 2011 for advancing gender equality: the National Policy for Gender Equality and the Declaration of Commitment to Eliminate Stigma, Discrimination and Gender Inequality Affecting Jamaica's HIV Response. Still expandable, despite Jamaica's policy commitments, are networks for Women Living with HIV (WLHIV). With only two existing networks, there are limitations of women's participation in the national HIV response.

Very similar reasons impair Kenya's national HIV response with regard to gender equality (UNWomen, 2015). Also a signatory of the CEDAW, Kenya has launched a 'Gender Action Plan' aligned with the National AIDS Strategic Plan. However, similarly to Jamaica, challenges and limitations exist for the participation and representation of WLHIV.

Indicators capturing gender equality are United Nations Development Programme's (UNDP) Gender Inequality Index (GII) and the Gender Development Index (GDI).

The GII measures gender inequalities taking into account three important aspects of human development (UNDP Human Development Reports):

- Reproductive health (measured by maternal mortality ratio and adolescent birth rates);
- Empowerment (measured by proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with at least some secondary education);
- Economic status (expressed as labour market participation and measured by labour force participation rate of female and male populations aged 15 years and older).

The higher the GII value, the more disparities between females and males and the more loss to human development.

The GDI measures gender gaps in human development achievements taking into account the following three dimensions (UNDP Human Development Reports):

- Health (measured by life expectancy);
- Knowledge (measured by mean years

of schooling and expected years of schooling);

- Living standards (measured by GNI per capita).

The GDI shows how much women are lagging behind their male counterparts and how much women need to catch up within each dimension of human development.

In light of these indicators, Malawi stands out with high disparities between men and women as measured by the GII and low GDI.

However, in terms of GDI, Ghana is even further behind, meaning that the gap women have to close to reach the status of men is even larger. In comparison, Thailand claims to have a very equal society when it comes to differences between men and women. Overall, Sub-Saharan African countries will have to undertake further efforts in order to close the gender gap. However, as underlined by Jamaica’s unresolved gender equality issues, the suggested indices may reflect a tendency of the gender situation in a particular country yet do not explain the gender issue in its entirety and complexity.

T.4 GENDER INDICATORS IN CASE STUDY COUNTRIES

INDICATORS	THAILAND	JAMAICA	SOUTH AFRICA	MALAWI	GHANA	KENYA
Gender Inequality Index (GII) 2014	0.380	0.430	0.407	0.611	0.554	0.552
Gender Development Index 2014	1.000	0.995	0.948	0.907	0.885	0.913

Sources: WHO, 2016a; Roser, 2016; WHO 2012 country statistics

Key populations

Socio-cultural context also plays a major part for key populations who face particular challenges when it comes to HIV/AIDS. Experiencing stigma, discrimination, harassment, exclusion and violence due to their HIV status on the one hand and their membership to key populations, such as sex workers, MSM and IDUs, on the other make them particularly vulnerable (GNP+, 2015).

Additionally, discriminatory laws and policies including the criminalisation of sex work, drug use, sexual orientation or gender identity, contribute to and reinforce low levels of access to prevention, treatment and care. Often, issues affecting key populations are little understood and the capacity to provide for them is lacking.

Furthermore, a general lack of confidentiality can affect key populations disproportionately. A lack of data collection and disaggregated



analysis provides further obstacles in appropriately catering for their specific needs (PAHO, 2011).

Where all groups may face very individual challenges, tackling these shared issues could provide a base to build upon and a prerequisite for integrating HIV services into UHC for these populations.

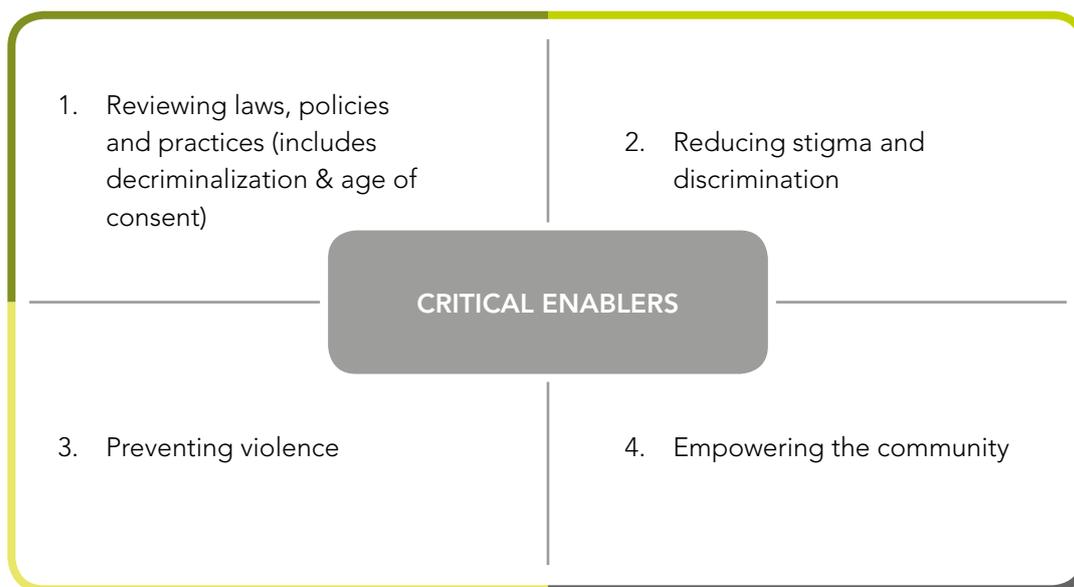
Non-governmental organisations (NGOs) have played a major part in the provision of essential care and support for key

populations, often with little recognition or structural support by local governments. In addition, linkages to government services are often limited and, due to the dependence on external funding inherent to NGOs, sustainability is not guaranteed (PAHO, 2011).

Hence, critical enablers should be put in place in order to improve the situation for key populations and to create a conducive environment for the integration of HIV services specific to those groups into the general health system.

F.1

CRITICAL ENABLERS FOR IMPROVED ACCESS OF KEY POPULATIONS TO HIV SERVICES



Source: WHO (2016b)

In this regard, WHO (2016b) suggests addressing four key areas. Laws, policies and practices should be reviewed in order to decriminalise the behaviours of

key populations and therefore reduce the barriers to essential health care. Reducing discrimination and stigma with the introduction and promotion of anti-

discriminatory and protective policies for key populations as well as the introduction of anti-discriminatory codes of conduct as part of HIV programmes in the health sector could overcome access barriers. Furthermore, the inclusion of affected populations in the development of programmes makes them more effective. Hence, empowering the community is critical. Preventing violence against key populations and supporting those who have experienced violence is equally crucial in providing equal opportunities in the access to HIV services without fear of repercussions.

Just looking at one exemplary aspect, homosexuality legislation differs greatly in various countries. Especially in sub-Saharan countries, strong resistance to decriminalising homosexuality persists. Malawi, for example, has recently not achieved the legal protection of homosexuals from prosecution due to pressure by the majority population and religious leaders (BBC, 2015; Kretz, 2013). Thailand, on the other hand, managed to introduce its 2015 Gender Equality Act, which also protects members of the LGBT community and fines those convicted of discrimination with up to 20,000 Baht (USD 570).

3.4.4 Economy

General economic indicators must be taken into consideration in a typology to guide HIV financing integration towards UHC. Beyond the possible inclusion of economic forecast data, selected other national accounts and macroeconomic data (such as inflation), the government budget is at the centre of attention. Economic inequality plays a role in defining possible trajectories towards

UHC and should be adequately reflected in the typology.

Fiscal space constitutes a critical variable within the typology reflecting how much "room" is in a country's budget without jeopardising the financial position or a country's economic stability. Fiscal space is a critical prerequisite for the transition from donor to domestic funding. For the achievement of UHC, significant additional amounts of financial resources may be necessary depending on a country's progress on UHC to date. A focus lies on a country's revenue-generating capacity. The indicative labels suggesting the level of fiscal space in Table 5 are estimates based on an assessment of respective data and on unsystematically obtained expert opinion. In this regard, further straightforward indicators (such as the debt-to-GDP ratio that provides information relevant for the assessment of fiscal space) offer useful information. This ratio is high for Jamaica, for example, at 128 percent by the end of fiscal year 2015/16 (World Bank, 2016).

Neither on the delivery nor on the financing side have cost projections taken into account the process costs of integrating a vertical programme. Costs of change are not negligible. They should be calculated and accounted for in any strategic plan for health reform.

Table 5 reveals very different levels of indicators for the six countries. The country classification by income is used as a placeholder. The flaws of the concept have been highlighted repeatedly, and concerns that policies based on this classification ignore important dimensions of development such as poverty, inequality and health need have led to the development of alternative classification frameworks (Global Fund, n.d.).

INDICATORS	THAILAND	JAMAICA	SOUTH AFRICA	MALAWI	GHANA	KENYA
Income level	Upper middle	Upper middle	Upper middle	Low	Lower middle	Lower middle
GDP per capita, PPP USD 2015	16,305	9,063	13,165	1,183	4,201	3,083
Inflation (consumer prices) 2015	-0.9%	3.7%	4.6%	21.2%	17.1%	6.6%
Income distribution (Gini coefficient) 2013	39.4	45.5	63.1	43.9	42.8	47.7
Poverty headcount ratio at national poverty level	10.5% (2014)	19.9% (2012)	53.8% (2010)	50.7% (2010)	24.2% (2012)	45.9% (2005)
Prospective growth	2016: 2.5% 2017: 2.6% 2018: 3.0%	2016: 1.5% 2017: 2.2% 2018: 2.6%	2016: 0.6% 2017: 1.1% 2018: 2.0%	2016: 3.0% 2017: 4.7% 2018: 5.4%	2016: 5.2% 2017: 8.2% 2018: 7.5%	2016: 5.9% 2017: 6.1% 2018: 6.2%
Fiscal space	Low	Very low	Low	Very low	Low	Low

Sources: World Bank Data; UNDP Human Development Reports

The income distribution in the richest two of the selected countries in terms of GDP per capita is extremely dissimilar. At a poverty headcount ratio of little over 10% and a Gini coefficient slightly below 0.4, income is far more equally distributed in Thailand than in South Africa, where approximately half the population is poor and the Gini coefficient exceeds 0.6. In South Africa, inequality constitutes an obstacle towards achieving UHC.

It would be improper, however, to imply that economic indicators are the main determinants to drive the relevant processes. Even where health systems are relatively well resourced, a lack of absorptive capacity may create serious bottlenecks (Irurzun Lopez, 2010). Absorptive capacity is determined by the availability of infrastructure and human resources as well as by good governance.

3.4.5 Political context

A country's political will and commitment to its health policy objectives play an important role in implementing major changes such as integrating a national HIV programme, financially as well as logistically, into an existing health system.

The other success factor within the political context is public trust of government and trust towards the health system and its institutions. The public acceptance of government policies in an area where there is a high likelihood of controversial debate depends on the degree of resonance policy makers manage to generate.

The political dimension is reflected in the degree of incorporation or the prioritisation of health in national growth and poverty alleviation strategies and as part of a multi- sectoral approach. Ultimately, it is reflected in demonstrated government activity towards health policy objectives and the ways in which this resonates among the population. The formulation of an appropriate indicator or indicators for the political context dimension depends on the purpose of the application of the typology.

3.4.6 Legal context and human rights

There are high-level indicators that point towards the role of health and healthcare in a particular country. One such indicator could be the existence of a constitutional right to health or healthcare. South Africa, for example, shows pride in Section 27 of the country's constitution, which includes the right of access to healthcare.

There may be other observation areas within the legal dimension. Fairness and efficiency of a country's legal system as well as the degree to which human rights are adequately

protected are important observation areas, as they affect the effectiveness of the HIV response as well as the achievement of UHC (UNDP, 2012).

In light of discriminatory practices and legislation and the subsequent lack of access for certain parts of the population, the compliance with human rights as laid out by The Universal Declaration of Human Rights (UDHR) are particularly important to observe. This includes the right to freedom from cruel, inhuman and degrading treatment (Article 5, UDHR), the right to life (Article 3, UDHR), the right to dignity (Article 1, UDHR) as well as the right to health (Article 25, UDHR). Despite relevant legislation being in place or international legislation subscribed to, the reality in each country as it presents itself should form the basis for the decisions on the extent and time path of the integration of HIV programmes.

3.5 National HIV programmes — observation areas and indicators

National HIV programmes are the backbones of the HIV response in most countries. The structure and quality of the current HIV responses need to be analysed and evaluated against the structure and performance of the broader health system. The "degree of fit" co-determines the integrability of HIV financing.

3.5.1 Governance of HIV response

As for the health system as a whole, the HIV response requires a robust governance structure in itself. It is the prerequisite for a response to any HIV epidemic that is to be delivered in a transparent and participatory fashion. The question of effective governance is often closely linked to that of decentralisation of the HIV response and of the healthcare system.

Good governance is jeopardised wherever several parallel systems exist—regarding both delivery as well as modes of financing.

Looking at the overall set up of the HIV response in Thailand, the remit to manage the national HIV epidemic lies with the Cabinet and the National AIDS Committee who approved the National AIDS Strategic Plan for 2014-16 outlining ten overall strategic targets (Thai National AIDS Committee, 2015).

In Jamaica, the national HIV/AIDS response is located within the Ministry of Health, which oversees the National HIV/STI Programme. The programme involves a close collaboration with all government ministries, the tripartite team of government, employers and workers, the business sector and non-governmental organisations including faith-based entities (GoJ, n.d.).

The National AIDS Committee was established in 1988 with the purpose to strengthen the multi-sectoral approach. As a non-governmental organisation it does this by advising the Minister of Health on relevant policy issues, involving all sectors of society in prevention efforts, acting as an umbrella and membership organisation and network on all issues concerning HIV/AIDS/STIs as well as providing a stable funding source for its activities. Moreover, it provides legal assistance to PLWH as well as advocacy services for legislative change and the reduction of stigma and discrimination (GoJ, n.d.) A National HIV Strategic Plan (NSP) 2012-2017 is in place. There is strong civil society engagement in Jamaica, albeit largely donor-dependent.

In 2011, the government of Malawi established the National AIDS Commission (NAC) as a public trust with the aim to provide overall leadership and coordination of the national response to HIV and AIDS. It acknowledged that the response to the HIV/AIDS pandemic required a multi-sectoral

approach and interaction between HIV/AIDS and broader issues of population, economic development and management, social service provision, culture, community development, human rights and gender (National AIDS Commission Malawi, n.d.).

The Ministry of Health has a dedicated Department of HIV & AIDS which was established in 2001 in order to coordinate the biomedical HIV programme in Malawi. It is also responsible for the national coordination of the management of sexually transmitted infections, prevention of mother to child transmissions as well as the implementation of the national voluntary medical male circumcision programme. It also oversees M&E for all these programmes under the wider Central Monitoring and Evaluation Department (CEMED) of the Ministry of Health.

In Ghana, the Ghana Aids Commission was set up under the Ministry of Health with the mandate to provide support, guidance and leadership for the national response to the HIV and AIDS pandemic. In the country's National HIV and STI policy, the government wants to ensure that strategies, resources and inputs for HIV and AIDS are integrated within the health system to enhance overall efficiency (Ghana AIDS Commission, 2013).

For the decision on whether or not a country's governance setup of the national HIV response is conducive for the process of integration in the light of UHC—which is subject to a social contract—, country specific assessments will have to be undertaken. These should follow the same guidelines as the health system assessments covering the same observation areas:

- Coherent decision making structures
- Stakeholder participation
- Accountability and information

- Supervision and regulation
- Consistency and stability

With a view to integrating HIV services into routine health services, approaches require careful planning and the development of evidence-based and locally tailored models of service integration (Joseph Davey et al., 2016). Governance ought to be oriented towards a participatory strategy that incorporates coordinated training, logistics and resources.

3.5.2 Financing and financial scope of HIV programme

The financial scope of the HIV programme differs dramatically between countries, depending firstly on the extent of the epidemic and the local cost structure. Further, each country's economic background and the respective history of donor involvement determine the relative shares of domestic and external funding.

T.6 HIV FINANCING IN CASE STUDY COUNTRIES

INDICATORS	THAILAND (2013)	JAMAICA (2013)	SOUTH AFRICA (2014)	MALAWI (2012)	GHANA (2013)	KENYA (2013)
HIV spending total USD	287,000,000	20,392,493	1,880,000,000	145,000,000	47,300,000	737,000,000
Domestic HIV spending USD	256,685,666	6,198,967	1,492,672,908	11,827,301	6,830,808	153,454,537
Domestic HIV spending %	89.4	30.4	79.4	8.2	14.4	20.8
HIV spending - external funding USD	30,516,721	14,193,526	388,000,000	133,575,811	40,457,844	583,989,611
HIV spending - external funding %	10.6	69.6	20.6	92.1	85.5	79.2

Sources: UNAIDS AIDSInfo; UNAIDS (2014) Jamaica Spending Assessment

Transition from external to domestic funding, the “domestication” of HIV financing, is— theoretically—not a necessary condition for HIV financing integration. The ranking of the external funding share of the six countries depicted in Table 6 roughly reflects the ranking by per-capita GDP as in Table 5.

Selected observations from different case study countries illustrate the very different backgrounds and concerns.

The Thai AIDS response progress report 2015 (Thai National AIDS Committee,

2015) highlights that the country's HIV response is largely funded by domestic resources, particularly the area of treatment (100%). All three existing health coverage schemes offer a comprehensive benefit package addressing the entire continuum of diagnosis, treatment, and follow up (including free first and second line ARV, salvage regimens, viral load and resistance monitoring). HIV prevention is still donor-funded to a significant extent (Oberth, 2016).

According to Thailand's HIV/AIDS Operational Plan 2015-2019, the costing



plan of HIV service delivery contains allocated budget lines for service system strengthening, which includes aspects such as health personnel training, gender-related and community strengthening activities.

It is worth noting that the Thai AIDS response progress report sees the future focus not so much on financial and technical issues (as the relevant tools are already available), but rather on monitoring and improving clinical practice to ensure early detection of HIV and/or TB and prevention of leakage in the treatment cascade.

Whereas donor assistance to the health sector in Jamaica overall amounted to around 2% in 2009 (Chao, 2013), international funds covered nearly 70% of the country's HIV response in 2012/2013 (UNAIDS, 2014a).

According to Kenya's AIDS Strategic Framework (Kenya National AIDS Control Council, 2014), 68% of the national AIDS response is externally funded. The government allocation rose from USD 57.5 million (2006/7) to USD 153 million (2012/13). The challenge will be to secure this level and reduce external funding. In order to make substantial efficiency gains, strong M&E systems will have to be put in place both for up-to-date data on the HIV/AIDS epidemic in general and impact of all elements of the HIV response in particular.

Lack of reliable cost data for countries' HIV responses can pose problems planning for UHC—and allocative efficiency (Doetinchem et al., 2010). Particularly in contexts where healthcare funding is highly fragmented, the implications of moving towards a common UHC benefit package comprehensively covering HIV are difficult to predict. Costing services in a fragmented health system requires the consideration of different benefits, different modes of provision, and different contexts.

Regarding the challenge of HIV financing integration, it is important to consider that the complexity associated with the integration of HIV services into the "UHC" benefit package indicates additional resource requirements that may have a significant impact on overall costs, thus co-determining the decision on HIV financing integration. A comparison of the pre-integration benefit incidence of the general health system and that of the pre-integration HIV programme will indicate challenges of the (financing) integration that could result in additional resource requirements.

3.5.3 Country ownership of HIV programmes

Different levels of country ownership should be considered for the purpose of this report. An important aspect of successful integration of an HIV programme is country ownership of the programme. This is not automatically correlated with the share of domestic funding of the HIV response.

As a first step, the extent of country ownership of the HIV programme management should be established. Binagwaho and colleagues (2016) have identified prerequisites for achieving the latter: a political context of integration and decentralization, ownership through national coordination, participation and partnership, equity, efficiency, accountability, and integration of HIV care to strengthen the entire health system. This may not yet include the ownership of funds. The next step would involve the government or the identified UHC fund holders to have full control over the budget as envisaged under UHC. Hirschhorn et al. (2013) highlight the need to turn an externally controlled process into an internal process led by local actors. The degree to which local actors are in control of the HIV response may serve as an observation area for this dimension.

3.5.4 Logistics and procurement

Effective logistics, procurement and supply-chain management are critical in order to provide a wide spectrum of healthcare services to a population. The same applies to national HIV programmes that need to have the mechanisms in place to ensure the availability of antiretroviral drugs (ARV) as well as other necessary medicines, diagnostics, equipment and consumables for the HIV response.

Of the stakeholder groups involved in the supply chain for ARVs, donors have significantly influenced its setup through their policies on the selection of operational agents, product quality standards as well as tendering and procurement requirements. Two large donors providing financing for the global ARV supply chain are the President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). In 2011, their contribution to global spending on ARVs amounted to 51% (Ripin et al. 2014). As Ripin and colleagues (2014) highlight, the frameworks set by donors shape the emphasis of the supply chain. It may either be set up as a distributed, country-led model, where a country is free to manage the whole procurement process under adherence of donor requirements, or an integrated model, where the donor manages the supply chain management system. The latter may include pooled purchasing to allow for cost efficiencies through higher order volumes.

The need for increased supply of ARV in light of increasing patient numbers highlights the requirement for robust supply chain management in their routing treatment as part of HIV/AIDS moving towards being a chronic disease.

Looking at country specifics, the principal recipient of Global Fund HIV financing in Malawi has changed in order to allow for a

better management of funds. Where in the past this position was held by the National AIDS Committee, the Ministry of Health (public sector component) together with the two NGOs WorldVision and ActionAid (civil society component) now hold it as part of a dual track financing after irregularities necessitated a change. The supply chain is hence set up as an integrated system, allowing for efficiencies and enhanced accountability and transparency.

South Africa, in comparison, manages its ARV supply chain through the government system.

A detailed assessment would be required to establish the financing and management modalities of the respective ARV procurement arrangements in order to determine the implications on HIV integrability. The state of the procurement system for drugs is an important predictor of integration success, the object of focus being the broader health system.

3.5.5 Human resources

A complex field within the national HIV response is the delivery of specific HIV services such as ARV treatment, HIV counseling and testing (HCT) as well as a wide range of prevention services. One question to be answered in order to determine the integrability of these services would be: To what extent are HIV services already delivered as part of the existing health system?

The setup in each country differs greatly, which necessitates individual assessments mapping the current delivery system in detail. An example of an aspect of South Africa's HIV service delivery shall serve as illustration of the complexity: In order to provide sufficient human resources as part of the country's HCT campaign, approximately

8,000 lay counsellors were trained to deliver counseling and testing services. They are not employed through the Department of Health and a discussion is necessary how this aspect of the service delivery, one among many others, would be integrated into the wider system of healthcare delivery (Mwisongo et al. 2015).

3.5.6 Facilities

HIV programmes across different countries used to rely on facilities separate from general healthcare facilities for HCT and antiretroviral treatment (ART). In recent years, this has become less prevalent. Still, there are significant differences regarding the integration of the HIV response into the general healthcare infrastructure. Utilisation of facilities and infrastructure, including associated spatial issues, is an observation area of relevance to the degree that service integration promotes financing integration.

3.6 Health system — observation areas and indicators

3.6.1 Programme — system — UHC

Whilst the integration of HIV programmes is not a necessary condition of UHC achievement, UHC as an overarching objective should guide the efforts of integrating vertical programmes into the general health system. UHC itself has become overburdened with objectives: The concept has been described as a key instrument to enhancing health, social cohesion and sustainable human and economic development (UN, 2012). As a (health) policy goal, UHC favours a health system with a maximum risk pool and a comprehensive benefit package of necessary and effective healthcare services where out-of-pocket payments are limited

to a minimum. Inclusive coverage implies that the utilisation of health services reflects health needs.

In order to operationalise UHC for the purposes of informing the design of an integration typology, we restrict ourselves to the concept's essentials. There is neither an explicit definition of UHC nor a clearly outlined pathway towards its achievement; UHC is best characterised by its aims and objectives. In order to ensure the effective pursuit of the objectives of equity in the use of quality health services as well as of universal financial protection, observable prerequisites that need to be in place. The core feature of a UHC system is population coverage. The UHC paradigm foresees the maximum number of people to be covered with quality health services. While pooled funding is a requirement in the light of the broader distributive goals as well as efficiency objectives, UHC does not necessarily imply a single all-encompassing scheme.

UHC requires certain arrangements to be in place that ensure the achievement of intermediate objectives (McIntyre & Kutzin, 2016), i.e. specific allocative and distributive goals as well as good governance. Monitoring the achievement of these objectives is methodologically challenging, yet the arrangements supporting the objectives are very well understood. For a country moving towards UHC, it will be important to formulate and refine the UHC intermediate objectives. These objectives determine the envisaged pathway towards UHC.

Health financing arrangements can be designed based on the intermediate objectives. Financing arrangements are ideally described based on three functions; purchasing, pooling and revenue raising (Kutzin, 2001). Beyond the health financing structures, the key prerequisite for making these structures work in the interest of UHC

is financial management capacity. Examples show that systems may fail to attain set goals despite the implementation and institutionalisation of appropriate structures merely due to lack of capacity in financial management.

Importantly, the HIV response has contributed to innovating health service delivery and funding in many countries. Comprehensive intervention and service delivery packages have been defined that should be funded through the general health systems. Often, multi-sectoral costing methods and tools support the delivery of comprehensive HIV services (Ball & Tinasti, 2014). In some contexts, HIV programmes could serve as a vehicle for innovation in the field of financial management.

The intermediary UHC objectives require delivery mechanisms to work effectively and to encompass all geographic areas and socio-economic strata. Delivery structures comprise physical infrastructure, including facilities, human resources, and systems related to logistics and procurement.

Lastly, good governance constitutes the very foundation of UHC and is most likely its most critical element. Allocative and distributive goals in the health system will only be achieved if coherent decision making, principles of participation, accountability and information are enshrined in a country's health system strategy and implemented in its routines across stakeholders and structures.

3.6.2 Financing

Ensuring financial protection against catastrophic healthcare costs, a key objective of UHC, requires that certain health spending targets are met, although there is no "magic number" (Jowett et al., 2016). The sufficiency

of funds for the achievement of certain health targets as such is not a desirable indicator of progress towards UHC. This becomes obvious when considering a variety of countries with comparable levels of per capita health spending.

The disaggregation of health financing systems into their functions of revenue collection, pooling and purchasing (Kutzin, 2001) is a meaningful exercise towards the informed development of a strategy for HIV financing integration (R4D, 2014). The financing functions constitute observation areas in the logic of the presented typology.

Financial management capacity forms another important area that provides insight into the progress towards UHC and that is both an enabler of UHC as well as an indicator of progress as such.

Sources of funds

Health systems are financed from different funding sources. Some systems may be predominantly tax-funded, others may be predominantly financed via earmarked mandatory contributions. However, all health systems are mixed systems, as they are always financed through several sources. Apart from taxes and earmarked contributions, voluntary insurance contributions and out-of-pocket payments can contribute to funding health services. It is therefore critical to distinguish between mandatory and voluntary prepayment. In many low- and middle-income countries, donor money plays an important role in the finance of health and social services. The role of external funding differs between vertical programmes and general health services: Two-thirds of funding of the HIV response in sub-Saharan Africa is external, whilst more than two-thirds of general health expenditure is financed from domestic sources (UNAIDS, 2012).

The sources of funds constitute an important area of observation with a view to the integration of HIV financing. The relative contribution of funding sources as such is less relevant than the history and development of the shares of funding sources. The evolution and constancy of the financing mix may serve as proxies for stability of the system and the degree of UHC achievement. Existing levels of integration need to be considered.

The efficiency of revenue collection is another observation area: Revenue generation is a reflection of the maturity of the system as a whole. There are no straightforward guidelines for action that may result from observed financing incoherence, but there are always alternative suitable pathways towards an effective financing mix in any particular country context.

Pooling

In order for HIV financing to be successfully integrated into the UHC framework, the degree of fragmentation of risk pools within and across a country's existing financing arrangements becomes an indicator of readiness.

Pooling is a critical observation area not only on the side of the general health system, but also on the side of the current HIV response where funds may be pooled or not across different sources. The degree of pooling will have to be taken into account in any assessment and in designing an appropriate policy response.

When it comes to pooled funds for health, it is important to assess both the degree and type of fragmentation of risk pools. The type of fragmentation determines the appropriate strategy towards distributive justice within the healthcare system. In principle, neither the existence of separate public and private funds nor the occurrence of a multitude of

otherwise distinguishable funding entities as such poses a barrier to UHC, given that a larger pool can always be simulated, e.g. by means of a risk equalisation mechanism. The overarching regulatory framework determines the limits of pooling.

The concept of pooling of resources does not imply that countries should be able to completely fund their HIV programmes from domestic sources, as the incorporation of donor funds constitutes an option that may be considered in certain cases. This aspect highlights a need to carefully align the financing functions with a view to service delivery under a benefit package that corresponds to the health needs of the population. In order for this type of pooling to be sustainable, the allocation of funds towards services requires a stringent set of allocation criteria and mechanisms agreed between all relevant stakeholders.

The strategy for guiding the integration of HIV/AIDS financing into "general" health financing will be moulded based on the degree and form of pooling in the health system.

Purchasing

The mechanisms of transferring pooled resources to providers of general health services form part of the framework into which HIV financing is to be integrated. The degree of fit between purchasing practices within a country's HIV response and the general health system's purchasing framework determine the integrability of HIV financing and thus the integration dynamics towards UHC.

In the analysis of purchasing as a determinant of successful integration, the link between the financing dimension and the delivery dimension becomes most obvious. The effective delivery of health services covered

by the benefit package should be supported by the purchasing mechanism.

Purchasing describes how providers of quality health services are paid. Different payment mechanisms favour different modes of delivery. Capitation at the primary care level, for example, does not incentivise the preferred provision of specific services or impact on the mode of delivery. Incentives to increase quality of care in a particular area are occasionally introduced as monetary rewards in the form of results-based funding.

These considerations are particularly relevant when it comes to payment for HIV services that tend to be particularly resource-intensive. Within the overarching system of provider payment, an incentive structure ought to be considered that ensures the provision of HIV services at agreed standards of quality.

(Public) Financial management

Solid financial management capacity is a prerequisite for building and reinforcing the financing functions as well as for controlling the fiduciary risk within the health financing scheme (Musango et al., 2012). Financial management capacity at the different levels should include the skills in using resource tracking mechanisms (including a good understanding of, say, National Health Accounts) as well as M&E tools, skills in epidemiology towards analysing the disease burden, and skills in applied (health) economics in order to determine the cost-effectiveness of certain interventions or to apply resource-tracking tools.

A crucial determinant of integration feasibility and success is the financial management capacity at different levels within the health system. Again, financing cannot be considered separately from service delivery: The delivery of HIV-related services, such as

HTC or ART, requires sophisticated resource management and planning.

In principle, the structure and quality of financial management within the health system determine mode and speed of the integration process. Financial system indicators should capture the availability of utilisation and costing data across different levels of the system, as well as the possibilities of tracking funds. Financial reporting and financial M&E within the health systems are reportedly weak across case study countries. Different health systems may determine a different locus of control for managing and budgeting resources for HIV-related services. Integration requires significant capacity in (public) financial management at decentral levels.

The relevance of public financial systems and financial management capacity becomes obvious if within the same health system regionally authorities demonstrate different levels of service provision due to differences in management capacity, including costing, budgeting and forecasting skills. The South African example shows, for example, that some provinces with good public financial management (Gauteng, KwaZulu-Natal, and Western Cape) manage the integration of HIV services into general health services very well by using conditional grants that are earmarked for HIV/AIDS to strengthen primary health care (PHC) systems—in quite different ways.

South Africa also serves as an example for a number of countries where building management capacity at the primary care level has been fundamentally neglected. Tracking PHC expenditure in South Africa is a significant problem that leads to huge inefficiencies, fostered by the possibility of the “absorption” of PHC into voted funds, “provincial equitable shares” (PES), which can be spent without many rules attached and without stringent reporting requirements.

Realities at the country level illustrate the capacity strengthening needs in the field of public financial management that are a precondition of realising the intermediate and longer-term UHC objectives. Further, any phased integration of HIV financing into the health system requires thorough planning on the basis of proper health accounting.

Here, expenditure by financing and revenue mechanisms, expenditure by inputs, and—ideally—expenditure by beneficiary ought to be available in a timely manner. The analysis of these data should routinely inform budgeting and target setting.

3.6.3 Delivery Facilities

The degree to which HIV services are provided in general health facilities is a reflection of service integration. While there have been concerns that integrated healthcare facilities might reduce access to HIV prevention, treatment and care due to stigma, and that lack of confidentiality at general healthcare facilities might lead to increased marginalisation of PLWH, the implications of HIV-related stigma are complex enough and also prevent people from utilising local specialised HIV facilities. In Ghana, where specialised facilities exist, the avoidance of local facilities is a well-known problem. In South Africa, the number of stand-alone ART or VCT clinics has been reduced dramatically as the health system has moved towards service integration.

There is a need to assess the capacity of general healthcare facilities to adequately cater for all patients—including HIV patients. Quality management ought to be strengthened alongside integration, as the system moves towards UHC.

Health workforce

In many countries that have embarked on the path towards UHC, human resources for health (HRH) form a bottleneck. In many countries, namely in Sub-Saharan Africa, the dilemma is twofold: Firstly, the public sector wage bill in health has grown significantly over recent years; secondly, qualified health staff is not available in sufficient numbers. Regarding the wage bill, there may be strategies to improve efficiency in the management of spending on wages, salaries and pension.

Regarding the lack of critical health personnel, there are no short-term solutions.

As per the WHO's definition the health workforce comprises "all people engaged in actions whose primary intent is to enhance health" (WHO, 2006). Apart from a ubiquitous shortage of qualified doctors and nurses required in order to ensure that health services are available at an acceptable quality—a key attribute of UHC—, there is also a lack of health managers, i.e. qualified administrative staff with skills in the management of health services, including financial management. It is crucial that national HRH strategies take into account the specific requirements associated with the provision of HIV services.

The superior qualifications of dedicated HIV service providers as well as their often higher salary levels can pose significant barriers to HIV integration. Furthermore, these strategies will need to spell out the potential requirements for the provision of specialised services by specialised staff within facilities across levels of care. These considerations and the overall scarcity of health workers in many countries may be a strong argument in favour of prioritising HIV control and postponing integration.

Logistics and procurement

In pursuit of UHC, a health system requires a sophisticated procurement system that ensures the continuous availability of reasonably priced drugs and supplies. A procurement system may be built around a national tendering process, such as in South Africa, which has clearly demonstrated its strengths in the procurement of ARVs. A procurement system may also be designed as a decentral system involving a multitude of (private) actors fulfilling different functions along the value chain. The latter approach is more reflective of a rather mature system and requires a tight regulatory framework that sets incentives to reward quality and efficiency. As discussed in Section 3.5.4, the harmonisation of procurement of medicines and commodities requires careful consideration as HIV services and finances are being integrated into the general health system. Separate logistics and procurement are commonly far more effective in the field of HIV response than in the general health system. Integration ought to be postponed wherever integration may jeopardise the effectiveness of this aspect of the HIV response. Yet, as elsewhere, integration may increase efficiency by dismantling redundancies.

3.6.4 Coverage

Maximum population coverage is the key feature of UHC. There is a close conceptual link between the question of population coverage with services and the question of pooling under the financing dimension, as the precise objective is to maximise population coverage by pooled funds. Coverage should therefore incorporate the concepts of risk-related and income-related cross-subsidies, while the universal cover does not discriminate by socio-economic or health status. Within

the typology matrix, the percentage of population covered by pooled funds would serve as the obvious indicator for population coverage.

A recent report on monitoring progress towards UHC (WHO, 2015) uses the percentage of people living with HIV who are receiving antiretroviral combination therapy as one of the indicators that measure service coverage as the key aspect of UHC. Alternative approaches are conceivable as observation areas.

Co-payments are best avoided in the design of UHC, as they tend to constitute a disproportionate burden on those with limited ability to pay. There are certain exceptions where co-payments may be used to improve health service utilisation. This is the case when co-payments can be used to introduce a disincentive to override the referral system or wherever care for minor ailments is particularly price elastic. An indicator capturing whether any existing co-payments are appropriately differentiated by socio-economic status should be included in the typology matrix.

3.6.5 Governance

Governance describes the coordination of a social system and is a dimension of key relevance for an HIV/AIDS integration strategy. The processes of both service and financing integration pose problems if their governance paradigms differ. This may be the case if there is hardly any overlap of the governance principles of national HIV programmes with those of the general health system in terms of structures, institutions and processes. The common approach of Country Coordinating Mechanisms (CCMs) which feature multisectoral membership is an example of a well-established governance mechanism.

Governance for UHC, e.g. the governance structure for a national health insurance strategy, is mostly still in the planning or very early implementation phases. The organisation of a sustainable healthcare system by a government can be considered a major achievement, irrespective of the political system or agenda, of GDP levels or population characteristics. While the degree of success of any healthcare system is dependent on the laws and regulations, in short, the policy that frames it, there is also a considerable need for skilled management of the system. This management of a healthcare system by the public sector is often referred to as governance and encompasses the “how” of the healthcare system rather than just the “who” and “what”. Representation of stakeholders from different parts of society is frequently neglected along the path towards UHC.

If governance is seen as the “how” of a policy system, it could be described as a set of characteristics or values. One of the characteristics that define a form of governance is political accountability, which is also reflected in the notion of stewardship; the degree to which those in power behave in ways which are considered acceptable and can be sanctioned if they fail to do so. Accountability has become the major defining factor of governance in many realms and ought to play a key role in health reform with UHC as a goal.

Governance as a concept of the social sciences has, developed in recent years from a system of hierarchies and bureaucracy towards a more open, embracing system of markets and networks (Bevir, 2011). In this sense, governance principles have become more similar to management principles. Dodgson et al. (2002) point out how health policy has been more and more influenced by global stakeholders, ideas, funders and products, making health governance in every country dependent on what is going on globally. The processes of integrating HIV

services and HIV financing into the general health system bring this aspect to the fore. A challenge will be to mediate between potentially different governance principles of the respective spheres—the specific disease programme and the general health system.

Within the governance paradigm, supervision of the health system constitutes both an essential component and a prerequisite for successful integration. The regulatory framework of a UHC scheme describes the system of checks and balances and ensures the democratic legitimisation of any stakeholder action within the system. Certain consistent principles must hold across the health system building blocks in order to ensure stability of the system. These principles should include a purchaser-provider split, relative autonomy of certain key actors (e.g. tertiary hospitals), or common modes of conflict resolution between stakeholders (e.g. arbitration panels). Any additional services or institutions to be integrated into the system must adhere to the same principles.

Good governance leads to an efficient and fair distribution of public goods within a society. In this vein, the effectiveness and the degree of equity reflected in the (emerging) health system can be considered indicators of good governance.

An integration strategy needs to be built on reliable and transparent data. As other policy measures, each element or step of the strategy must be evidence-based.

Strengthening data management may therefore form an indispensable first step for many countries.

3.6.6 ICT infrastructure

A health system’s ICT infrastructure is an important enabler of UHC and can be expected to facilitate integration of additional

services. The reality in numerous countries is that vertical programmes generate their own data that are not accessible for other health information systems in the country. Data silos are common. Vertical programmes are often characterised by excellent systems for collecting epidemiological information on the relevant variables. The requirements of integration planning indicate that “integration” of the ICT infrastructure would be an area in need of particularly urgent action, as the costs of inaction are high.

The expansion of coverage both in terms of the population and in terms of healthcare services requires comprehensive data management capacity. Fragmented risk pools can only be overcome and new benefits can only be integrated effectively if high quality beneficiary and service data are routinely available.

Key health system work processes require appropriate ICT support. Work process groups include: beneficiary management, claims management, provider management and accounting (PATH, 2012). The ICT system must provide information that—inter alia—allows the identification of target beneficiaries for the HIV benefit under UHC.

The ICT systems within a country’s health system should be interoperable. It may not be necessary at the early stages of the

journey towards UHC to ensure that the ICT infrastructure functions as a full cost accounting system but basic information on service costs must be available for management purposes at all times.

The typology matrix ought to include indicators to capture a country’s ICT progress. More recently, there has been increasing awareness of the multidimensional differences in the expectations for and values around data (Fiore-Gartland & Neff, 2015), implying that beyond technical interoperability of ICT systems there will be the need to ensure that data collected and analysed to effectively and efficiently manage a national health system are both meaningful and actionable within and across subsystems, such as hospital information systems, broader health information systems (e.g. DHIS2) and management information systems (including HR management systems).

ICT systems may develop asymmetrically across the identified domains. A comprehensive insurance management information system may be introduced with a focus on the financing domain, thus facilitating the integration of HIV financing into the general health system. In consequence, the set-up of the ICT infrastructure also influences the time path of the integration strategy.

4 Discussion: Integration—not an end in itself

Integration processes are complex and commonly do not happen as coherently managed projects but are realised as—often incomplete—pieces. In order for integration to work towards the UHC objective, the processes across the domains need to be carefully planned and coordinated based on the respective objective and the expected benefits. The support of effective integration strategies should routinely be

considered in the development of health system strengthening measures.

Integration processes happen within the different identified domains, e.g. the delivery of health services or the financing of these services. The domains of integration are structurally linked. Nonetheless, integration can move along different trajectories and at different speeds across these dimensions.

Among different “vertical” programmes, HIV programmes in many countries are particularly well established, well designed and complex. As effective and often efficient health programmes, they feature service structures that are generally far better developed than those of general health services—with sound governance structures. The integration of programmes into the broader health system therefore poses challenges at different levels.

Integration is not a necessary condition for the achievement of UHC. UHC should therefore not be the key argument for pursuing integration, yet integration may catalyse the achievement of UHC. The incorporation of HIV and AIDS-related health services into a country’s broader structures of health services provision contributes to the idea of a common benefit package within the system that is as comprehensive as possible given the resource constraints that apply. Integration puts the respective services in direct competition with all other services, as they will be subject to the same regulatory framework, e.g. regarding their status within the benefit package that may be designed based on institutionalised priority-setting mechanisms. Further aspects support the UHC goal: Once integrated, capacity development around these services would more immediately benefit the wider system, for example.

There are a multitude of hurdles along the pathways of the integration of HIV services and of the integration of HIV financing with a view to UHC. This report has suggested that domain-specific integration pathways are at least partly interlinked and require structured and coordinated planning. The preceding sections have highlighted determinants of the integrability of HIV services and financing into national health systems. They have argued in a normative manner for certain prerequisites to be in place, including, for example, an appropriate M&E regime.

The typology matrix can guide the planning process. Integration requires a phased approach. It is unlikely that any country’s path towards integration can be determined “freely”, guided solely by evidence. Health reform, the overarching process determining progress towards the UHC objective, has shown to be highly path dependent (Sen & Govender, 2015).

Moving along the path of integrating HIV financing into a health system en route to UHC would ideally require careful planning on the basis of an assessment of needs (Galárraga et al, 2013). In planning integration, the delivery side of the HIV response ought to be considered simultaneously with the financing side. There are arguments to support very close coordination of services and financing integration. As, for example, expressed with a view to the costing exercises of the Fast-Track approach (Stover et al., 2016), a thorough understanding of cost components of the services to be incorporated into the UHC benefit package, the needs-based spatial allocation of resources, and an understanding of costs at the facility level would need to inform cost-effective service integration. Unless the two integration processes are aligned, financial tracking (expenditure tracking) and, by extension, costing and planning become more difficult. Thus HIV service integration and HIV financing integration are somewhat linked, even if not fully interdependent; the health system’s journey towards UHC brings the two integration processes closer together. A large number of interfaces may exacerbate integration within a single domain. Yet practice may require deviations from the ideal in that there will often be the need to separately address the processes of financing and service integration.

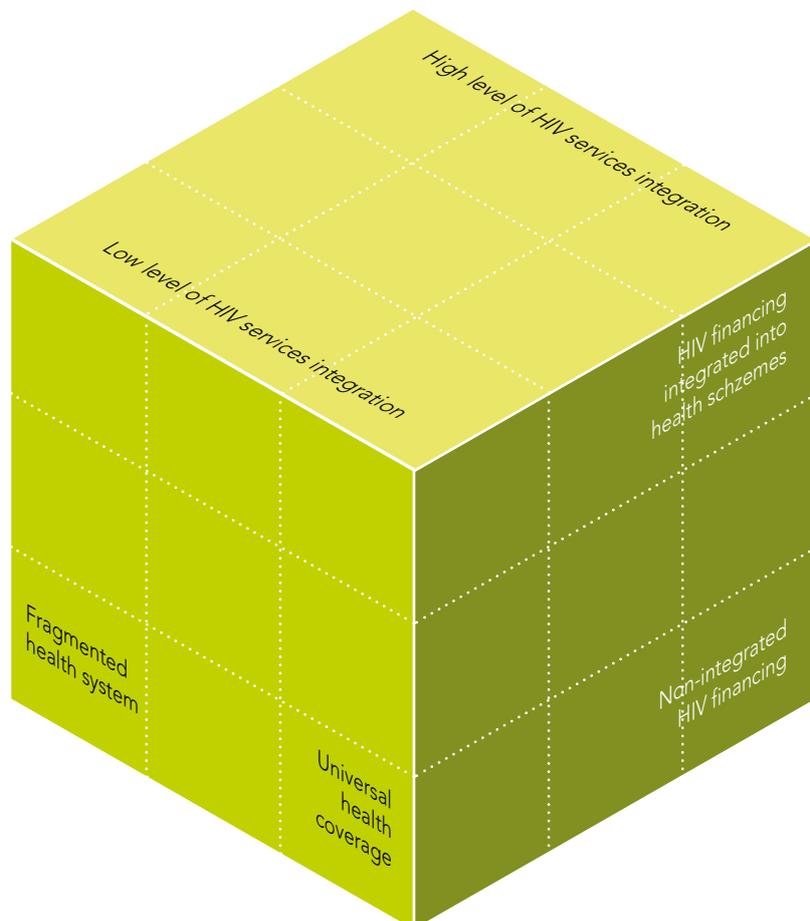
Ultimately, countries’ different approaches to integration and their simultaneous progress towards the UHC goal could be depicted in a multi-dimensional diagram. We have limited the presentation to the

two “most obvious” domains of integration, financing and services. The three axes of the three-dimensional diagram (Figure 4) indicate: Progress towards UHC or “UHC achievement” (x-axis), progress towards HIV financing integration (y-axis), and progress towards HIV services integration (z-axis). This cube is meant to illustrate the complexity of the tasks of planning and benchmarking integration. It serves as reference space for the discussion. The trajectories of individual countries as they move along the cube’s dimensions—through the solid—are unique. Their respective positions largely defy any ordered classification or ranking.

The tripartition of the cube’s axes is random but can be taken to correspond with the use of progress grading by means of “traffic lights”. Referring to countries’ positions in terms of the resulting 27 smaller cubes may support benchmarking by means of the typology matrix. The small cube in the very centre of the structure would denote “yellow-yellow-yellow”. Thinking in terms of the cube allows for the realisation that there may be progress along the two domains of integration that does not move a country closer towards the UHC objective that can only be assessed with the system as unit of analysis.

T. 6

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The cube's axes do not have predefined endpoints. As discussed, HIV services would not be fully integrated into general health systems; correspondingly, there will always be financing of certain HIV services, e.g. educational services, outside of the health system. The question as to how, in the future, middle-income countries in particular are going to finance the response to HIV as a social issue beyond health is not addressed by the framework presented here.

Considering the simultaneous assessment or monitoring of different domains, mapping one domain against the other could provide simple benchmarks to inform planning. For example, progress of service integration could be mapped against financial integration (HIV-specific financing). Information would be available from the respective National AIDS Spending Assessment (NASA). An indicator of "integration congruence" could be a simple ratio. Depending on the precise objective of the exercise, the order in which domains are integrated in specific country contexts may also constitute a relevant characteristic of the integration process.

Critics of hasty integration point out possible conflicts due to rules for priority-setting. Indeed, the typology discussion does not pre-empt a decision in favour of integrating AIDS financing. Its normative claim is valid

within the concept's boundaries. Both the argument in favour of vertical programming in the light of the UNAIDS Fast Track agenda, expressed by those who prioritise an intensified AIDS response, on the one hand, and the fear of those who believe HIV might crowd out other PHC needs upon full integration, on the other hand, cannot be remedied by the approach presented in this report. Rather does the framework suggest thorough planning for integration, once a country has decided in favour of integrating HIV financing with a view towards a strong, efficient and equitable health system.

In practice, the prerequisites and the risks of integrating HIV programmes differ significantly between countries. There will thus be country cases, for example, where integration at the level of resource mobilisation and pooling will be recommendable as an important step towards achieving UHC, but purchasing and service delivery may have to explicitly account for existing access issues relating to key populations and may therefore defy integration at the current stage. In this context, the role that NGOs play in the provision of services to key populations, for example, needs to be carefully considered in a country's integration strategy. Furthermore, funding of services for key populations from domestic funds poses an area of concern in some countries as donors reduce their funding.

5 Conclusion

There has not been a systematic reappraisal of integration as a health policy project that requires meticulous management and appropriate governance alongside the process. For any envisaged integration of a vertical programme, initially the motivation and intended effects must be spelt out and must guide the time-bound design of the

process. At that juncture, the stakeholders' awareness must be raised of structural drivers with a bias towards vertical goals.

Integration does not imply an all-encompassing effort to erase verticality; it rather means an evidence-based incremental approach that can be conducted separately

by domains. Integration can be phased within and between domains: Within a domain, such as service delivery, the dimensions health workforce and logistics, for example, can be addressed separately, while at the same time integration within one or the other additional domain may have been initiated - or not.

Despite the universalist character of the concept, UHC does not require complete integration across all domains of a vertical programme. Rather there may be an optimum level of integration in order to ensure effective coverage of need with priority interventions. If there are strong arguments to support the premise that integration in order to satisfy a UHC agenda may compromise an intensified HIV response, there are a few initial points of guidance that serve to initiate the further engagement with the typology:

Countries that feature a generalised HIV epidemic and find themselves in the planning or early implementation stages of national policies towards UHC must develop an integration plan that ensures a constant quality of HIV service provision, taking into account the appropriateness of the dedicated health workforce as an element of general health services, the appropriateness of facilities and the effectiveness of required logistics and procurement systems. The integration of services should be designed as a phased process with risk mitigation strategies in place. With a view to financing integration, the separate financing functions need to be designed to cater for the specific requirements of the HIV response, e.g. provider payment mechanisms ought to incentivise a continuously high HIV service quality.

While the two spheres of integration should be coordinated, they do not necessarily have to follow the same time paths. A key prerequisite of HIV integration towards UHC

is the assurance of the availability of high quality data based on a comprehensive ICT infrastructure. The speed of integration would thus be guided by evidence.

The processes of moving towards UHC, the integration of HIV services and HIV financing integration are shaped by a country's economic context. Whereas low-income countries may embark on planning for UHC, there are few arguments in favour of embarking on integration planning, given the short-term resource requirements of an effective AIDS response. Integration would be premature. In no category of countries there appears to be any gain from prioritising the integration of HIV services directed at marginalised key populations or respective funding under a UHC agenda.

The typology introduced here can help structure a knowledge base around the integration of vertical programmes. The compilation of such a knowledge base must take into account that there are lessons to be learnt from vertical programmes which must not get lost in the context of integration, e.g. around well-functioning procurement systems.

The typology framework ought to form the basis for the development of systematic guidelines for integration in order to ensure that the integration strategy fits the objectives of integration, e.g. the removal of redundancies, and the setting. In countries that embark on the integration of HIV programmes with the broader health system, rigorous strategic planning processes need to be initiated. The typology framework will guide benchmarking as well as monitoring and evaluation. It may also serve as a basis for efficiency analyses.

The details of integration must be discussed and spelled out. An international discussion

using case studies of integration as far as available should inform a toolkit for designing and implementing country-specific integration processes.

The discussion of the role of integration in a country's health system is an important contribution to the post-2015 mainstreaming of UHC.

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GHANA

HIV integration into efforts for UHC

Country context

HIV prevalence in adults in Ghana lies at 1.6% with a high percentage (55.6%) of women being affected (UNAIDS, 2015b). Life expectancy at birth lies at 62 years (WHO, 2015). This improved from 57 years at the peak of the HIV epidemic in 1995 (Roser, 2016).

HIV/AIDS ranks fifth among the causes of death in the country (4.9%), behind lower respiratory infections (10.7%), stroke (8.7%), malaria (8.3%) and heart disease

(5.8%). Among the leading causes of DALY it even ranks at second position due to the wide spread of malaria (WHO, 2012).

Ghana is classified as a lower-middle income country with a high inflation of 17% and 24% of the population living below the national poverty line (World Bank, 2012). The country's economic growth is forecast at approx. 7% per year (World Bank Data).

Health system

The Ministry of Health is responsible for the health system. It appears well organised and transparent, with many official documents readily available on their website: <http://www.moh.gov.gh>. The ministry is divided in different directorates such as policy, planning, monitoring & evaluation; human resource for health development and finance, among others.

Ghana's health financing policy 2015 outlines the different financing functions: revenue collection, pooling of funds and purchasing (GoG, 2015)

Revenue collection: The health sector is financed by various sources: Government of Ghana revenues (public funds), private funds from companies and households for both pre-paid voluntary premiums and out-of-pocket payments, and international funds from donors/development partners. These revenues are sub-divided into: 1. general revenue for the health budget; 2. targeted revenues for NHIS; 3. local government revenue.

The National Health Insurance Authority (NHIA) under the MoH manages the National Health Insurance Fund

(NHIF) which has six main sources of funding to operate the NHIS:

1. The National Health Insurance Levy (NHIL) which is a 2.5 percent value added tax (VAT) levied on selected goods and services
2. 2.5 percent social security deductions from formal sector workers managed by the Social Security and National Insurance Trust (SSNIT)
3. GOG annual budgetary allocations proposed and approved by parliament to the NHIF
4. Accruals from investments of surplus funds held in the NHIF by the National Health Insurance Council (NHIC)
5. Grants, gifts and donations made to the NHIF
6. Premiums/contributions paid by NHIS subscribers

All Ghana residents except military and police are eligible to enroll in NHIS. As of 2011, coverage of the NHIS stood at 33.4 percent.

Fiscal space for health: The MoH states that large increases in public spending on health are not very easy to achieve. However, it aims at gradual and continuous increases in GoG revenues for health. The focus should

be on gradual revenue increases combined with a focus on expenditure management, efficiency gains and better cost containment to enable coverage expansion.

Pooling: Pooled at national level are: General revenue allocated to the MoH through the health budget (Funds are distributed to health facilities at all administrative levels through MoH programmes and services) and NHIS revenues from VAT and SSNIT.

Purchasing: Coverage and benefits as well as provider payments are determined in details for an effective transfer of pooled funds.

Challenges were identified with regard to health financing. For example low fiscal capacity persists despite the governments commitment to health through a higher than average prioritization. Furthermore, the relationship between government general revenue for health budget and NHI levies is trying and affects finding the best balance between pooling and decentralisation in order to maintain and increase equity and financial risk protection as well as including donor funding in pooling arrangements to the extent possible. In addition, the financial stability of NHIF is jeopardised under its existing design and policies including coverage rules, benefit package, and provider payment systems due to expenditures increasing faster than revenue generation.

National HIV programme

The Ghana Aids Commission was set up under the Ministry of Health (MoH) with the mandate to provide support, guidance and leadership for the national response to the HIV and AIDS pandemic.

Alongside the Ghana AIDS Commission, the National AIDS Control Programme plays a major role. As the technical lead agency of the MoH in the health sector's response to HIV and AIDS it manages the Global Fund grant, which is the major funder of the response. In terms of financing the response overall, Ghana is largely dependent on external funding, with only 15% of resources being financed domestically.

Integration of HIV financing has been an objective of health policy in Ghana. In the country's National HIV

and STI policy the government highlights the need to ensure that strategies, resources and inputs for HIV and AIDS are integrated within the health system to enhance overall efficiency (Ghana AIDS Commission, 2013)

National HIV/AIDS, malaria, and TB programmes are almost fully integrated with the overall health system. However, activities of the HIV response funded by the Global Fund are only moderately integrated with the national disease programmes. This highlights a lack of clarity of responsibilities between the principal recipient of the Global Fund (MoH) and the primary implementer of the grant activities (the Ghana Health Service) (Atun, 2011b).

Towards an integration strategy

Integration plans for Ghana's HIV response are well underway. Overall, the HIV response is fragmented. Given limited resources within the overall health system and limited fiscal space at moderate annual growth rates, the creation of capacity for integration beyond the

current stage requires concerted action of all relevant stakeholders. A possible integration plan ought to envisage advancing in incremental steps with decreasing donor funding, while ensuring the achievement of the set targets.

JAMAICA

HIV integration into efforts for UHC

Country context

HIV prevalence in adults in Jamaica lies at 1.6% (UNAIDS, 2015b). Life expectancy at birth lies at 76 years (WHO, 2015). The country has a similar development through the peak of the HIV epidemic as Thailand with relatively stable life expectancy throughout.

HIV/AIDS ranks fourth among the causes of death in the country (7%), behind stroke (16.5%), heart disease (11%) and diabetes (10.8%) (WHO, 2012). It ranks even lower, at position seven on the lead table of causes of DALY, with cardio-vascular diseases and diabetes as well as neuro-psychiatric conditions and other non-communicable diseases topping the table.

Jamaica is classified as an upper-middle income country. Still, 20% of the population lives below the national poverty line (World Bank, 2012). The

country's economic growth is forecast to increase steadily over the next three years to 2.6% (World Bank Data). However, this has to be seen in light of a country being highly indebted.

Jamaica's overarching national development plan Vision 2030 places its national outcome of a healthy and stable population high on their priorities.

Equally, Jamaica is committed to the improvement of gender equality on policy level, as expressed through signing of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Furthermore, it passed two policies in 2011 for advancing gender equality: the National Policy for Gender Equality and the Declaration of Commitment to Eliminate Stigma, Discrimination and Gender Inequality Affecting Jamaica's HIV Response.

Health system

The Ministry of Health (MoH) oversees the health system and is responsible for policy, planning, regulating and purchasing functions. In 1997 the system was decentralised under the National Health Services Act, which meant health service delivery lies in the hands of four Regional Health

Authorities (RHA) (Chao, 2013). The RHA manage a network of secondary/tertiary care facilities consisting of 24 hospitals including 5 specialist institutions and primary care facilities comprising 348 health centres, managed by the four regional health authorities (WHO, 2013).

The private sector plays an important role also, especially in the provision of ambulatory services and pharmaceuticals.

Health sector financing is ensured through public and private sources, where public funds are generated mainly through taxation (50%). The next biggest share is covered through out-of-pocket expenses (32%) followed by private insurance (12%), donor funds (3%) and the National Health Fund (NHF) which was established in

2003 (3%). The NHF is mainly financed through three sources: 1. special consumption tax charged on tobacco products with effect from April 14, 2008; 2. a payroll tax, which is collected in parallel with the National Insurance Scheme, which provides primarily for pensioner benefits; 3. special consumption tax, mainly from alcohol, petroleum, and motor vehicles (Chao, 2013). Donor assistance to the health sector overall amounted to only 2% in Jamaica in 2009. This differs significantly for the national HIV response (see below).

National HIV programme

The national HIV/AIDS response is located within the Ministry of Health, which oversees the National HIV/STI Programme (NHP). The programme involves a close collaboration with all government ministries, the tripartite team of government, employers and workers, the business sector as well as non-governmental organisations including faith-based entities (GoJ, n.d.).

The National AIDS Committee (NAC) was established in 1988 with the purpose to strengthen the multi-sectoral approach. As a non-governmental organisation it does this by advising the Minister of Health on relevant policy issues, involving all sectors of society in prevention efforts, acting as an umbrella and membership organisation and network on all issues concerning HIV/AIDS/STIs as well as providing a stable funding source for its activities (NAC, n.d.).

Moreover, it provides legal assistance to PLWH as well as advocacy services for legislative change and the reduction of stigma and discrimination (GoJ, n.d.).

The response is guided by the National Integrated Strategic Plan for Sexual and Reproductive Health & HIV 2014-2019 which aims to outline the ambition to achieve an integrated programme in support of the Sustainable Development Goals (SDGs) as well as the UNAIDS Fast-Track strategy to end the AIDS epidemic by 2030.

Overall funding of the HIV response is dominated by external funding, which accounted for 70% of HIV spending in 2013 in Jamaica (UNAIDS, 2014). Financing from the Global Fund seems unsure after 2018 as the country was identified as one to transition out of support (The Gleaner Jamaica, 2016).

Towards an integration strategy

In light of the high level of debt burden Jamaica faces, already the planned integration HIV and reproductive health currently presents a major challenge. Despite great achievements over the past decade in reducing the number of HIV infections, the HIV incidence of adolescent girls as well as MSM requires attention. These aspects may require increased attention

involving interventions outside of the health system. The economic framework conditions do not favour a stronger role of the general health system to support the Fast Track approach. Policy makers have reluctantly taken steps toward achieving UHC, while lack of appropriate governance mechanism suggests integration only at a modest level.

KENYA

HIV integration into efforts for UHC

Country context

With a HIV prevalence rate of 5.9% (UNAIDS, 2015b), Kenya is dealing with a generalised HIV and AIDS epidemic. The average life expectancy at birth of the Kenyan population is 63 years (WHO, 2016). During the peak of the HIV epidemic in 2000 life expectancy fell to 53 year, a drop by 7 years compared to the pre-HIV figure (Roser, 2016).

HIV/AIDS is still the leading cause of death (14.8%) in the country followed by lower respiratory infections (12.3%), diarrheal diseases (6.3%) (WHO, 2012). After maternal, neonatal and nutritional issues, HIV ranks second among the leading causes of DALY together with TB and malaria (WHO, 2012).

Despite the HIV prevalence in the country steadily declining, the number of people affected by the disease continues to increase (GoK, 2014a) leading to an increased financial burden on the country attempting to cater for the growing need for healthcare associated with HIV/AIDS.

Having had the status of lower-middle income country confirmed by the World Bank in 2015, Kenya has a

large share of the population (45.9% in 2005) living under the national poverty level. Its economic growth for the next year is forecast at approx. 6%.

Kenya's political will is expressed in its 'Vision 2030', a guiding paper developed "to transform Kenya into a newly industrialising, middle-income country providing a high quality life to all its citizens by the year 2030". This vision is built on three pillars, namely economic, social and political. The social pillar with its aim to create "a just and cohesive society enjoying equitable social development in a clean and secure environment" states Kenya's vision of an efficient and high-quality health care system with a devolved management of funds and health care.

The country's commitment to Gender equality is displayed through signing the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and launching a 'Gender Action Plan' aligned with the National AIDS Strategic plan. In reality, however, challenges and limitations still exist for the participation and representation of Women living with HIV/AIDS (UN Women, 2015).

Health system

Besides Kenya's 'Vision 2030' (GoK, 2007), the set up, administration and development of the country's health system is guided through key strategic documents such as the Constitution of Kenya 2010, which ensures every person's right to the highest attainable standard of health, which includes the right to healthcare services, including reproductive healthcare. It also established the devolvement of health functions to the counties. The national government mandate remains health policy formulation and coordination, capacity building and technical assistance to the counties and the national

referral health facilities.

Furthermore, the Kenya health policy 2014-2030 outlines the government's overall priority of the realisation of universal health coverage (UHC) supported by the health sector strategic and investment plan 2014-2018 and health sector human resources strategy 2014-2018.

Financing progress towards UHC is envisaged to be covered by multiple sources including the national and county governments budgets for the provision of health services, National Health Insurance Fund (NHIF)

providing health insurance for both formal employees (mandatory) and informal sector workers (voluntary), direct households' out of pocket expenditure (about 30% of the total health expenditure) and funds provided by development partners (about 30% of the total health expenditure) (GoK, 2016). Currently, 20% of the population are covered through the NHIF (18%) and private, micro-finance and community-based insurance providers (2%) to ensure access to high-quality health services, availability of essential medicines and the reduction of out-of-pocket payments (Mwaura et al., 2015). Access to NHIF on a voluntary basis is available at fixed premium of Kshs.500 per month as per the NHIF website.

Health services are delivered as part of a devolved healthcare system with responsibilities shared between national and county governments. The national government covers the higher-level responsibilities outlined above. The county governments cover county health facilities and pharmacies, ambulance services and the promotion of primary health care among others (GoK, 2010). Healthcare within the devolved system is organised in four tiers (GoK, 2014a) comprising of:

Tier 1: Community health care

Tier 2: Primary healthcare; including of all dispensaries, health centres and maternity homes for public and private sectors.

Tier 3: Secondary referral; including county hospitals, both government and privately owned, offering specific services shared among the existing county referral facilities to form a virtual network of comprehensive services.

Tier 4: Tertiary referral; including service units providing tertiary/highly specialised services (high-level specialist medical care, reference laboratory support, blood transfusion services, and research).

With regard to human resources, the WHO puts the critical threshold of health workforce density at 23 doctors, nurses and midwives per 10,000 people of the population (WHO, 2010). Kenya's provision of health staff lies at 13 per 10,000 (WHO, 2010) which highlights that the country's health sector human resources strategy is a necessary requirement for strengthening the health system as part of the move towards UHC.

National HIV programme

Kenya's commitment to combatting the HIV/AIDS epidemic is manifested within its general health policy. In order to ensure a coordinated response, the government established and oversees the semi-autonomous National AIDS Control Council (NACC). This arrangement is the government's attempt to overcome previous challenges in coordinating, financing and integrating the HIV response into the overall health agenda (GoK, 2014a). As part of the eight strategic directions formulated by the NACC, the current Kenya AIDS Strategic Framework (2014-2019) set four main objectives which encompass the reduction of new infections by 75%, AIDS related mortality by 25% and HIV related stigma

and discrimination by 50% as well as the increase of domestic financing of the HIV response by 50%.

In light of a domestic share of HIV funding of only 21% (UNAIDS, 2013), the government has set a steep goal. However, over the previous decade government allocation had already risen from USD 57.5 million (2006/7) to USD 153 million (2012/13) (GoK, 2014b). The challenge will be to secure this level and further reduce external funding. In order to make substantial efficiency gains, an emphasis is placed on strong M&E systems to be put in place both for up-to-date data on the HIV/AIDS epidemic in general and impact of all elements of the HIV response in particular.

Towards an integration strategy

HIV/AIDS absorbs a large share of public health expenditure in Kenya, which is characterized by a generalized epidemic with high HIV prevalence among key populations. Given Kenya's UHC vision that is reflected in its policies towards strengthening the NHIF implies an increasing integration of the HIV into the NHIF environment. Strategies outlining the future role of the NHIF, which currently covers only 20% of the population should formulate concrete steps in

this regard. The NHIF would hardly be in a position to fund treatment and care for those already living with HIV/AIDS. HIV integration in Kenya constitutes a key challenge for the ongoing reform of the health sector. Further technical analysis is urgently required. In order to realise the equitable and sustainable HIV response envisaged in the Kenya AIDS Strategic Framework, development partners will have to continue playing a strong role.

MALAWI

HIV integration into efforts for UHC

Country context

With a HIV prevalence rate of 9.1% (UNAIDS, 2015b), Malawi is dealing with a generalised HIV and AIDS epidemic of significant proportions. This includes a large percentage of women (55.1%) among those living with HIV (UNAIDS, 2015b).

Life expectancy in the country currently stands at 58 years (Roser, 2016), a significant increase by 12 years since the peak of the HIV epidemic in 1996.

HIV/AIDS ranks still top of the leading causes of death in the country by a wide margin (27.1%) followed by lower respiratory infections (8.6%) and malaria (6.3%) (WHO, 2012). This means HIV/AIDS also leads the table of leading causes of DALY together with TB and malaria followed by maternal, neonatal and nutritional issues as well as other infectious diseases (WHO, 2012).

As is the case in South Africa, in Malawi HIV/AIDS also greatly impacts on children's lives as expressed by the very high percentage of children living with HIV (8.6%) as well as the percentage of children dying due to it (12%) (WHO, 2012).

Malawi is ranked economically as a low income country with a high inflation of 21% and 50% of its population living below the national poverty level.

Its economic growth for the next year is forecast at approx. 4.5% on average over the next three years (World Bank Data).

The Malawi government has been implementing a decentralization policy since 1999. Accordingly, the Ministry of Health has devolved district level health services except HR management to District Assemblies. The full devolution of health service delivery can be expected to lead to more efficient and sustainable health outcomes.

Since the introduction of a sector-wide approach (SWAp) in 2004 in Malawi's health sector and the coordinated implementation of an agreed strategy, good progress has been made: 75% of PHC facilities offer the population essential health care free of charge.

A number of reforms have been proposed aimed at improving the efficiency and availability of resources within the Malawian health system. The introduction of a Health Fund and a National Health Insurance Scheme are expected to help finance universal coverage of an essential health package, making it available in both public and complementary not-for-profit health facilities.

Health system

The health system is currently guided by the Health Sector Strategic Plan 2011-2016. The Malawi government has been implementing a decentralization policy since 1999. Accordingly, the Ministry of Health has devolved district level health services except HR management to District Assemblies. The full devolution of health service delivery can be expected to lead to more efficient and sustainable health outcomes.

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National HIV programme

In 2011, the government of Malawi established the National AIDS Commission (NAC) as a public trust with the aim to provide overall leadership and coordination of the national response to HIV and AIDS. It acknowledged that the response to HIV and AIDS pandemic required a multi-sectoral approach and interaction between HIV and AIDS and broader issues of population, economic development and management, social service provision, culture, community development, human rights and gender.

The Ministry of Health has also a dedicated Department of HIV & AIDS which was established in 2001 in order to coordinate the biomedical HIV programme in Malawi. In addition, it is responsible for the national coordination of the management of sexually transmitted infections, prevention of mother to child transmissions as well as the implementation of the national voluntary medical male circumcision programme. Another area of responsibility is the oversight of M&E for all these programmes under the wider Central Monitoring and Evaluation Department (CEMED) of the Ministry of Health.

The HIV response is predominately financed through external funds. In 2012, HIV spending through external funding was at 92% (UNAIDS AIDSInfo).

One of the major funders of the HIV response in the country is the Global Fund. The funding falls into the remit of the Malawian Ministry of Health. However, notable in this context is that the principal recipient of Global Fund HIV financing in Malawi has changed in order to allow for a better management of the external resources. Where in the past this position was held by the National AIDS Committee, the responsibilities have now been transferred to the two NGOs, WorldVision and ActionAid after irregularities necessitated this change. Hence, the supply chain is set up as an integrated system managed by the donor, allowing for efficiencies and enhanced accountability and transparency.

In the government's Development Cooperation Strategy for Malawi 2014-2018, it commits to

1. analysing investment approaches and presenting an investment case for the National HIV and AIDS Response;
2. developing and adopting an effective and sustainable resource mobilisation strategy for the National HIV and AIDS Response;
3. ensuring effective and efficient governance, administrative and management systems for the National HIV and AIDS Response;
4. increasing accountability and transparency in the use of resources.

Towards an integration strategy

Given severe resource limitations in this low-income country, a dramatic shortfall of skilled health workers, lack of public financial management capacity, fragmented health information systems, governance issues within the country's HIV programme, and

policies towards UHC in the early draft stages, it will be years before an integration strategy may be realised in a meaningful way. Strong donor support is required to ensure that the existing health sector strategies are successfully implemented.

SOUTH AFRICA

HIV integration into efforts for UHC

Country context

With a HIV prevalence rate of 19.2% (UNAIDS, 2015b), South Africa is dealing with a generalised HIV and AIDS epidemic of unprecedented proportions. This includes a large percentage of women (57.1%) among those living with HIV (UNAIDS, 2015b).

During the peak of the HIV epidemic in 2009 average life expectancy fell to 52 years compared to the pre-HIV life expectancy of 62 years. It currently stands at 63 years (Roser, 2016). This is only one aspect that shows the immense impact HIV/AIDS has had on the South African population.

HIV/AIDS is the leading cause of death in the country by a wide margin (33.2%) followed by stroke (6.5%) and diabetes (5.7%) (WHO, 2012). In light of this it is only understandable that HIV/AIDS also leads the table of leading causes of DALY together with TB and malaria followed by cardiovascular diseases and diabetes as well as other non-communicable diseases (WHO, 2012).

Important to highlight is the fact that the disease affects not only women disproportionately. HIV/AIDS also greatly impacts on children's lives as expressed

by the very high percentage (17%) of children dying due to it (WHO, 2012).

South Africa is ranked economically as an upper-middle income country. At the same time the country has a high inequality in income distribution and over 50% of its population living below the national poverty level. Its economic growth for the next year is forecast at approx. 1% on average over the next three years (World Bank Data).

Through the Commission of Gender Equality, a constitutional entity, the government aims to promote, protect, monitor and evaluate gender equality. Furthermore, the country is providing an enabling environment in line with international conventions in order to protect and empower women. Nonetheless, persistent stereotypes, social norms and discrimination continue to disadvantage women and girls. Especially gender-based violence is "is a problem of pandemic proportions and gender disparities have continued to persist in South Africa" (UNFPA, n.d.). This is having a major impact on the HIV/AIDS epidemic.

Health system

In the South African two-tiered health system, public funds for healthcare, representing 48% of total healthcare expenditure for 42 to 45 million people, are collected through general taxes (mainly VAT, company tax, and personal income tax) and then allocated through national parliament to the provinces, who provide services at public facilities.

52% of healthcare spending is funded privately, 80% of which is through prepaid voluntary medical insurance (medical schemes) who purchase services from mostly private providers.

Per capita health expenditure differs markedly between the public and private sectors, with private

sector expenditure approaching that of OECD countries (USD 2,977 in 2013), and public expenditure significantly lower (USD 674 in 2013).

In December 2015, the South African Department of Health has published a White Paper towards a National Health Insurance. The NHI will be designed to ensure access to comprehensive quality healthcare services for all South Africans. The core of the envisaged financing approach will be a (largely tax-funded) NHI Fund, which is also envisaged to act as a single purchaser. Voluntary medical insurance will only be able to offer complementary cover, once the new system is in place.

National HIV programme

The South African National AIDS Council (SANAC) coordinates the national HIV response on behalf of the government.

Since 2006, two national strategic plans for addressing HIV/AIDS have been developed, each building on previous strategic plans. Over this period, South Africa has made significant strides towards achieving universal access to ARVs and the reduction of new HIV infections. More resources have been allocated to comprehensive HIV/AIDS management. Currently, SANAC is in the process of consultations for the new National Strategic Plan on HIV, TB and STIs (NSP) (2017-2022), as major costing and budgeting exercises are underway.

Overall HIV/AIDS interventions are financed through three main sources: the government, external donors and the private sector. Funding from the private

sector is not routinely tracked and there is no accurate estimate of the size of private sector spending on HIV/AIDS. However, the National AIDS Spending Assessment (NASA) undertaken in 2012 indicates that in 2009/10 the private sector contributed around 8% of total expenditure addressing HIV/AIDS. However, most of the HIV/AIDS financing comes from government. In 2014, the government covered nearly 80% of HIV spending totaling USD 1.4 billion. These funds are mainly from three departments - Health, Education and Social Development. Within the Department of Health, there are separate contributions from the National Department of Health and the Provincial Departments of Health. Financing from the Department of Health accounts for over 90% of public financing of HIV/AIDS, and this, again, is largely via the Comprehensive HIV/AIDS Conditional Grant.

Towards an integration strategy

South Africa is likely to be in a position to fully fund its own public sector HIV programme by the end of the decade. The discussion of criteria and mechanisms for designing the benefit package within the envisaged NHI is ongoing. Completion of the transitional process from the current health system towards NHI as a universal system is envisaged by 2025. Options for financing integration with a particular focus on the Comprehensive HIV and AIDS Conditional Grant into the envisaged

NHI Fund have been proposed and will be considered by the relevant stakeholders. Given the scope of the South African HIV response and the diverse needs of the South African population as well as aspects that typically do not fall within a health system's benefit package, parts of the programme will remain outside of the NHI. South Africa's unique HIV response demands a carefully coordinated integration strategy alongside the NHI implementation process.

THAILAND

HIV integration into efforts for UHC

Country context

Among all Asian countries, Thailand remains the country with the highest HIV prevalence rate in adults of 1.1% (UNAIDS, 2015b). The overall life expectancy at birth of the Thai population is 75 years. This has stayed steady at 70 years during the peak of the HIV epidemic in the late 1990s and increased steadily over the last 20 years (Roser, 2016) .

HIV/AIDS ranks sixth among leading causes of death (4.1%) with heart disease (13.7%), stroke (10.3%) and

lower respiratory infections (9.4%) the leading causes (WHO, 2012). The same applies to the leading causes of DALY with HIV ranking on sixth position alongside TB and malaria.

Thailand ranks among the upper-middle income countries with little inflation and with 10.5% a comparatively small share of the population living under the national poverty level (WorldBank Data).

Health system

In Thailand, the Ministry of Public Health (MoPH) is responsible for the health system, more specifically for health system planning and management. Administrative functions have been decentralised and are covered by provincial and district health offices. Overall, the Thai health system is considered to be relatively well developed, both in terms of healthcare facilities as well as financing and governance systems. The country's HIV, tuberculosis and malaria programmes are included in the general health care system (Hanvoravongchai, P. et al., 2010).

Thailand achieved universal health coverage in 2002 at which point population coverage was at 92.47% (HiT Thailand, 2015). This had increased to 99.92% by 2015 (Ingun et al., 2015).

The population is covered through three different health coverage schemes: 1. Universal Coverage Scheme (UCS) – general population (75% coverage); 2. Social Health Insurance Scheme (SHI) – private sector employees (16% coverage); 3. Civil Servant Medical Benefit Scheme (CSMBS) – civil servants and their dependents (9% coverage) (HiT, 2015).

Overall, public expenditure on health lies at 77% of total health expenditure (as of 2011). Healthcare in Thailand is delivered through a multilevel healthcare system that aims to:

- improve geographical access of the population
- enhance system efficiency through service usage by level and referral systems

The Universal Coverage Scheme (UCS) handles health promotion and disease prevention services for the whole population.

Primary health care (PHC) is delivered under the UCS through contracting units for primary care (CUP). They require a minimum staffing and consist of networks of several health centres and a hospital. In the private sector, a CUP is often just one PHC unit in urban

settings. Secondary and tertiary care are provided by hospitals, often on referral up the system (from PHC to district to provincial/regional). Emergency medical services (EMS) are universally available. Prehospital (first response, basic, intermediate and advanced life support) and hospital A&E services are also available to patients. Medicines outside of hospitals are available through private pharmacies operated by a registered pharmacist or through nurses in health centres.

National HIV programme

Responding to the generalised epidemic lies within the remit of the cabinet and National AIDS Committee (NAC) who approved the National AIDS Strategic Plan (NASP) for 2014-16.

Financing the HIV response is to a large extent covered by the three schemes. With 90% of domestic HIV spending in 2013 Thailand is largely independent in resourcing the HIV response (UNAIDS, 2014).

HIV service delivery has been integrated since 2002. Hence, Thailand does not have a separate national HIV programme as is the case in all other countries included in this overview.

Overall, the independence and integration of both financing and delivery provides the Thai government with a high degree of ownership of the HIV response with regards to decision- making and accountability.

Towards an integration strategy

HIV service delivery and financing are largely integrated in Thailand. There is hardly space, however, to increase public spending on HIV. The rate of new infections shows that prevention services and behavioural communication fall short of appropriately addressing the issue. Further, marginalised key

populations require attention. These include not only IDUs with an HIV prevalence of 19% but also a significant percentage of migrant workers (Thai National AIDS Committee, 2015). For the time being it is important to ensure sufficiently funded service offers for these marginalised groups outside of the UHC environment.



HIV ERG

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