Desk Review of institutional arrangements for health financing in selected African countries

Royal Tropical Institute
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REBUILDING THE FOUNDATIONS FOR
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Executive Summary

Zimbabwe's current health financing system is based largely on out of pocket payments made by patients, public revenues from taxation and support from external funders including donors and the not-for-profit private sector. As Zimbabwe transitions from immediate recovery measures implemented in 2009-2012 towards building the foundation for longer term rebuilding and universal health coverage (UHC), including introducing an essential health benefit package, a number of research projects to support policy dialogue and decisions on the technical design around elements of equitable health financing are underway.

Primarily through a desk study, this review describes features of the collection, pooling, purchasing, monitoring and governance in health financing, particularly in relation to health financing systems from African countries which are primarily tax-based: Botswana, Gabon, Ghana, Kenya, Tanzania and South Africa. It has this focus recognising that new funding options in Zimbabwe are all earmarked tax options (earmarked VAT, cigarettes, alcohol, road, mobile phone, others), and building on the experience of an earmarked tax for funding HIV interventions which is positively regarded by stakeholders, the review looks at health financing systems in six African countries. This literature review was done under the ReBuild Programme of health systems research and stakeholder dialogue and capacity building that seeks to move from the immediate recovery measures to longer term measures for Universal Health Coverage (UHC), which encompasses equity in access and coverage. The work is supported by Liverpool School of Tropical Medicine through Training and Research Support Centre (TARSC) and the Ministry of Health and Child Care (MoHCC).

This review has revealed a variety of options for collection of taxes and other revenues. Notably, three countries in the review have made significant progress towards universal health coverage using national 'health insurance schemes' as their instrument. The 'health insurance schemes' we refer to here are unlike traditional 'health insurance schemes' in that they are generally funded from a range of sources including general tax revenue, contributions from employers and employees, donor funds and other sources. From Gabon's National Insurance and Social Welfare Fund to Ghana's National Health Insurance Scheme to South Africa's 14-year transition to National Health Insurance, this review has revealed a variety of ways to set up national 'health insurance schemes.' Additionally, some countries have found unique and sustainable ways of using taxes to generate revenue for the poor and those working in the informal sector, as in Gabon, or use ways of collecting premiums from these same groups, as in Kenya. Although some countries have set up social health insurance-type schemes for pooling funds, or have pooled funds in semi-autonomous institutions for funding specific services or wider health benefits, they may not have gone so far as to share risks. This is particularly important for countries like Zimbabwe with an HIV prevalence of around 10% and a large poor and vulnerable population.

With regards to expenditure, the case study countries reveal multiple ways of setting priorities to guide resource allocation, ranging from following "infrastructure rather than health needs of the population" in Botswana (Alfred, 2012) to multiple redistributions formulas based on poverty, health need, population size, utilization and historical allocation (Ghana, Kenya, Tanzania, South Africa). However, regardless of the resource allocation formula or system used, we could not find much evidence about the results: have they worked in achieving UHC? Have they improved equity? We argue strongly in favour for monitoring and evaluation systems which can track this, and that results are fed back into the system and adjustments made to the resource allocation formula and process.

Although when discussing financing for health the emphasis is usually put on raising additional revenue for health, making efficient and equitable use of the available resources is equally important. Here the purchasing arrangements are important. An autonomous purchaser creates

opportunities for greater accountability of both parties and introduce market elements such as competition that can help decrease cost and improve quality (Abt Associates, 1999). Provider reimbursement systems are also an important. In the case study countries a variety of options exist, from a daily flat rate (Kenyan NHIF), fee-for-service (Tanzania NHIF, Gabon's CNAMGS, private health insurance in Kenya), DRG (private health insurance in Kenya and Ghana) and capitation with or without risk adjustment (CHF/TIKA in Tanzania, new NHI in South Africa). Newer and more innovative models include payment based on the facility's accreditation score (Kenya NHIF) and performance incentives (Kenya NHIF, new NHI in South Africa). There are pros and cons to each provider payment mechanism, although with all mechanisms proper accounting is required to help control fraud and also split payments between relevant departments.

In terms of governance arrangements, detailed information was lacking for many of the case study countries. However, we did find that several countries have successfully devolved service delivery while also ensuring coordination, regulation and equity. In Ghana, the Ministry of Health is responsible for the general coordination and oversight of the system, but operational responsibilities have been delegated to the GHS, who in turn has gradually deconcentrated operational functions to its Regional Health Administrations (RHAs) and especially DHA offices. In South Africa's quasi-federal system, the national level has responsibility for overall strategic direction for the health system but provincial MOHs (with their own budget) oversee all health services within the province. Future District Health Authorities (DHAs) will be established and charged with contracting with the NHI for purchasing, supported by NHIF's sub-national offices to manage contracts with accredited providers.

Our comparisons on the different options for revenue collection and pooling, resource allocation or purchasing and governance including institutional arrangements, monitoring and evaluation exhibited in these six countries have not led us to conclude that there is one correct way to structure a health financing system in order to achieve universal coverage. Instead, we summarize several important design features as well as suggest some key issues to keep in mind when reforming a health financing system like Zimbabwe's.

1. Introduction

Zimbabwe is currently in a transition from immediate recovery measures implemented in 2009-2012 towards building the foundation for longer term rebuilding of the system for UHC, as set out in the NHS, taking into account equity in access and coverage. As part of a larger DFID-funded research programme, a consortium led by the Training and Research Support Centre (TARSC) and with participation from the Ministry of Health and Child Care (MoHCC) Zimbabwe, the Royal Tropical Institute (KIT Netherlands) and the Zimbabwe Economic Policy Research Unit (ZEPARU) is implementing research to support policy dialogue and decisions on the technical design around elements of equitable health financing. This piece of work, led by KIT, looks at health financing systems of six countries in Africa.

This work was undertaken with an understanding of Zimbabwe's current health financing system, which is based largely on out of pocket payments made by patients, public revenues from taxation (complemented by other purpose-specific pools funded from earmarked taxes, e.g. the AIDS Levy fund) and on external funders including budget support (e.g. the HTF) and the not-for-profit private sector (like faith-based organizations). Private health sector financing is through out of pocket payments, voluntary insurance and industry contributions. Provider payment mechanisms are mainly based on a deconcentrated system of payment through the Ministry of Health and a results-based financing approach is currently being piloted. Although a combination of general taxation, social insurance, private health insurance and limited out-of pocket user charges has become the preferred health financing instrument for middle- and higher income countries, including many countries in Africa, we understand that there is no current proposal in Zimbabwe to bring in Social Health Insurance due to the current economic context (low formal employment, high income taxation, declining real wages and corporate shutdowns), although this may be introduced downstream when economic conditions change. New funding options (for which technical work has been done) currently being considered and included in the Zimbabwe Agenda for Socio-economic Transformation 2013-2018, the national policy framework (GoZ, 2014) are all earmarked tax options (earmarked VAT, cigarettes, alcohol, road, mobile phone, others) and build on the experience of an earmarked tax for funding HIV interventions which is positively regarded by stakeholders (MoHCC, TARSC, 2013). To this end, we also understand that there is a sense of urgency within the Ministry currently to work out the institutional arrangements for a fund to blend and manage the earmarked tax funds and other contributions from different sources.

Through desk research done by a team at KIT, the objective of this review is to describe health financing options broadly, then narrowing down to a range of examples of health financing systems from African countries which are primarily tax-based: Botswana, Gabon, Ghana, Kenya, Tanzania and South Africa. We end with a discussion which compares, contrasts and comments critically on different options for revenue collection and pooling, resource allocation or purchasing and governance including institutional arrangements, monitoring and evaluation.

This complements review and field work being done in the Rebuild project on purchasing arrangements in Zimbabwe (see for example Gwati, 2014). This area is more focused on the institutional and governance arrangements for pooling, managing, allocating and ensuring and reporting on outcomes for funds in line with national health and accounting objectives. The information on international experience in this review and particularly the examples from Africa intend to provide information on options that may have relevance to Zimbabwe, particularly in relation to the challenges or concerns raised in a complementary review of arrangements in Zimbabwe and in the subsequent field work.

2. Methodology

The methodology used is a desk study on different health financing options, taking case studies from several African countries. The case study countries have been selected using a quick scan according to the following criteria:

1. Located in Africa
2. Primarily tax-based health financing
3. Identified in international literature (published and grey) as good practices or innovative cases with regards to taxation for health
4. Identified in international literature (published and grey) as a variety of good practices or innovative cases with regards to purchasing quality of care
5. Availability of information on the health system

On the basis of the above, the chosen countries are Botswana, Gabon, Ghana, Kenya, Tanzania and South Africa.

The exercise is descriptive in nature, trying to identify the various elements of the financing systems in the identified countries, searching specifically for information on design features, with specific attention to challenges or gains in terms of:

- Equitable distribution of (human, financial, logistical) resources, and equitable access to health care;
- Efficiency in using (human, financial, logistical) resources;
- Effectiveness of different health interventions;
- Accountability arrangements and systems;
- Changes (positive or negative) in quality of care.

A first scoping of the grey and published literature on this topic confirmed that limited information is available on this topic. Because of the lack of published data, especially for some of the case study countries, we have focused our search more on finding the descriptive elements of health financing systems on government websites and in grey literature reports rather than published articles.

We created an Excel data extraction spreadsheet for each of the six countries to gather and organize the data collected. Data was collected around the major topics in health financing: revenue collection and pooling, resource allocation and purchasing. For the purpose of this literature review we added essential topics that are missing in this model: governance including accountability as well as monitoring and evaluation. The table below outlines the data collected about each country.

Table 1: Data collected for each country

Topic	Issues
Revenue **collection,** pooling	External and internal sources : taxation, earmarked funds community financing/ out-of-pocket, donor funding, private insurance, grants, loans;
	Revenue pooling and management of the single Health Funding basket: in terms of predictability, conditionalities, etc.
	Ensuring sufficient HF available, respect of funding arrangements:
	Management of health funds, decision-making processes
Expenditure on health care, and Resource **allocation** systems	Decision-making on spending HF used for the pre-designed health purposes only; Fungibility, actions in case in case of over- and underspending
	funding for capital/ (semi-)recurrent costs (medical equipment, …)
	Public Finance Management: policy strategies translated to budgets (MTEF), translated to time-bound financial plans (annual, 3-year plans, …) and monitored
	Systems to ensure predictability/ avoid id variability of funding;
	Institutional set-up (within MOH or separate; whether autonomous or not)
	Processes, criteria and systems in place for resource allocation at central and at different decentralized levels - funding channels used
	Supply-side or demand-side financing, or mixed?

Topic	Issues
	Provider payment mechanism : Ex ante (input-based budgets, capitation payments) or ex post (Diagnostic Related Groups/ DRG, results-based financing);
	Efficiency gains – Contents of Basic Benefit Package, reducing transaction costs, co-payments to avoid frivolous use
	Transfer of resources from rich to poor, healthy to sick, and gainfully employed to inactive; mechanisms for targeting the poor
	Alternative channels in the country, the health financing mix
Purchasing arrangements	Institutional set-up (within MOH or separate purchasing entity; whether autonomous or not)
	Strategic purchaser: national health priorities vs priorities at decentralized level;
	Disbursement system approach, Systems for timely claim payments by the purchasing entity (Admin system, …)
	Contracting providers: nature of the contracts and their targets, their benefit package processes of negotiation and reporting
	(Different) unit prices for public and private providers
	Systems & processes for timely payments to providers by the purchasing entity
	Purchasing quality care: organizing accreditation facilities, quality assurance systems;
Governance	Separation of functions: Regulation, purchasing and verifiers – from providers
	Decisions mandates over available funds at different levels: centralized/ decentralized (deconcentration vs devolution)
	Accountability arrangements for purchasing entity – accountable on what, to whom, at what level; organization stakeholders; influence/ power 'demand-side'; accountability instruments; accountable on what: services to clients or providers… consequences (positive/negative)
	Accountability arrangements for providers– accountable on what, to whom, at what level; organization stakeholders; influence/ power 'demand-side'; accountability instruments; accountable on what: processes, results (quantity or quality of care) – consequences (positive/negative)?
	M&E of the purchasing entity - list of indicators, architecture of information flow
	M&E of providers - list of indicators, architecture of information flow, Verification of reported results control for over-prescription/ over-billing (medical audits?)
	Stakeholder oversight and accountability

The first country (Kenya) was researched separately by two researchers and notes compared for similarity of findings and to discuss problems. Thereafter, one researcher completed the research for three countries (Gabon, Ghana and Tanzania) and the second researcher completed the research for Botswana and South Africa. In the case of Gabon both English and French resources were searched. The case studies were written up by the researchers who completed the research and reviewed by the second researcher. Areas for further research were noted and then followed up on.

The second researcher compiled all six case studies into this report, organized by health financing topic. The report went through several sets of comments and revisions by the other team members. After submission of the first draft of the report, areas for further inquiry were identified and key informants in each country contacted. The key informants were either authors of materials used in

the desk studies or other individuals known to the research term. They were contacted by email during February and March 2014 and asked to participate in a short interview or respond to a limited number of questions by email. Although a number of informants in four countries responded positively to the request to be interviewed, only one respondent, from Gabon, was able to answer the questions before submission of the final draft of the report.
In some cases data availability was limited, despite the follow-up attempts. We have presented whatever data was available and noted areas where information is missing.

The discussion section compares, contrasts and highlights advantages and disadvantages of the different models and potential application in Zimbabwe. The discussion section was also written to address several areas for further inquiry identified through recent stakeholder consultation done as part of this consortium's work:

- Priorities for guiding resource allocation
- Whether delivering the state's constitutional obligation means explicitly stating services it won't spend on (negative list) or obligating a list of positive services (EHB)
- How to devolve service delivery while also ensuring coordination, regulation and equity
- The role of the private sector: how to negotiate and manage resource allocation, purchasing and regulation/governance of the private sector? How to balance regulation and incentives?
- How to control market issues in health, i.e. cost escalation, wastage, risk skimming, exclusions, inappropriate treatment, excess administrative costs

The methodology was reviewed by the head of the research consortium prior to work beginning. Four researchers in total contributed (a head researcher, a research assistant and two reviewers) and the work was done over a period of approximately three and a half months from end November 2013 to mid March 2014.

3. Introduction to health financing

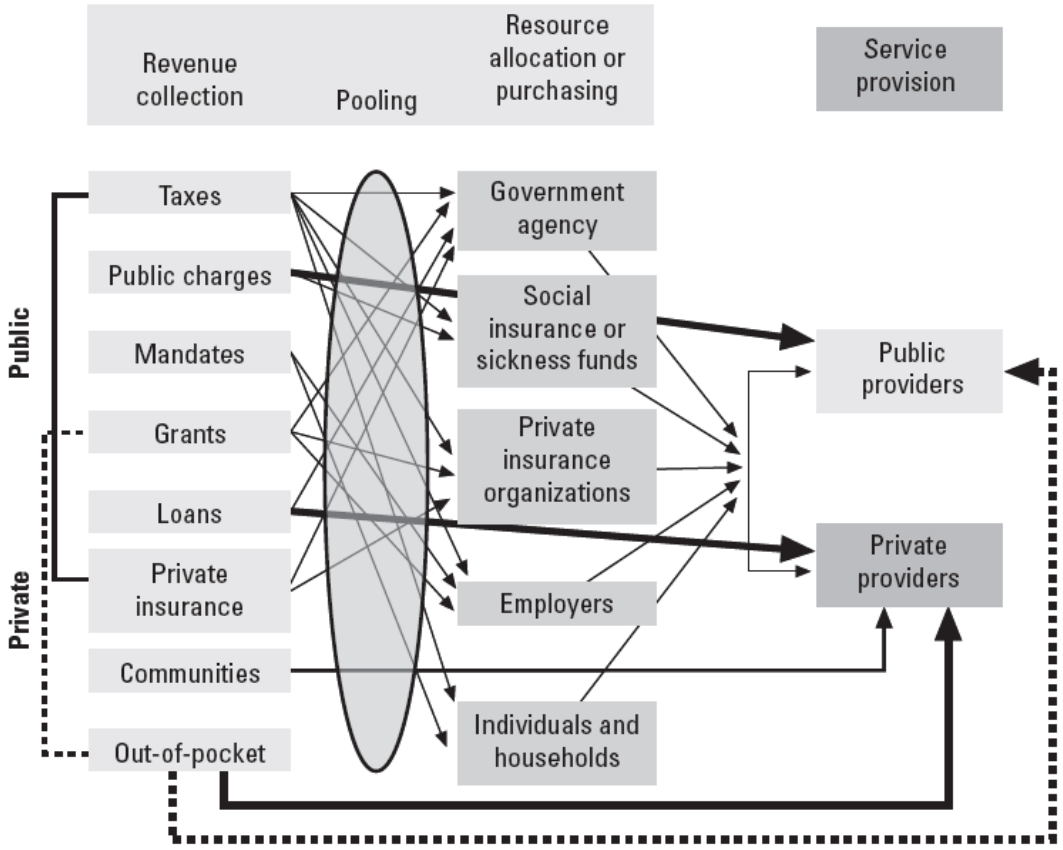
Health financing is generally understood in terms of three major discrete functions involved: (a) collection of revenues (source of funds), (b) pooling of funds and spreading of risks across larger population groups, and (c) purchase of services from public and private providers of health services (allocation or use of funds). We have deemed service provision to fall outside the scope of this exercise. Missing from the figure, however, are the ever-important governance and monitoring and evaluation mechanisms for the entire system.

Although there are many models for accomplishing these three basic functions, all models essentially try to achieve three objectives (Gottret et al, 2008; Gottret and Schieber, 2006):

1. Raise enough revenue to provide a basic package of services and financial protection against catastrophic spending
2. Equitably and efficiently manage revenues through pooling, which also pools risks
3. Purchase health services in an allocatively and technically efficient way

Revenue collection generally comes from some combination of taxation, mandatory and voluntary health public and private insurances, community-based health insurances, donor funding and out of pocket spending. None is inherently better than another, but the choice of method(s) depends on a country's context (Gottret and Schieber, 2006). The ability to raise revenues from taxation generally depends on the strength and nature of the economy on the one hand and on the reliability of Public Finance Management systems on the other hand. Many countries with formal sectors have tried mandatory insurance schemes through payroll deductions, whereas countries with large informal sectors may not be able to effectively capture tax revenue from this sector and may have to rely more on other sources of revenue. Finally, the health financing mix will depend on choices made by national politics or the 'political economy' in the country. Revenue collection is generally judged on progressivity.

Figure 1: Flow of funds through the system



Source: Preker and Carrin, 2004.

In the absence of a type of national health insurance, these funds are often not pooled into a single 'basket', but rather kept and managed separately. They may be managed by a government agency, insurance agency (either for- or non-profit), employer or in the case of household spending, by an individual or household. Purchasing arrangements range from 'ex ante' payments based on agreed budgets, salaries and/or capitation, or 'ex-post' payments based on paying for results such as reimbursement on a fee-for-service basis, performance-based schemes, diagnosis-related groups (DRGs) and more. Contracts with at least some part of reimbursement being linked to performance are becoming increasingly popular and are seen as a way to help improve quality of care as well (Cromwell et al, 2011).

Governance includes a wide range of accountability and monitoring and evaluation measures. Their existence as part of the health financing system ranges broadly from country to country.

In terms of measuring how well a health financing system is doing, a composite indicator is not currently available and common indicators look only at individual parts of the system. For example, revenue collection is measured in terms of progressivity. The system is considered progressive if the fraction of income paid by a person rises as their income rises; in other words, they pay more as their ability to pay more increases. Regressive financing systems are those in which the fraction of a person's income paid to the funding system declines as income rises; in other words, they pay less as their ability to pay declines. In a financing system which is proportional, the proportion of income paid remains constant regardless of income or ability to pay (Gale Encyclopedia of Public Health, no date). Individual revenue sources may also be deemed to be progressive or regressive.

The following sections present descriptive findings from the six case study countries in terms of each of the four functions (revenue collection, pooling, purchasing and governance).

4. Revenue collection

4.1 Botswana

WHO reports Botswana's total health expenditure per capita (PPP Int$) to be 711, which represents 7.1% of GDP (WHO Department of Health Statistics and Informatics, 2013). The majority of health financing comes from government, largely from general taxation (Alfred, 2012). Government funding for health is distributed to three public bodies: the Ministry of Health (64%), National AIDS Coordinating Agency (NACA) (9%) and the Ministry of Education and Skills Development (3%), with the remainder going to private financing agents such as insurance schemes, households and nongovernmental organizations (24%) (Health Observatory, no date). It is not clear whether there are other semi-autonomous funds in Botswana and further discussion on the NACA is found in section 7.1. A 2009-2010 National Health Accounts (NHA) analysis revealed 68% of funding comes from public sources, 24% from private sources (out-of-pocket spending, employer premiums and co-payments for public (BPOMAS) and private insurance schemes ((BOMAID, Pula, Itekanele, and Botsogo))) and 8% from donors (Alfred, 2012; Ministry of Health, 2012). Compared with 2007-08, government's contribution is basically unchanged (67 vs 68%), donor funding has decreased (14 vs 8%) and private funding has increased (19 to 24%). General tax revenue has been criticized for being vulnerable to macroeconomic crisis, particularly since most revenue is generated from international mineral trade (Alfred, 2012; Abt, no date). Donor support is largely off-budget which has also been criticized (Alfred, 2012); draft revised Botswana National Health Policy has proposed a Sector-Wide Approach to increase alignment and harmonization of donor support (Ministry of Health, 2012). It is unknown whether the proposal has been adopted.

Cost recovery was introduced in Botswana in 2002, initially for foreigners and later expanded to citizens. In 2007-2008, the MOH introduced exemptions in the payment of user fees, particularly for vulnerable groups (Ministry of Health, 2012; Akinkugbe et al., 2011; Alfred, 2012). Out of pocket expenditures account for only 8% of total health expenditure (WHO Regional Office for Africa, 2012).

Pooling in Botswana takes places by the government (at both central and local levels) and separately by the public and private insurance schemes (Alfred, 2012). The draft revised Botswana National Health Policy proposed health compacts for pooling donor funds and using national PFM procedures by donors; it is unknown whether these items have been adopted (Ministry of Health, 2012).

4.2 Gabon

WHO reports Gabon's total health expenditure per capita (PPP Int$) to be 532, which represents 3.5% of GDP (WHO Department of Health Statistics and Informatics, 2013).
Over the period 2005-2009, average spending on health care accounted for 5.6% of the government budget, although the trend shows an increase of government spending on health, reaching 6.4% in 2010 and 2011 (Oxford Business Group, 2012). Government expenditure per capita is US$ 2410, explained by a high GDP in absolute per capita terms (WHO Regional Office for Africa (2012), OOPS exceeds 20% of total health expenditure (WHO Regional Office for Africa, 2012).

Gabon was cited by the WHO as being innovative in health financing by introducing a special levy on mobile phone companies as well as currency and other financial transactions to pay for healthcare for the poor (WHO Regional Office for Africa, 2012). Mobile phone companies pay a 10% levy on their turnover, excluding tax, and a 1.5% levy is charged on money transfers outside the country (Humphrey, 2013; WHO Regional Office for Africa, 2012). These funds are collected by the tax authorities and transmitted directly to the national health insurance organization CNAMGS,

described below (Inoua, 2014). In 2009 these sources generated US$ 30 million (approximately US$ 18 per capita) for health in 2009 (WHO Regional Office for Africa, 2012).

In an effort to reform their health financing system, Gabon set up a compulsory national health insurance, the National Insurance and Social Welfare Fund (Caisse Nationale d'Assurance Maladie et de Garantie Sociale, CNAMGS) in 2007. For more information on the setup for CNAMGS, please see Section 7.2. Funds for CNAMGS originate from different sectors of society:

- Employees in the public, private and the broader public sector: Public sector employees contribute 6.6% of taxable earnings (up to a ceiling of 6 million FCFA or USD 12,000 per month), of which 2.5% is paid by the employee and 4.1% by the employer (Mbeng Mendou, 2012). Retirees contribute 1.5%. Beneficiaries pay 20% (or 10% in case of long-term diseases) of their health costs themselves in the form of user fees; pregnant women are exempt from user fees (Mbeng Mendou, 2012). When the employer does not pay the dues in time it is increased by two percent (2%) per (fraction of) month delay (Musango and Aboubacar, 2010).
- Self-employed: The contributions of the self-employed are fixed and based on what people can afford to pay (Musango and Aboubacar, 2010).
- The economically weak, refugees and some students: Funding for this part of the population is supported by the obligatory health insurance levy (ROAM) coming from the four mobile operators in the country who pay 10% of their turnover excluding tax to the government to fund the CNAMGS and taxation on all international money transfers (excluding the CEMAC-region) by Western Union, Money Gram and others who pay 1.5% of the transfer amount excluding tax. In practice, these are a kind of social tax borne by the consumer (Musango and Aboubacar, 2010).

The CNAMGS is also financed by the revenue from specific activities of the fund, such as interest from investments, donations and legacies (Musango and Aboubacar, 2010). Since the scheme was introduced, funding for CNAMGS has increased steadily, rising from CFA12.5bn (€20m) in 2008 to CFA 47bn in 2011 (€71m). In 2011, CFA 17.5bn (€30m) of financing came directly from levies (UHC Forward, 2013). Interestingly, the fund for the poor operates separately from the fund for the rest, to ensure problems in one fund do not affect the other, with unclear implications for cross subsidies (Mbeng Mendou, 2012).

Until the age of 16 years (or 21 for dependents unable to engage in gainful employment because of school training or as a result of a disability or incurable illness) the dependent children of the insured are covered by the insurance benefits.

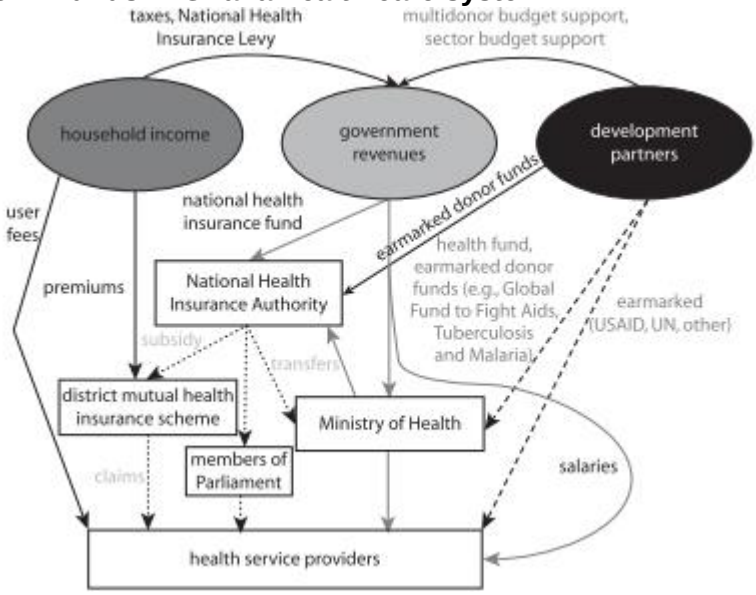
Gabon has opted for a gradual accession to the new system, beginning with coverage of the economically weak in 2008 and 2009, followed by civil servants in 2010, the broader public sector in 2011 and the private sector in 2012 (Musango and Aboubacar, 2010; Mbeng Mendou, 2012). Eventually CNAMGS will cover 80% of the population (Mbeng Mendou, 2012).

4.3 Ghana

WHO reports Ghana's total health expenditure per capita (PPP Int$) to be 85, which represents 5.2% of GDP (WHO Department of Health Statistics and Informatics, 2013).

In Ghana in 2003, the government spent 4.5% of the GDP on health expenditure (Bitran, 2012). A slight increase to 6.7% was noted in 2004. In 2007 Government spending as a share of total spending went up to 15.4%, reflecting efforts to fund NHIS, in particular human resources for health (Bitran, 2012; ILO, 2008; Toonen, 2014). In Ghana in 2009, public health spending was GHC 1.04 billion (US$ 724 million) or GHC 43 per capita (US$ 30). The largest sources of public health spending are funds transferred by the Ministry of Finance (MoF) to the Ministry of Health (MoH) which reached 51% in 2009 (Ghana Health Sector Medium-Term Development Plan 2010-2013, 2010). (See Figure 2)

Figure 2: Funds in Ghana health care system



Source: Schieber et al, 2012.

Tax revenue in Ghana is pooled by the Revenue Agency Governing Board of the Ministry of Finance and Economic Planning. The three main bodies collecting tax in Ghana are the Internal Revenue Service which collects personal and company income tax, the VAT secretariat which collects domestic VAT, excise duties and part of the NHI levy and the Customs, Excise and Preventive Service, which collects import duties, import VAT, petroleum tax and part of the NHI levy (McIntyre et al, 2008). There is quarterly reconciliation between these revenue collecting bodies and the Revenue Agency Governing Board, and the NHIF legal framework requires the Revenue Agency Governing Board to transfer funds accruing to the earmarked VAT into the NHIF's special account for VAT (Andoh-Adjei, 2013).

After out-of-pocket payments grew unsustainable in Ghana, representing 68% of total health expenditure in 2003, the year NHIS was formed. It aimed to pool risks, reduce individual burden and improve accessibility of healthcare. NHIS relies on five diversified progressive funding sources: premiums from members (4.5% of total NHIS income in 2011), 2.5% National Health Insurance Levy (72.7% of total), 2.5% from the Social Security and National Insurance Trust (SSNIT) and deductions from the formal sector (17.4%), returns from investment (5.3%) and funds from Government of Ghana to be allocated by Parliament and other sources (<1%) (%) (Bitran, 2012; McIntyre et al, 2008; Andoh-Adjei, 2013). In 2008 17.9% was allocated to the NHIS by the Ministry of Finance (Akazili et al, 2011). Grants and other donor funding, donations and voluntary informal workers contributions are other sources of funding for the NHIS (ILO, 2008; Toonen, 2014). More than 80% of the collected NHIS funds are outside the control of the health sector budget (Akazili 2010).

Funds raised by the National Health Insurance Scheme (NHIS) and Development Partners (DPs) were 32% and 17%, respectively (MoH, 2011). In figure 1 below, Schieber et al (2012) show that taxes, national health insurance levy and donor funding are sources of government funds in Ghana. McIntyre (2008) reports earmarked tax for national health insurance at 5.1%. VAT was increased by 2.5% as a means of generating more revenue to fund the NHI system (McIntyre, 2007).

Revenues to fund the NHIS are pooled in the National Health Insurance Fund (NHIF). The NHIS includes both formal and informal sector workers (McIntyre, 2007). Persons working in the formal sector contribute to the health insurance through payroll-deducted contributions via SSNIT (McIntyre, 2007; McIntyre et al, 2008). The funds are then sent to the District Management Health

Insurance Scheme (DMHIS) from SSNIT, a body that manages retirement funds. Persons in the informal sector pay their health insurance contributions directly to their relevant DMHIS (McIntyre et al, 2008). Ghana has made it compulsory for all citizens to become members of either private, commercial or DMHIS insurance schemes. It has also provided incentives for people to remain members of the NHIS system by giving subsidies only to DMHIS (McIntyre, 2007). Low income groups contribute in local currency the equivalent of 8 USD, middle income people pay 20 USD and high income earners contribute 53 USD per year, although it is reported in practice that everybody pays 8 USD per year (McIntyre, 2007; Toonen, 2014).

Following its implementation, a decline in out of pocket financing was noted for three successive years, including a record low of 28.1% in 2007 (Bitran, 2012). In 2005/2006, a year or two after the NHIS came into effect, Akazili et al, (2011) reported that 48% of total health care expenditure came from out of pocket payments. In 2009 out of pocket payments further decreased and accounted for only 5% of the total health revenue (Schieber et al, 2012). In the same year, 2009, Bitran (2012) reported that, out-of-pocket payments made up one third of the total health spending, a figure contradictory to that reported by Schieber et al, (2012). He also noted an increase in out-of-pocket payments beginning in 2008, but the increase remained lower than before the implementation of NHIS. Out of pocket payments decreased significantly from 42% in 2004 to 34.3% in 2009 (Bitran, 2012). The poor, pregnant, elderly, pensioners and children are exempted from paying premium contributions to the NHIS (Schieber et al, 2012; McIntyre, 2007). In addition diseases regarded to be of public health importance such as, leprosy, tuberculosis also have exemptions (McIntyre, 2008).

The implementation of the NHIS has also seen a decrease in funding from DPs for general budget support (Toonen, 2014). In 2009 donor funding had dropped by 50% since 2004 (Bitran, 2012). However, donor support still remains a significant part of health sector funding (Akazili 2010) and accounts for 20% of total health care funding (McIntyre et al, 2008).

4.4 Kenya

WHO reports Kenya's total health expenditure per capita (PPP Int$) to be 72, which represents 4.4% of GDP (WHO Department of Health Statistics and Informatics, 2013).

Kenya's health financing system is characterized by a high level of out-of-pocket expenditure, the largest source of financing the health sector with a contribution of 36.7% of total health expenditure in 2009-10, down from 54.0% in 2001-02 (MMS and MPHS, 2011; Danida, 2011). Also in 2009-2010, donor contributions rose from 16.4% to 34.5% (MMS and MPHS, 2011). The public (government) contribution is largely unchanged from 29.6% in 2001-02 to 28.8% in 2009-10 (MMS and MPHS, 2011). Funding comes from National Hospital Insurance Fund (NHIF), CBHIs, donor funding where funds are channelled through the general budget support and tax revenue (Chuma and Okungu, 2011). General tax revenue comes from several sources, including value added tax (30%), personal income tax (24%), company tax (14%), fuel tax (13%), import tax (10%) and excise duty (10%) (Chuma and Okungu, 2011).

In Kenya, approximately 10% of the population has some type of health insurance (Chuma and Okungu, 2011). 7.1% of the population is formally employed and required to contribute to hospital care insurance through mandatory payroll deductions to the National Hospital Insurance Fund (NHIF), Africa's oldest government health insurance programme (Luoma et al, 2010; Lagomarsino et al, 2012). Taxes and payroll contributions are collected by the Kenya Revenue Authority (Chuma and Okungu, 2011). NHIF mandatory insurance contributions are deducted directly from payroll for formal sector workers; there are designated payment centres where informal workers can make payments (Chuma and Okungu, 2011).

Largely to-date Kenya has used different insurance systems for different target populations although schemes are starting to combine (Lagomarsino et al, 2012). For example, NHIF initially covered formal sector workers only, but recent pilots are attempting to cover informal workers using mobile

phones to take premium deductions (Lagomarsino et al, 2012). Separate government programmes for civil servants, military personnel and teachers are now being consolidated into NHIF (Lagomarsino et al, 2012). NHIF operates a single risk pool (Chuma and Okungu, 2011).

Donor funding in Kenya given directly to the government is allocated using the historical incremental approach (Chuma and Okungu, 2011). More common is for donor funds to be allocated to specific projects directly (Chuma and Okungu, 2011). Recently the Government of Kenya, World Bank and Denmark signed a joint donor basket fund called the Joint Financing Arrangement (JFA). The JFA consist of 5 baskets; Health Sector Services Fund (HSSF), Essential Medicines and Medical Supplies (EMMS), Human Resources for Health, Hospital Services Fund, Capacity and Systems Development. It is unclear if these are separate specific funds. Every year a joint performance review is supposed to be carried out. A framework has been set up to manage and monitor the pooled funding including disbursement procedures, reporting and audits. Over three years DKK 430 million will be provided for support to the HSSF, EMMS and sexual and reproductive health and rights (Danida, 2011).

There is no specific system to ensure sufficient health financing is available. Government allocation is subject to the budget process as described in subsequent chapters.

4.5 South Africa

WHO reports South Africa's total health expenditure per capita (PPP Int$) to be 915, which represents 8.7% of GDP (WHO Department of Health Statistics and Informatics, 2013). In 2006, the National Treasury reports that 11.55% of tax revenue was allocated to the health sector (Ataguba and McIntyre, no date). Public sector financing was at one point limited as a result of debt servicing requirements, which started declining in 2000s (McIntyre and Thiede, no date). Botha and Hendricks (2008), however, report public sector expenditure was nonetheless stagnant and didn't keep pace with population growth.

In South Africa, The public sector subsidizes the private sector through tax subsidies on medical scheme contributions (valued at more than R10 billion in 2005) and subsidized training of healthcare workers who go into the private sector (McIntyre, 2010; Botha and Hendricks, 2008).
User fees were eliminated for public sector primary care services, all health services for children under the age of six and pregnant and lactating women (Mills et al, 2012). Outside of these groups, however, Mills et al (2012) report users face "not insubstantial" fees. It is unknown what amount is generated by user fees.

South Africa's Road Accident Fund (RAF) takes provides insurance coverage to all motor vehicle drivers, in place of a legal requirement that all motor vehicles are insured and drivers carry third party insurance (ZEPARU, TARSC, MoHCW, 2013). A small percentages of funds paid for fuel (set at 80 cents per litre in 2012) goes to the RAF by way of the South African Revenue Service (SARS) (ZEPARU, TARSC, MoHCW, 2013). In case of an accident, the RAF compensates those involved based on each party's percentage of non-responsibility for the accident (ZEPARU, TARSC, MoHCW, 2013). After a change in legislation in South Africa in 2003, the Road Accident Fund (RAF) has seen positive revenue growth (Matsoso and Fryatt, 2013a). It generated R630 million in 2010-11 and 2011-12 (up to 3rd quarter) (Matsoso and Fryatt, 2013a). For more information on the RAF please see the report by ZEPARU, TARSC, MoHCW (2013).

Also in 2010-11 and 2011-12, the government collected R408 million from medical (insurance) schemes (Matsoso and Fryatt, 2013a), from providing services to other state organs (R299 million) and from subsidized patients (R175 million) (Matsoso and Fryatt, 2013a). Local governments generate an additional R1 billion from local taxes and other local revenues; provincial government generate an insignificant amount of revenue (McIntyre and Thiede, no date).

Less than 44% of total health expenditure covers approximately 85% of the population in South Africa (Botha and Hendricks, 2008). Approximately 10% of the population through the private sector consumes more than 55% of financial resources for health (Botha and Hendricks, 2008).
Revenue collected by provinces is directed into the provincial revenue fund, which is incorporated into the annual budget allocation (Matsoso and Fryatt, 2013a).

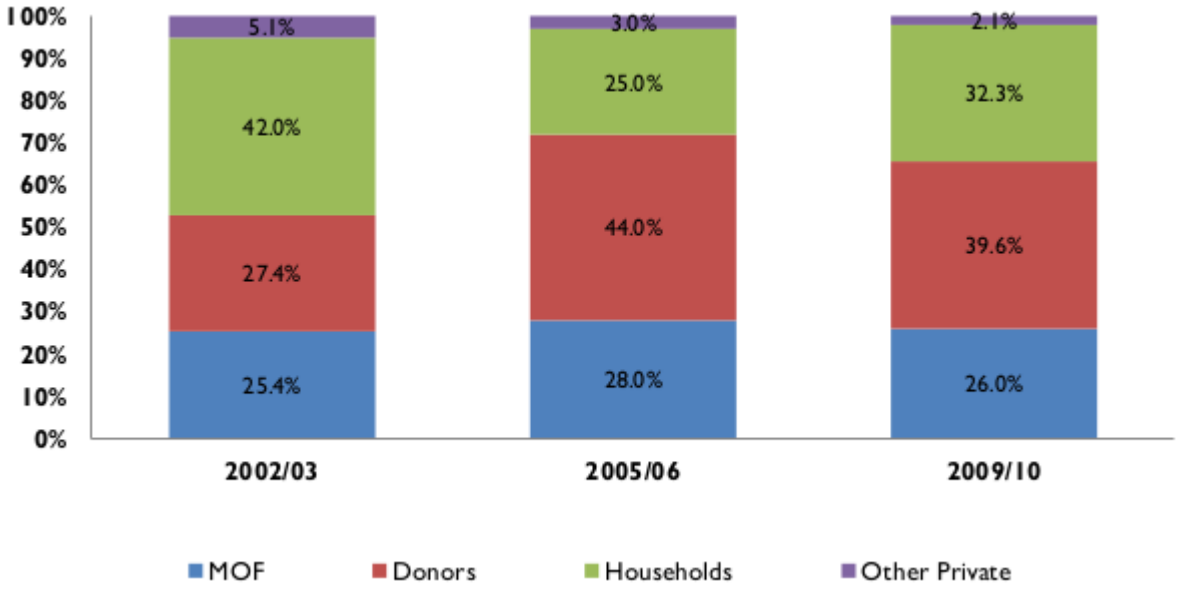
Currently medical schemes operate their own pools in South Africa, and the high number of medical schemes (119 in 2008) has been cited as a reason for weak purchasing power and cost escalation (Department of Health, Republic of South Africa, 2011; McLeod and Grobler, 2010). A planned Risk Equalization Fund (REF) for medical schemes, initially set to be operational in 2005, is still not functional (Botha and Hendricks, 2008; McLeod and Grobler, 2010). The REF is designed to make risk-adjusted payments to private health insurance funds on the basis of age, gender, chronic conditions and maternity events of those insured (McLeod and Grobler, 2010). In the future under NHI (expected as early as 2014-15), all revenue collection would be done by the South African Revenue Services (SARS) including the mandatory prepayment contribution from both employees and employers (Matsoso and Fryatt, 2013a; UHC Forward, no date c; Department of Health, Republic of South Africa, 2011; Matsoso and Fryatt, 2013b). Treasury would then allocate general tax revenue for health to NHI in consultation with the Minister of Health and NHI (Department of Health, Republic of South Africa, 2011). All funds would go into a central “NHI Fund” with its own management arrangements and governance mechanisms set to be proposed in late 2013 (Matsoso and Fryatt, 2013a; UHC Forward, no date c). The South African Social Security Agency (SASSA) serves as a model for this, separate but accountable to government (Botha and Hendricks, 2008).

4.6 Tanzania

WHO reports Tanzania’s total health expenditure per capita (PPP Int$) to be 100, which represents 7.2% of GDP (WHO Department of Health Statistics and Informatics, 2013). Since 2002/03, Since the early 2000s, government health expenditure as a percent of total government expenditures has remained at a constant of about 7%. The main sources of health expenditure in Tanzania are donor funding, household out-of-pocket payments and general tax revenue (collected by the Tanzanian Revenue Authority). General tax revenue is generated from VAT (43%), personal income tax (16%), excise tax (14%), corporate income tax (11%), import duties (9%) and other sources (7%) (SHIELD, 2010). Since 1996, various government taxes including income tax, VAT, and excise taxes are collected by the Tanzania Revenue Authority (TRA), a semi-autonomous government agency operating in conjunction with the Ministry of Finance and Economic Affairs. Overall tax revenue is progressive. Income tax is the most progressive with zero tax for low-income earners. The tax rate ranges from 18.5% to 30% for the highest-income tax payers. Corporate income tax is a flat rate of 30% of company profits. VAT is the least progressive tax and is charged at 20%, but a number of items are exempt from VAT (McIntyre, 2008; SHIELD, 2010).

In 2009/2010, donors contributed 39.6% of total financing, general tax revenue via the Ministry of Finance (MoF) contributed 26.0%, households 32.3% and other private actors 2.1% (Ministry of Health and Social Welfare,2012). Of the total tax revenue, about 10% goes to health care. Figure 3 below shows the trend in financing sources over the years 2002/03, 2005/06, and 2009/10.

Figure 3: Sources of health financing in Tanzania



Source: MoHSW, 2012.

However, Mtei and Borghi (2010) warn that the estimates of total out-of-pocket expenditure used to calculate these proportions relied on a variety of secondary data sources which may not be reliable, rather than primary data.

Households still bear a large burden of total health care financing. User fees exist in all public and private health care facilities. Generally there are low fees at the primary level and higher fees at the referral level. There are exemptions in place for priority groups, such as under-fives, pregnant women, the poor and those with selected illnesses (typhoid, chronic illness, AIDS, tuberculosis and leprosy and epidemics) (McIntyre, 2008; Macha et al, 2012). However, the implementation of waivers for the poor is weak, and there are growing concerns that the waivers are tend to be pro-rich and are not having the desired effects (Mtei and Mulligan, 2007; Haazen, 2011). People covered by prepayment schemes do not pay user fees if the service is within the benefit package (McIntyre, 2008).

A small proportion of total health care financing consists of contributions to prepayment or health insurance schemes. The Tanzanian Ministry of Health and Social Welfare (MoHSW) estimates that only 12% of the total population is covered by health insurance (Mtei and Borghi, 2010; Macha et al, 2012). Health insurance in Tanzania is very fragmented and can be described by target groups:

- Civil servants are covered by the largest compulsory prepayment scheme of the National Health Insurance Fund (NHIF). The scheme offers comprehensive benefits to the formal sector. The contribution rate is 6% of payroll deduction. Half of this is paid by the employer and the other half is paid by the employee (Haazen, 2011; Borghi et al, 2013; McIntyre 2008). The NHIF covered about 5% percent of the total population in 2008 (Mtei and Borghi, 2010).
- Private employees contribute 20% of their salary to the National Social Security Fund (NSSF), which covers 23% of the private formal sector. This contribution is equally shared between the employee and employer. As part of its benefit package the NSSF introduced the Social Health Insurance Benefit (SHIB) scheme in 2005. The contribution for the SHIB is drawn from the total NSSF contribution. NSSF members have to register with the SHIB, but only 13% have done this so far (Borghi et al, 2012; McIntyre, 2008). There is also limited private voluntary insurance for formal sector employees, accounting for 3% of total health care financing (McIntyre, 2008).

- There are two voluntary community based health insurance schemes targeting the informal urban and rural groups within the population. The Community Health Fund (CHF) is for the rural dwellers and costs between US$4.2 and US$12.7 (T Sh 5–15,000) per household per year. It offers limited benefits in public lower level facilities. Tiba Kwa Kadi (TIKA) is a similar scheme for urban dwellers (Macha et al, 2012; Mtei and Borghi, 2010; Borghi et al, 2013). The CHF was introduced as a pilot in Igunga district in 1996 and extended to the whole country in 2001. It was managed under the directive of the Ministry of Health and Social Welfare on the advice of The World Bank. The idea of the scheme is "to build up a risk pooling mechanism protecting the population, which at the same time will be able to contribute to improved quality of health care, improved health care management in the communities through decentralization and community empowerment, and affordable, equitable access to health services for rural population and informal sector communities throughout the year" (Stoermer et al, 2011; CHF, 2001). CHF/TIKA coverage is about 4% of the total population (Mtei and Borghi, 2010).

The NHIF and NSSF collect health insurance payments directly from their members. Each has one risk pool and boards overseeing the operation of the funds (McIntyre 2008). The NHIF is under the Ministry of Health and Social Welfare. However, it is operating independently under the management of a board of directors (Mtei and Borghi, 2010; Borghi et al, 2013). Providers are reimbursed on the basis of fee-for-service (Borghi et al, 2013).

In 2009, the NHIF took over the management of the CHF from the Ministry of Health and Social Welfare (MoHSW) through a Memorandum of Understanding (MoU) valid for 3 years. It is considered as the first step towards the merger of these schemes (Borghi et al, 2013; Stoermer et al, 2011). The Community Health Fund (CHF) and TIKA have risk pools per district managed by the district council. However, the user fees are collected by the health facilities and the funds are held at the facility level, so they are effectively the risk pool (Haazen, 2011; McIntyre, 2008). Contributions to these schemes are usually flat rates and are decided by the communities of the different councils. The member's contributions are matched by a 100% grant from the government. Funds are collected at health facility level and remitted to the district; they can be used for health related purposes such as purchasing drugs and equipment (Borghi et al, 2013; Stoermer et al, 2011). From their income councils should pay a premium for the poor (McIntyre, 2008; Haazen, 2011; TGPSP, no date).

The CHF in Tanzania is said to be financially sustainable. It cannot run into deficit because it redistributes the collected funds rather than paying for the rendered services of the health system. If the available funds remain the same, the health facilities themselves can run into financial problems during years of high usage by the CHF members (Stoermer et al, 2011). At the same time, the modest amount of CHF premiums (only 3.5 to 7 USD per year) can also be a financial risk to the CHF and providers since the amounts usually do not reflect the costs incurred for providing primary health services, but are determined on the basis of social and political acceptability (Stoermer et al, 2011).

The CHF at the level of districts is managed by the Council Health Service Board (CHSB). This board consists of medical professionals and community representatives. Every district introducing the CHF has established a CHSB covering its entire population. The task of CHSB is to oversee cost sharing fund management and use. A district CHF coordinator is responsible for reporting on the collected user fees and membership levels. The NHIF is encouraging districts to employ this coordinator full time (Borghi et al, 2013).

5. Expenditure

5.7 Botswana

As of 2010, the newly created Department of Health Policy, Development, Monitoring and Evaluation (HPDME), located within the Ministry of Health, has responsibility for health financing policies and strategies in Botswana (UHC Forward, no date b). However, the Ministry of Finance and Development Planning oversees all government budgets (Health Observatory, no date). There is a dual budget process for separately reconciled recurrent and capital budgets and budgeting is guided by sector strategies (Health Observatory, no date).

Unsurprisingly given revenue sources, in recent years the MOH has been the major financing agent, controlling an average of 43.6% of total health expenditure (Alfred, 2012). Private health insurance schemes managed an average of 11.3% of total health expenditure while the National AIDS Coordinating Agency (NACA) controlled 10.8% of total health expenditure (Alfred, 2012). Resource allocation has been described as following “infrastructure rather than health needs of the population” (Alfred, 2012).

Botswana is in the process of developing an essential health benefit package. A 2011 national policy document stated that "the MOH shall define the comprehensive set of essential health services with special emphasis on health promotion and preventive health care, using well-articulated and transparent criteria based on the epidemiological, technological, geographical, economical and socio-political situation of the country. All cost-effective interventions in priority programs as such as HIV and AIDS, Tuberculosis, Reproductive and Child Health, Accidents and Emergency, and others shall be part of the essential health services package (EHSP)." In early 2014 the status or costing of the essential health benefit package was unclear.

5.8 Gabon

Benefits covered by health insurance in Gabon are described by the types of services. Services include external or ambulatory care, hospitalization, pharmaceuticals, equipment and evacuations abroad. All categories of the population have access to the benefit package. Outpatient medical consultations, nursing, dental care, examinations (radiological and or medical imaging), laboratory tests, small surgery and any other services for medical and paramedical for an outpatient are included in the benefit package. Maternity cover benefits including antenatal care, drugs, laboratory tests, radiology and Medical Imaging on pregnancy, childbirth are covered (Musango and Aboubacar, 2010). A range of hospital costs are also covered, including costs for medical, surgical and medical technology necessitated by the condition of the patient hospitalized; paramedical services are also included in the benefit package; maternity services (Musango and Aboubacar, 2010).

Activities of health promotion, prevention, screening and social care remain the responsibility of the Ministry of Health and are therefore excluded from the benefit package, with the exception of pre- and post-natal consultations and related benefits such as monitoring of child malnutrition (Musango and Aboubacar, 2010).

5.9 Ghana

In Ghana the MTEFs are based on detailed bottom up activity costing. Decisions regarding allocation of resources are done by the central government and resources are earmarked from the centre to specific programs. Local authorities therefore have little power over decisions regarding budgets and expenditure (Schieber et al, 2012). Resource allocation to the health sector is reportedly not recorded clearly or in a transparent way, therefore it is difficult to trace how the funds are used. In addition, delays in transfer and release of funds by the GOG and NHIS greatly reduce accountability and budget transparency, although this is reported to have been solved as of 2011 (Couttolenc, 2012; Toonen, 2014).

The Government of Ghana finances almost all personnel expenditure. Non-personnel recurrent costs are funded by non-government resources such as development partners' funds, internally generated funds (IGF) and NHIS reimbursements (Couttolenc, 2012).

The MoH under Act 525 of 1996 (Ghana Health Service and Teaching Hospitals Act), delegated the responsibility to manage nearly all public facilities to a semi-autonomous entity, 'Ghana Heal;th Service' (GHS) (Couttolenc, 2012). This act defined the 'de-linkage' of the MOH in two: the MOH (policy making) and GHS (service delivery). The mandate of GHS is ensuring accessibility of health services at community, sub-district, district, and regional levels. The GHS manages majority of the healthcare facilities and most of the public financial resources in this sector (Couttolenc, 2012). The MoH is responsible for policy- and strategy development, resource allocation, general coordination and oversight of the system including management of three teaching hospitals. Operational responsibilities have been delegated to the GHS. At the regional level, GHS Regional Health Administration (RHA) is responsible for providing secondary hospital care through regional hospitals (RHO) and coordination of districts' health activities and planning. The DHA/ DHMT of GHS coordinates all District Hospitals, health centers and primary care facilities – those managed by GHS as well as those from the private sector - like those from Faith Based Organisations (Couttolenc, 2012).

Ghana uses a financial resource allocation system designed to equitably allocate general tax and pooled donor funds (called 'pooled funds') between geographic areas (McIntyre, 2007) – which followed the allocation criteria of national MOH funding. After taxes are centrally collected, also at central level the need-based resource allocation formula is used to allocate recurrent expenditures up to the regional and district levels. This takes into account the number of people living below the poverty line, under five mortality rate and regional population size (McIntyre, 2008). Fifty percent of MoH expenditure is on district-level facilities, however 2/3 of district level expenditure (salaries, capital costs) is done centrally (Couttolenc, 2012). Generally funding of provision of health services at district is done through the following channels; the GHS structure of DHAs/ DHMT, which are responsible for health care activities and services at district level and through MoH managed vertical programs. DHAs and or DAs (Local Governments) may propose to DHMT/ RHD but in the end two third funds are managed are managed by the central government. Funding is also done through the

DAs own structure of the Ministry of Local Government and funding is done though supporting activities through DHAs (Couttolenc, 2012). This has started to become effective in 2013. GHS has been structured into Budget Management Centers (BMCs) for the purposes of planning and budgeting. More than 300 BMCs have been created, one for GHS headquarters, 10 Regional Health Administration (RHA), 8 Regional Hospitals, 110 District Health Administration (DHA), 95 District Hospitals, and 110 Sub-District BMCs. The BMCs have their own budget allocation and are responsible for defining budget allocations and executing the budget (Couttolenc, 2012).

In Ghana there is also some limited risk-equalization within the context of the NHIA, between the individual DMHIS (District Mutual Health Insurance Schemes). Since the implementation of the NHIS in 2004, tax-funded (incl. minimal donor contributions) monies have been allocated to regions according to population size, deprivation and under five mortality (McIntyre, 2007). Funds are allocated to the DMHIS based on number of registered poor people and number of registered SSNIT (social security fund) members. The NHIA only funds recurrent costs, with limited funding of capital costs.

5.10 Kenya

Public financing for health is subject to the national budget cycle, based on the Medium Term Expenditure Framework (MTEF) cycle (Healthy Action, 2011). The Ministry of Finance sets three-year budget ceilings for each sector in Kenya, and annually the Budget Outlook Paper developed by the Ministry of Finance and Cabinet determines the annual resource allocation for the health and education ministries, guided by the Medium Term Strategy of Vision 2030 (Healthy Action, 2011). Thereafter, the MOPHS and MOMS create a budget based on what the Ministry of Finance has said

it will allocate (Healthy Action, 2011; Luoma et al, 2010). The budget is prepared through multi-ministry Sector Working Groups (SWGs) to which both MOPHS and MOMS send representatives (Healthy Action, 2011). Districts and other stakeholders are encouraged to be involved through sector hearings (Healthy Action, 2011). Additionally, districts are responsible for developing annual operations plans (AOPs) with corresponding budgets, which are submitted to district headquarters for consideration and resource allocation (Chuma and Okungu, 2011). Luoma et al (2010) report that these plans are not considered when budgetary decisions are made at higher levels, meaning that AOPs are often not fully funded, forcing districts to adjust their plans, budgets and targets during the implementation process.

MOH funds come from the Ministry of Finance where the national treasury is situated; once received by MOMS and MOPHS, they transfer the funds to District Health Management Boards (Chuma and Okungu, 2011; Healthy Action, 2011).

Multiple actors (known as financing agents) make decisions about how health resources are allocated. In 2009-2010, financing agents included the MOH (27.2%) and other ministries implementing health programmes, the National Hospital Insurance Fund (NHIF, 6.7%), private health insurance firms (4.7%), private firms (2.7%), households (OOP spending, 24.5%), local authorities (0.9%), the National AIDs Control Council (NACC), Parastatals (2.4%), NGOs (27.8%) and donors (1.8%) (MMS and MPHS, 2011). Recognizing this fragmentation, MOPHS and MOMS, together with other stakeholders including donors, are currently developing a coordinated health financing strategy with a long-term, fiscally sustainable, equitable, and efficient approach to financing health services in Kenya ((Luoma et al, 2010).

There are two resource allocation formulas in Kenya used to allocate resources to primary level facilities (dispensaries and health centers) and district hospitals: either on the basis of variables related to population structure, disease burden, infrastructure, poverty levels, utilization and hospital capacity, or by incremental historical allocation (Chuma and Okungu, 2011).

Kenya has a mixed financing system. It is reliant on supply-side strategies for primary care, particularly for purchasing inpatient services for some populations (Lagomarsino et al, 2012). Output-based aid through vouchers is an example of demand-side approach to finance health care through subsidizing health care clients and paying when services have been provided.

A review of Kenya's National Hospital Insurance Fund showed that 45% of total revenues in 2010 were administrative costs. Because recurrent costs (including salaries) account for 71% of expenditures, reportedly little can be spent on capital items including expansion, repair or replacement of health facilities and equipment (Luoma et al, 2010). User fee revenues collected by facilities are retained by the collected facility and can be used for purchasing medical supplies and hiring casual staff (Luoma et al, 2010).

Although there are reports of budget deficits causing lack of adequate drugs and pharmaceuticals, staff shortages and poor maintenance of equipment, transport, and facilities, at the same time under spending has also been a problem in the past due to coordination issues between Annual Operational Plans (AOPs) and the Medium-Term Expenditure Framework (MTEF) (Nyakundi et al, 2011; Luoma et al, 2010).

Public providers are allocated a budget and employees paid monthly salaries (Chuma and Okungu, 2011). A daily flat rate is used to pay private NHIF accredited facilities based on range of available facilities including X-rays, intensive care unit, number of health personnel, laboratories, operating theatres, overall area occupied, number of wards and ambulances. The accreditation score determine how much a facility gets paid. Private health insurance pays case-based fees (DRG) or fee-for-service to accredited hospitals (Chuma and Okungu, 2011). Faith based facilities are often allocated budgets by donors (Chuma and Okungu, 2011).

The NHIF benefit package basically covers all diseases and maternity care without a copayment at government facilities (Chuma and Okungu, 2011). NHIF covers limited inpatient health care costs only although a 2012 court case will allow the fund to expand to include outpatient care as well (Luoma et al, 2010). Mulupi et al (2013) reports a comprehensive cover for inpatient services in public and faith-based facilities by the NHIF.

The National Health Sector Strategic Plan (NHSSP) II (2005-2010) introduced the Kenya Essential Package for Health (KEPH). The KEPH is unique is that it defines essential services according to six life cycle cohorts :

- Pregnancy and newborn (up to 2 weeks)
- Early childhood (to 5 years)
- Late childhood (6-12 years)
- Adolescence and youth (13-24 years)
- Adulthood (25-59 years)
- Elderly (60+ years)

Additionally, care is organized into six levels :

- Level 1: Community
- Level 2: Dispensaries/clinics
- Level 3: Health centres, maternities, nursing homes
- Level 4: Primary hospitals
- Level 5: Secondary hospitals
- Level 6: Tertiary hospitals

Both promotive/preventive and curative services are included for all cohorts.

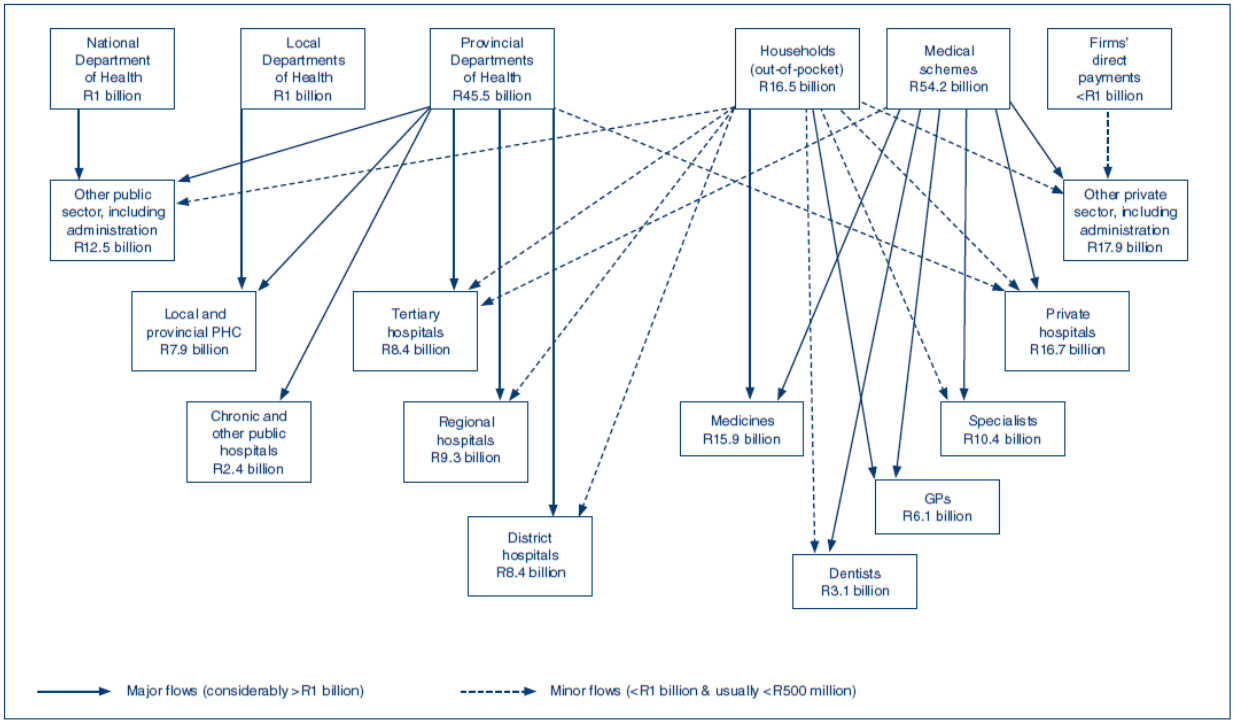
The cost of the package per capita was estimated to be USD 25.8 in fiscal year 2005/06 and expected to grow to USD 35.2 in fiscal year 2009/10. When non-KEPH services are included, the costs increase to USD 36.9 in 2005/06 and grow to USD 50.22 in 2009/10. Members are charged a copayment of KES15000 for surgeries at faith-based and some private for-profit facilities. User fee waivers for the poor exist on paper but have not been effective in practice (Chuma and Okungu, 2011).

5.11 South Africa

Medical schemes are the largest financial intermediaries in South Africa, with 46% of health care expenditure flowing through them (McIntrye and Thiede, no date). Forty percent of total health care funds flow through public sector intermediaries, including national, provincial and local departments of health (McIntyre and Thiede, no date; Mills et al, 2012). Figure 4 overleaf shows the complicated system of health care expenditure in South Africa as of 2005.

The National Health Insurance Fund (NHIF) has been established as an autonomous, government-owned and publicly administered entity which reports to both the Minister of Health and Parliament (Department of Health, Republic of South Africa, 2011). Once fully operational, sub-national offices will manage nationally negotiated contracts with accredited and contracted providers (Department of Health, Republic of South Africa, 2011). NHIF will pool funds and purchase as a single-payer, although a multi-payer system is also being explored as an alternative which would allow private medical schemes to charge the government for a proportion of the treatment they deliver to their clients (Department of Health, Republic of South Africa, 2011; Craven, 2011). DOH will continue in its overall stewardship role as well as being a major provider of services and responsible for infrastructure development (Department of Health, Republic of South Africa, 2011).

Figure 4: Health care expenditure in South Africa, 2005 (Rand billion)



Source: McIntyre and Thiede, no date.

In the 1990s provincial inequalities in health financing were a large problem, with the most well-resourced province spending five times per person what the least resourced province was spending in terms of public financing for health (McIntyre and Thiede, no date). A change in policy gave the role of redistribution of funds between provinces to the National Department of Health (McIntyre and Thiede, no date). However, a fiscal federal system introduced in the late 1990s then gave provinces the power to allocate their budgets between sectors as they wished, which led to wide discrepancies in funding for health once again (McIntyre and Thiede, no date; Botha and Hendricks, 2008). Recent reports indicate the government is again redistributing funds between provinces and to high priority areas to reduce disparities (Ndlovu, 2013; Mills et al, 2012). This will be further continued under NHI (Department of Health, Republic of South Africa, 2011).

Declining budget allocations to provincial and local government departments have been reported as a result of budget allocations not keeping up with population growth, declining medical scheme contribution which means more people relying on the public sector and a changing disease burden (Botha and Hendricks, 2008).

In the 1990s the South African health financing system suffered from large allocative inefficiencies, with 89% of expenditure going to hospitals and the rest for primary care (McIntyre and Thiede, no date). This has now reduced to 77.5% for hospitals and 22.5% for primary care in 2005 (McIntyre and Thiede, no date). Additionally, in 2005 a third of expenditure went to the district level (primary care and district hospitals) (McIntyre and Thiede, no date).

Several efforts in the 1990s (Medical Schemes Act 1998 and White paper on transformation of the health sector (1997)) sought to control cost escalation and promote efficiency by integrating activities of the public and private sector (Dambisya and Modipa, 2009). Despite this, health sector inflation consistently outpaces consumer price index inflation, indicating that healthcare costs are escalating at a higher rate than the rest of the economy (Dambisya and Modipa, 2009). The most efficiency gains have been made with regards to pharmaceuticals, with the National Drug Policy (1996) lowing the cost of drugs in both the public and private sectors and introducing measures to

promote cost-effective and rational use of drugs (Dambisya and Modipa, 2009). The 2002 Medicines and Related Substances Amendment Act introduced transparent, non-discriminatory pricing (Dambisya and Modipa, 2009).

5.12 Tanzania

On the national level the policy guidelines and subsidies of CHFs are determined by Ministry of Health and Social Welfare (MoHSW) and the Prime Minister's Office for Regional and Local Government (PMO-RALG). The overall management of the CHFs is done by the NHIF. Aside from the district level, the CHFs are also integrated in the institutional structure of the ward and the village. The district and municipal councils have authority over the CHF scheme in their area. The Council Health Service Board (CHSB) in the district is responsible for allocating funds and verifying the collection and expenditure of funds. On the ward level the Ward Development Committee (WDC) is responsible for sensitizing and mobilizing community members and providing recommendations. On the village level the Village Councils provide information and mobilize the communities. Finally, the Health Facility Governing Committee (HFCG) of each facility develops the budget and activities of the health facility and assists in the enrolment of community members (Stoermer et al, 2011).

Taxes are centrally collected and allocated to different sectors based on government priorities which include education, health and infrastructure. Allocation of resources to districts for primary health care and district hospitals is based on a needs-based resource allocation formula that takes into account population size and under-five mortality (McIntyre, 2007). Funds for regional hospitals are allocated to regional authorities. Risk equalization does not exist between the different prepayment financing schemes (McIntyre, 2008).

The provider payment mechanism used in NHIF is fee-for-service. The private sector (NSSF-SHIB) uses capitation and some fee-for-service. For the poor with CHF/TIKA, providers are largely reimbursed on a capitation basis, and facilities use CHF revenue to support service delivery (Haazen, 2011).

The benefit packages offered under both NHIF and NSSF-SHIB comprise of a broad and full range of services. Packages offered to the poor and informal workers through CHF/TIKA consist mainly of public primary health care and some hospital services, within districts (Haazen, 2011).

6. Purchasing

6.13 Botswana

Purchasing is done by government (at central and local levels) and insurance schemes (Alfred, 2012). Until recently, the Ministry of Health was responsible for provision of tertiary health care while the Ministry of Local Government took responsibility for provision of primary health care (Akinkugbe et al., 2011). There was no available information on the performance agreements applied within levels of ministry of health, the purchasing arrangements governing its links with other ministries and the National AIDS Council. In addition to professional licensure, the MOH registers private facilities through "recognised standards" (Ministry of Health, 2012).

No information was available on the systems and processes for timely payments to providers by Ministry of Health or any methods for ensuring efficiency, equity or quality.

6.14 Gabon

There are 80 public sector, 52 private sector and 83 approved pharmacies under CNAMGS (Mbeng Mendou, 2012). Provider invoices are paid 30 days from date of receipt if in accordance with the CNAMGS requirements. Payment by the CNAMGS ranges from 80-100% of the total invoice amount depending on the beneficiary (see the revenue collection chapter for more on beneficiaries). To date, the CNAMGS has no debts to providers; what may be regarded as debts are reportedly

payments rejected for various reasons including that they are poorly filled, they include excluded services or they fail to follow procedures. No information on purchasing by NACA was available nor was information available on the methods for ensuring efficiency, equity or quality.

6.15 Ghana

The Ghana Health Service and Teaching Hospitals Act (Act 525) of 1996 created Ghana Health Service (GHS) as a separate, autonomous entity (de-linked from MOH in 1997 which would concentrate on policy-making, developing norms and standards) and delegated all managing of supply of services to GHS nearly all sub national facilities and offices in the public sector. As such, GHS manages the largest part of the public financial resources in the health sector (Couttolenc, 2012). GHS in turn has a taken over the same vertical structure by level of government from the former MOH, and has gradually deconcentrated operational functions to GHS' Regional Health Administrations (RHAs) and especially DHMT offices. In spite of this deconcentration (delegation of tasks), devolution (transfer of mandate) of health service provision at the regional and local levels to an autonomous entity (Local Governments) is inconsistent with the general legislation of the MOH, as many reports have pointed out, but consistent with the Local Government legislation. Additionally, as much as 37% of DHAs reported having no knowledge about the government's decentralization policy, and general scepticism has been identified as a potentially important obstacle to the decentralisation policy of GOG in health (Couttolenc, 2012). Lastly, since 2006 a new player came on the scene: the NHIA – which purchases services from both the public sector (so from the GHS) as well as from the private sector, be it for-profit or not.

Providers are accredited by the National Health Insurance Council (Mensah et al, 2010). All DMHIS contract accredited providers, whether public, private or mission, to deliver services to its members. The providers are reimbursed after submission of claims for services. Reimbursements to NHIS to providers are done based on the Diagnostic Related Groupings (G-DRGs) and medicines tariff list (Jehu-Appiah et al, 2011). Providers should receive payment from NHIS within four weeks of submitting a claim, although difficulties in managing payments and claims to providers efficiently have been reported (Witter and Garshong, 2009). Long delays (up to six months) in payments to providers have resulted due to insufficient budgeting for waiver and exemption reimbursements (McIntyre et al, 2008). Consequently, some providers refuse to grant waivers and exemptions due to delays in payment. Drug shortages in public facilities are apparent forcing insured clients to buy drugs in the open market (Jehu-Appiah et al, 2011). Pooled government and donor funds are intended to be used to reimburse facilities for all waivers and exemptions (McIntyre et al, 2008).

To combat these problems, the NHIS ICT system was upgraded with the creation of ultra-modern data centre and the linking of electronic diagnosis to treatment, although problems with the size of the network being too heavy for Ghana's ICT infrastructure ensued (Witter and Garshong, 2009; Toonen, 2014). This also facilitates claims to be made electronically. In 2011 an improvement in reimbursement to accredited health care providers was noted. The NHIA has also made announcements in newspapers to remind providers to submit their claims for prompt reimbursement and inform them of fund transfers to the various schemes with whom they had signed service contract (NHIS, 2011).

Providers gaming on the system and weak controls and verification at DMHIS level have been sighted as factors contributing to exploitation and abuse of the system (Jehu-Appiah et al, 2011). In addition the provider payment systems themselves, DRG and initial fee for service are reported to be open to such abuses (Jehu-Appiah et al, 2011). A provider payment reform was organized in 2012 by NHIF to contain rising costs, rationalize health care provision, eliminate delays in reimbursement of health care providers and improve quality of care. Capitation was also introduced to improve overcome administrative problems with the DRG system and reportedly to improve quality of care through better doctor-patient relationships and accessibility of medical records (Ankrah, 2013; Toonen, 2014). All these initiatives including the introduction of the instant biometric ID cards are intended to eliminate fraud and abuse (Ankrah, 2013).

A specified and broad benefits package of outpatients and inpatients covering 95% of disease burden in Ghana can be accessed at accredited providers (Jehu-Appiah et al, 2011). All services are provided except rehabilitation other than physiotherapy, cosmetic surgery, HIV drugs, assisted reproduction, echocardiography, photography, angiography, orthopaedics, kidney dialysis, appliances and prostheses cancer treatment other than cervical and breast cancer, heart and brain surgery other than those resulting from accidents, organ transplantation non-listed drugs, treatment abroad, medical examinations for visas, VIP wards and mortuary services (Witter and Garshong, 2009). All DMHISs have the same benefit package (McIntyre et al, 2008). Access to comprehensive services is also available to those using publicly and user fee-funded services (McIntyre et al, 2008).

Quality assurance systems were reportedly initially under-funded, but in 2011 NHIA developed Post Accreditation Monitoring Tools to monitor providers and ensure maintenance of quality standards (Witter and Garshong, 2009; NHIS, 2011). Finally, providers should also send quarterly reports to the NHIC (Witter and Garshong, 2009).

6.16 Kenya

While district health funding from MoMS is disbursed to the office of the district medical superintendent, MoPHS pays the office of the District Medical Officer of Health (Healthy Action, 2011). Previous Public Expenditure Tracking Surveys revealed that only 44% of funds and commodities reached the lower level facilities (Luoma et al, 2010).

Output-based aid (OBA) is currently being piloted in four districts for family planning services and health facility delivery, with providers being contracted for the specified services and reimbursed at agreed rates (Luoma et al, 2010). Under NHIF, claims processing has been decentralized to district offices to process claims faster and less expensively (Chuma and Okungu, 2011).. A computerized claim procedures and electronic claims database have also been introduced (Chuma and Okungu, 2011).

NHIF accredits both government and private health facilities (Chuma and Okungu, 2011). The NHIF has an accreditation criteria or manual with a total score of 1600 points. The manual is used to health facilities accreditation every two years. Assessment scores are based on none or all principle (NHIF, 2014). Hospitals are accredited using criteria that consider range of services provided, personnel, bed capacity, infrastructure and equipment (Chuma and Okungu, 2011). Approximately 400 health facilities offering generalized, specialized and emergency healthcare services are accredited (Chuma and Okungu, 2011). The NHIF website (NHIF, 2014) lists 453 accredited facilities, or approximately 5% of the total. In general, Lagomarsino et al (2012) report quality to be a major issue, though the country is in the process of implementing improvements in the facility-accreditation systems.

6.17 South Africa

Currently provincial governments are responsible for purchasing and delivery of public health services (Dambisya and Modipa, 2009). Under NHI, however, there will be clear separation of purchaser and provider functions, although this is not expected to be functional for several years (Matsoso and Fryatt, 2013a; Department of Health, Republic of South Africa, 2011; Matsoso and Fryatt, 2013b). It is envisioned that District Health Authorities (DHAs) will be established and charged with contracting with the NHI for purchasing, supported by NHIF's sub-national offices to manage contracts with accredited providers (Department of Health, Republic of South Africa, 2011). Contracting of providers under NHI started in 2013; NDoH was scheduled to contract 600 private GPs to provide services in the 11 pilot districts (Matsoso and Fryatt, 2013a). The new GP contract model moves away from the fee-for-service model found in the private sector, where medical schemes are ‘passive purchasers’ and reimburse on a fee-for-service basis, towards a risk-adjusted capitation rate (uniform for defined levels of providers) plus allowances for experience, travel, working in rural and/or deprived areas (McLedo and Grobler, 2010; Matsoso and Fryatt, 2013a;

Department of Health, Republic of South Africa, 2011). Additionally, there are performance incentives (both financial and non-financial) initially based on activity data and quality, later to be expanded to include risk assessments and outcomes (Matsoso and Fryatt, 2013a; Department of Health, Republic of South Africa, 2011). Hospital reimbursement will work on the basis of global budgets initially, then moving to DRGs with a strong emphasis on performance (Department of Health, Republic of South Africa, 2011).

Currently private providers are regulated through the “Certificate of Need” system , created by the National Health Act in 2004(McIntyre, 2010). The “Certificate of Need” is issued by the National DOH to private practices and hospitals as well as for “prescribed health technology or high tech equipment” (McIntyre, 2010). In order to obtain the certificate the national DOH considers "need to promote an equitable distribution and rationalisation of health services and health care resources” and “the need to ensure that ownership of facilities does not create perverse incentives for health services providers and health workers" (McIntyre, 2010). However, quality as-such is not examined. In the future, public and private NHI providers will be accredited (UHC Forward, no date c; Department of Health, Republic of South Africa, 2011). There are six quality criteria as well as other criteria that need to be met for accreditation, including minimum service elements, management systems, performance standards and coverage, as well as adhering to referral procedures defined by NHI (Department of Health, Republic of South Africa, 2011). It is anticipated that DHAs will monitor performance of contracted providers and eventually performance and improved health outcomes will be directly linked to the reimbursement mechanism (Department of Health, Republic of South Africa, 2011).

In the move towards accrediting facilities, all 3880 public sector facilities were recently audited (Matsoso and Fryatt, 2013a). NDoH has recently introduced facility improvement teams (FITs) trained in quality improvement; made up of national, provincial and district members, they are deployed post-audit to address problems identified in the audit with a focus on six priority areas: availability of medicines, cleanliness, patient safety, infection prevention and control, positive and caring attitudes and waiting times (Matsoso and Fryatt, 2013a). The FITs initially focused on the worst improving facilities and used performance at the best-performing facilities as a benchmark (Matsoso and Fryatt, 2013a). They reportedly have already covered 1000 facilities (Matsoso and Fryatt, 2013a).

6.18 Tanzania

Each district has its own mechanism of allocating fund to health care facilities. CHF contributions are collected by health facilities and submit the funds to the district and reallocated money upon request. No standard formula is followed to allocate funds. CHF money is pooled at the district level. The money is used for health facilities regardless of who brought in the most CHF contributions (Stoermer et al, 2011).

The benefit package of the NHI covers both inpatient and outpatient care and has restrictions in spending. The main providers of services to NHI members are public facilities. Services provided by public facilities are subsidized using tax revenue by the government. CHF coverage is limited to primary level facilities. A handful of councils have expanded their coverage to include hospital level services (McIntyre, 2008).

Within 60 days of submitting a claim, providers are paid on a fee-for service basis. Payments for primary care facilities are made through the CHF and used according to district health plan and those to public hospitals are deposited into the Health Service Fund. Delays are often experienced in disbursement of funds. Both the NSSF and private voluntary insurance reimburse on a fee-for-service basis. Accredited non-governmental facilities treating CHF members should claim incurred treatment costs (McIntyre, 2008).

No formal mechanism for accreditation is available except by NHIF and NSSF-SHIB. Accreditation for health providers wanting contracts is required by NHIF. Reportedly, all public providers are

accredited even though quality of care is low. Accreditation criteria as determined by MoHSW guidelines include: availability of equipment, facilities and human resources, acceptance of a quality assurance program approved by NHIF, acceptance of standard payment mechanisms and fees of NHIF, adherence to NHIF referral guidelines, agreement with reporting requirements and recognition of patient rights (Haazen, 2011).

7. Governance

7.1 Botswana

The National AIDS Coordinating Agency (NACA) was established through a Presidential Cabinet Directive on 14 December 1999 at the Ministry of Health, and later moved to the Ministry of State President (NACA, no date). Unfortunately no other information on separation and co-ordination of functions; accountability arrangements; monitoring and evaluation systems or stakeholder oversight and accountability could be found about governance in the health financing system in Botswana, other than what is reported in other sections of the review.

7.2 Gabon

CNAMGS is managed by a public autonomous institution under supervision of the Ministry of Social Welfare. It is governed by a Board of Directors with 16 representatives from private and public sectors that meets as necessary when called by the Chair (Mbeng Mendou, 2012; Inoua, 2014). Reports are provided to supervisory authorities (Inoua, 2014).

CNAMGS's Administrative Control department verifies the identity of CHAMGS card holders that receive care in hospitals. The Financial Control board is responsible for monitoring the management of funds. It verifies the regularity of acts of financial transactions and where appropriate, endorse or control markets, supplies and equipment. The Financial Control board also monitors the rate of health services consumption. The Internal Audit Unit, reporting to the Executive Board, is responsible for administrative and financial management. The Statutory Auditors verify the sincerity and regularity of accounts (Musango and Aboubacar, 2010).

The CNAMGS has a fraud department that performs a variety of checks on practitioners, health facilities and the insured. It also controls invoices and all services provided by health facilities before authorizing payment. Invoices are paid out if in accordance with CNAMGS agreements 30 days from the date of receipt. Unpaid invoices are returned to the health providers who will discuss the disputed invoices with the fraud department.

Unfortunately no other information on separation and co-ordination of functions; accountability arrangements; monitoring and evaluation systems or stakeholder oversight and accountability could be found about governance in the health financing system in Gabon, other than what is reported in other sections of the review.

7.3 Ghana

The National Health Insurance Council (NHIC) was established to oversee the NHIA and license and monitor service providers under the scheme. It's official objective is to "secure the implementation of a national health insurance policy that ensures access to basic healthcare services to all residents" (National Health Insurance Act, 2003).

Responsibilities include:

1. Registering, licencing and regulating health insurance schemes including supervising their operations
2. Accrediting healthcare providers, maintaining a register of accredited providers and monitoring their performance
3. Ensuring that healthcare services rendered to beneficiaries by accredited healthcare providers are of good quality

4. In consultation with DMHISs, determining the amount of member contributions
5. Approving health identity cards for insurance scheme members
6. Providing a mechanism for resolving complaints by schemes, members of schemes and healthcare providers
7. Advising the Minister on health insurance policies
8. Providing public education on health insurance
9. Devising a mechanism for ensuring that the basic healthcare needs of indigents are adequately provided for
10. Managing the National Health Insurance Fund

The Council performs many of the tasks through the National Health Insurance Authority (NHIA). The NHIA regulates the market, including accreditation of providers, agreeing on contribution rates within schemes, resolving disputes, managing the NHIF and approving NHIS membership cards (Witter and Garshong, 2009). In the new design, the NHIA has also become the implementing agency, next to its role of regulator: the district schemes (DMHIS) have become part of the NHIA in 2011. DMHISs are governed by a Board of Trustees and Scheme Managers (Mensah et al, 2010).

The Ghana Health Service (GHS), established in 1996 as a requirement of the 1992 constitution, is an autonomous Executive Agency responsible for implementation of national health policies. It is governed by the Ghana Health Service Council. Employees are no longer part of the country's civil service nor do managers have to follow civil service rules and procedures, measures designed to give the GHS the managerial flexibility not always possible under the civil service (Ghana Health Service, no date).

Officially, the Ministries of Health, Local Government and Finance are responsible for monitoring and evaluating the performance of districts with respect to improvements in health status (Witter and Garshong, 2009), in practice this is done by GHS while the NHIA is becoming more and more important in holding providers to account on health results. There is a Health Complaints Committee in every district where the NHIC has an office (Seddoh et al, 2011).

7.4 Kenya

In 2008, the Ministry of Health and Sanitation was split into the Ministry of Medical Services and the Ministry of Public Health and Sanitation, coordinated by a Health Sector Coordinating Committee, which is alternately chaired by the permanent secretaries of both ministries (Healthy Action, 2011). Each ministry has independent operational units at the district level and distinct funding structures (Healthy Action, 2011). Promotion of safe motherhood, antenatal and family planning pillars fall under the MoPHS, while safe and skilled delivery and post-partum care fall under the MoMS (Healthy Action, 2011).

The government reportedly lacks a mechanism for collecting information on contributions and utilization of funds by the various stakeholders despite the importance of these contributions in the enhancement of service delivery in the health sector (TI-Kenya, 2011). Also, there is no specific agency to ensure appropriate use of public funds allocated to health providers, although health facilities are held accountable for their purchasing decisions through a management board, to which they must submit monthly financial reports, and periodic supervision visits from national authorities (Chuma and Okungu, 2011; TI-Kenya, 2011). Government spending on health is published in financial expenditure reports, MoH budget, expenditure documents, periodic newsletters, website reports, national health accounts, health facility budget and reported to the Parliamentary Public Accounts Committee (PAC), who releases reports two to three years later (TI-Kenya, 2011).

Audits are supposed to be carried out by government designated internal auditors but are reported to be limited (Danida, 2011). Between 53.8 and 84.8% of health providers, heads of facilities and departments participating in a recent TI survey reported existence of audit procedures and district and facility levels. An external audit is conducted by the Kenya National Audit Office (KENAO) that is responsible for auditing all government institutions (TI-Kenya, 2011). No other information on

separation and co-ordination of functions; monitoring and evaluation systems or stakeholder oversight and accountability could be found about governance in the health financing system in Kenya.

7.5 South Africa

Since 1994, as outlined in the ANC National Health Plan, South Africa has had a single public health system under the National Department of Health (DOH) and nine provincial DOHs which oversee 53 health districts (Dambisya and Modipa, 2009). In this quasi-federal system, the national level has responsibility for overall strategic direction for the health system, ensuring that health policy is translated into appropriate legislation and monitoring implementation of national policy (Mills et al, 2012). Provinces have their own provincial MOH with an allocated budget from provincial government (McIntyre and Thiede, no date; Botha and Hendricks, 2008). The provincial MOH oversees all health services within the province (Mills et al, 2012). The local government is only responsible for municipal health services which are largely limited to environmental health (Mills et al, 2012).

The National Health Amendment Bill recently established the Office of Health Standards Compliance (OHSC), a juristic body outside the NDoH (Gray, Vawda and Jack, 2012-13). It currently conducts voluntary inspection of facilities and runs the quality improvement systems to ensure facilities are ready for accreditation (Gray, Vawda and Jack, 2012-13; Matsoso and Fryatt, 2013a; Department of Health, Republic of South Africa, 2011).

As noted in Section 6.5 under NHI, however, there will be clear separation of purchaser and provider functions, although this is not expected to be functional for several years with District Health Authorities (DHAs) responsible for purchasing with accredited providers. The regulation of providers, accreditation procedures and incentives described in Section 6.5 aim to promote equity, performance outcomes and quality of services. DHAs will have the role of monitoring performance of contracted providers and eventually performance and improved health outcomes will be directly linked to the reimbursement mechanism (Department of Health, Republic of South Africa, 2011). The mechanisms for stakeholder oversight and accountability could not be found in the literature.

7.6 Tanzania

Tax revenues are collected by the Tanzanian Revenue Authority (TRA) which is a semi-autonomous institution organized under the general supervision the Ministry of Finance. The Minister of Finance can give directives regarding performance and function to the TRA Board and Directors and they are required to comply. TRA consists of a board and the following four revenue departments; tax investigation department, large taxpayers department, domestic department , customs and excise department (Fjeldstad and Heggstad, 2011).

A 2008 technical review of the Council Health Services Board (CHSBs) by Flora Kessy from Ifakara Health Institute (IHI) indicated that “a key element in efforts to strengthen Councils’ health services has been establishment and strengthening of the institutions and organizations crucial in promoting good governance, planning, budgeting, implementation and monitoring of delivery of local services, and community participation in these processes,” referring to the CHSB and the Facility Governing Committees (FGCs) new as of the mid-1990s (Kessy, 2008). Both boards incorporate individuals and civil society organizations in health governance and aim to ensure delivery of “appropriate, equitable and adequate health care services and ensure accountability of the Council Health Management Teams (CHMTs) through review of implementation of the Comprehensive Council Health Plans (CCHPs)” (Kessy, 2008). Additionally, the CHSB decides ways to reallocate CHF resource back to health facilities or use the funds at district level, and otherwise assist in mobilizing financial resources required for improved access to health services (Stoermer et al, 2011; Kessy, 2008). However, the separation of purchaser and provider is possibly muddled by the fact that the CHSB reportedly represents both the interests of providers and those of CHF members (Stoermer et al, 2011). CHSB currently plays a dual role of provider and purchaser of health services, with

both the overseeing of health facilities and implementation of CHFs being done by the CHSB (Stoermer et al, 2011). Additionally, the Tanzania Health System Assessment Report 2010 reported that CHSBs do not always function either at all or as they properly should, the result of a limited understanding of the roles and responsibilities of CHSB members, limited capacity and a lack of culture around community and citizen involvement in governance (USAID, 2011).

Because each prepayment scheme operates under its own regulatory authority and legislation, a general regulatory framework is needed to characterize roles and responsibilities of stakeholders. This will enhance transparency regarding the roles, rights, and responsibilities of each stakeholder and, in turn, ensure accountability by stakeholders. At the moment, a Social Security Regulatory Authority (SSRA) has been established; however there is lack of clarity about what aspects of the health insurance market, other than the NSSF, it will be able to regulate (Haazen, 2011).

Decentralization was introduced in the 1990s by the government of Tanzania as part of the health reforms. Major transformations from a centralized administrative system to a decentralized system have occurred as a result of the decentralization policy. Local government plays a bigger role in health service provision. The CHF Act of 2001 has given the district and municipal council authority over the CHF scheme. Responsibilities of the CHSB include monitoring the operations and activities of the scheme, mobilizing and allocating funds, creating exemption criteria for poor households, verifying the collection and expenditure of funds, and reviewing reports from the WDC. Finally the Health Facility Governing Committee HFGC of each health facility is responsible for developing a budget and plan for the activities of the health facility as well as assisting in enrolment of community members into CHFs and collecting the corresponding contributions (Stoermer et al, 2011).

The NHIF for the formal public sector is accountable to a separate board of directors with a regulatory oversight. There are currently ten board members The stakeholders represented on the board of directors of the NHIF, and their duties, powers or obligations on public reporting could not be found in the literature. The Social Security Regulatory Authority oversees the NSSF-SHIB. The CHF and TIKA are accountable to the Ministry of Health and the National Health Insurance Fund (Haazen, 2011).

8. Discussion

This review of six African case study countries has revealed a wide range of health financing models and practices. This information is organized in Table 2 overleaf, where information is missing or inadequate, this is noted.

This discussion section is organized in the same logical flow order as the report, first reflecting on the options for collection of taxes, then examining the options for management and disbursement of taxes at multiple levels, thereafter looking at options for purchasing quality services, and finally examining options for delivery of services. Findings from each chapter are summarized and issues we found interesting are discussed in additional detail. Furthermore, in the appropriate sub-section we reflect on the issues for further inquiry raised in the introduction, including:

- Priorities for guiding resource allocation
- Whether delivering the state's constitutional obligation means explicitly stating services it won't spend on (negative list) or obligating a list of positive services (EHB)
- How to devolve service delivery while also ensuring coordination, regulation and equity
- The role of the private sector: how to negotiate and manage resource allocation, purchasing and regulation/governance of the private sector? how can they contribute to public health goals? Or, how to balance regulation and incentives?
- How to control market issues in health, i.e. cost escalation, wastage, risk skimming, exclusions, inappropriate treatment, excess administrative costs.

We close with some brief conclusions and comment on the major data gaps.

Table 2: Summary of revenue collection, expenditure, purchasing and governance findings, per country

Area	Issue	Botswana	Gabon	Ghana	Kenya	South Africa	Tanzania
Revenue collection	Overview	High amount of public financing (68%) from general taxation; vulnerable to macroeconomic crisis	Taxes on mobile phone companies and international money transfers pay for informal sector workers to be part of health insurance	Increased funding for health by adding 2.5% to existing VAT, contribu-ting 2.5% of social security fund and contributions from the informal sector by having them pay directly to their DMHIS	Still largely financed by OOPS; 10% of population has health insurance	Less than 44% total health expenditure covers approximately 85% population. 10% covered by the private sector consumes more than 55% of financial resources for health	Very low government health expenditure as a percent of total govt expenditures; continued reliance on donor funding; fragmented insurance schemes
	Done by whom	Information not available	Tax authorities	Three bodies collect tax	Taxes and payroll contributions are collected by the Kenya Revenue Authority	Multiple authorities	General tax revenue collected by the Tanzanian Revenue Authority; insurance schemes collect directly from members
	How held	Pooled by government at both central and local levels	National Insurance and Social Welfare Fund (CNAMGS)	Tax funds are pooled by the Revenue Agency Governing Board of the Ministry of Finance and Economic Planning	Unclear	Medical schemes operate own pools; move towards NHI central fund	Separate pools
	What used for	Information not available; essential health benefit package is reportedly being developed	Defined package of benefits	NHIS: Defined package of benefits	NHIF has defined package of benefits; money in joint donor baskets reportedly for specific purposes	NHI: defined package of benefits	NHIF and NSSF: defined package of benefits
Expen-diture	How planned, allocated, monitored	Resource allocation described as following "infrastructure rather than health needs of the population" (Alfred, 2012); no further details on how budgeted or managed	No information available	Pooled funds should be redistributed to regional and district levels taking into account the number of people living below the poverty line, <5yr mortality rate and regional population size, though in practice done according to demand of services (or claims). Active MTEF process. Semi-autonomous GHS manages public facilities. 300+ budget management centres for defining	Funds come from Finance to Health to District Health Management Boards. There are two resource allocation formulas: either on the basis of variables related to population structure, disease burden, infrastructure, poverty levels, utilization and hospital capacity, or by incremental historical allocation	40% total health care funds flow through public sector intermediaries, including national, provincial and local health departments. South Africa once faced resource allocation problems, and a very unequal distribution of resources across provinces. Efforts by the national level to redistribute to	CHF subsidies determined by Ministry of Health and Social Welfare and Prime Minister's Office. Uses a needs-based formula to allocate resources to districts for primary health care and district hospitals; districts then have their own mechanisms for allocating funds further

Area	Issue	Botswana	Gabon	Ghana	Kenya	South Africa	Tanzania
				budget allocations and executing budgets		provinces were foiled by provinces,	
Purcha-sing	Provider contracting and payment	Purchasing done by both government and insurance schemes; no further information available	CNAMGS approves facilities (public and private sector and pharmacies) and reimburses on the basis of fee-for-service; no further information available	Initial problems with provider claim processing. NHIA was said to be autonomous but was then established under the control of the Ministry of Health, who also oversaw providers, which meant in reality the NHIA had little autonomy	NHIF reimburses on a daily flat rate while private health insurance is either DRG or fee-for-service; new models of payment based on the facility's accreditation score and performance incentives. High admin costs (small pools mean duplicate admin)	Provider reimbursement under NHI by capitation with or without risk adjustment, some performance incentives being introduced in in new NHI	Variety of reimbursement mechanisms: fee-for-service (NHIF) and capitation with or without risk adjustment (CHF/TIKA)
Gover-nance	Separation and coordinatio n of functions	No information found	No information found	No information found	No information found	No information found	Separation of purchaser and provider
	Accounta-bility arrange-ments	No information found	No information found	No information found	No information found	No information found	NHIF for the formal public sector is accountable to a separate board of directors with a regulatory oversight; CHF, TIKA account-able to MOH, NHIF
	M&E including stakeholder oversight	No information found	CNAMGS is managed by a public autonomous institution under supervision of the Ministry of Social Welfare and governed by Board of Directors	National Health Insurance Council (NHIC) oversees the NHIA; Ministries of Health, Local Government and Finance are responsible for monitoring and evaluating the performance of districts with respect to improvements in health status	Govt health spending published in financial expenditure reports, MoH budget, website and expenditure reports, periodic newsletters, national health accounts, health facility budgets and reported to Parliament Public Accounts Committee (PAC), who releases reports two to three years later	No information found	Council Health Service Board (CHSB) and Facility Governance Committees

8.1 What are the options for collection of revenues?

This review has revealed a variety of options for collection of taxes and other revenues. Three countries highlight the range of revenue sources available for health, from Botswana's health financing system characterised by a high amount of public financing from general taxation to Kenya's system which is still largely financed by OOPS, to Tanzania's continued reliance on donor funding and low uptake of national health insurance. It should be noted that Botswana, where a very large portion of general tax revenue goes to fund health, has been criticized as being particularly vulnerable to macroeconomic crisis, especially since most revenue is linked to international mineral trade (Alfred, 2012; Abt, no date). However, this criticism holds true for many countries of the world and should be a warning for Zimbabwe as increased reliance on revenue dependent on the international market would make Zimbabwe equally vulnerable to global economic trends.

Three countries in this review have made significant progress towards universal health coverage using national 'health insurance schemes' as their instrument. From Gabon's National Insurance and Social Welfare Fund which has managed to incorporate both the formal and partly informal sectors to Ghana's National Health Insurance Scheme, introduced to help combat high OOPS, to South Africa's 14-year transition to National Health Insurance, this review has revealed a variety of ways to set up national 'health insurance schemes.' We say 'health insurance schemes' because the name is a bit of a misnomer. The options used in the case study countries, and in many other countries as well, do not follow the traditional private insurance model of being financed entirely from member contributions. The 'health insurance schemes' we refer to here are generally funded from a pooling of sources including general tax revenue, contributions from employers and employees, donor funds and other sources. In fact, direct user contributions may account for as little as 5% of total contributions, sometimes nil. However, these 'health insurance schemes' do pool funds (and risks) and take on an independent purchasing role. Perhaps not in Africa, but outside Africa there are "Social Health Insurance" schemes that take up non-members/ non-subscribers, too in providing services. This point is discussed further in subsequent sections.

However, a constraint in using health insurance as an instrument to attain UHC is that it is usually easiest for health insurance schemes to include formal sector employees, as mandatory contributions can be deducted from salaries. There is also tthe risk that covered groups prefer to protect their own benefits than facilitate developments or cross subsidies from wider pooling and new coverage, and so become a negative factor in UHC (as has been the case in Kenya).Too often, the informal sector, and consequently the poorest, will not be included. This is often attempted to be solved by leaving the informal sector to community-based schemes with low penetration and coverage (tried in Tanzania, where penetration only reached 4% of the total population), and therefore limited financial and risk pooling. Gabon's national health insurance system is unique in that it was first rolled out to the economically weak, then to civil servants, and finally to the private and broader public sectors. The self-employed (largely in the informal sector) pay a fixed amount based on ability to pay and the poor are cross-subsidized by other sources, such as contributions from mobile phone companies and money transfer companies, each of which pay a percentage of their turnover (Musango and Aboubacar, 2010). Ghana has also found a unique way of increasing funding for health, by adding 2.5% to the existing VAT, contributing 2.5% of social security fund paid by employers and collecting contributions from the informal sector by having them pay directly to their relevant DMHIS (McIntyre et al, 2008). In Kenya, NHIF is piloting the collection of premiums from informal workers through mobile phone premium deductions (Lagomarsino et al, 2012). All this is to say that using health insurance as an instrument to attain UHC and including informal sector workers and the poor is possible, if the term 'insurance' is not understood in a narrow form of a direct contributory and membership scheme, if contributions for the informal sector and poor communities are derived largely from tax based sources and if it includes features of pooling, cross subsidy and population coverage more in line with tax funded national health services. In that case it will become more an equitable independent purchaser of quality care between demand and supply, than a classical insurance scheme.

At one time, most countries in this review had a high level of out of pocket spending which led to health financing reforms being implemented. While out of pocket spending has become unpopular in recent years, it should be noted that some formal payment at point of service is still common in most of the case study countries. In Gabon CNAMGS beneficiaries pay 10-20% of healthcare costs themselves. User fees exist in all public and private health care facilities in Tanzania, although priority groups and an estimated 12% of the population with health insurance are excluded. User fees can partly help to increase funding for health (or even more specific: fund transaction costs of the system) and also may help control frivolous use and other excess demand. User fees or co-payments on top of existing funding may even empower the population, if that payment is accompanied by decision making powers on prioritisation at local level in using central level funding. User fee removal for a portion of society (notably the poor, pregnant women and children under the age of five) can help improve equity in access (although there have been problems with the exemptions not being honoured in practice or official user fees being replaced with unofficial payments) but not always equity in quality of care, as people who do not pay might not receive the same quality of care (CREHS, 2009). However, the administration of user fees collected must be thought through as user fees present both an opportunity for fraud and generally cover only 5% of facility running costs after administrative costs are deducted (DFID, 2010; Gilson, 1998; CREHS, 2009). As a possible solution, Ghana has proposed to introduce a relatively low one-time lifetime payment, since transaction costs of ongoing fee collection may be higher than the sum of the collected fees.

All the countries analysed receive some amount of external funding. External/ international funding is often criticized for coming off-budget and displacing (instead of complementing) government funds which are then allocated elsewhere. Moves have been made to encourage general budget support in which donor contributions are added to the larger revenue pool, which may give more ownership to the country but risks that the funds will be spent on non-health priorities, especially where public financial management systems are weak. As a solution, several countries have set up joint donor pools for sector budget support, such as the case in Kenya where a group of development partners established a joint donor fund with five 'baskets' on particular health issues. We know from our experiences in Zambia in the 1990s that pooled donor funds targeting the districts were stopped as it led to fungibility in the form of increased government spending on tertiary care.

Regardless of the choice and mix of revenue sources, progressivity of these sources should be monitored. Progressivity of tax revenues is highly debated. Some argue that an earmarked VAT like the one introduced in Ghana is relatively progressive because the VAT is applied to items bought by people who do have money, and applied on other than basic goods and not charged on businesses earning below a certain level. Taxes on financial transactions and mobile phone companies, although technically applied at the corporate level – though the final effects on progressivity are not (yet) measured these taxes are often passed on to consumers, leading these types of taxes to be less progressive than they were designed to be. There is an additional ethical debate that arises when discussing taxes on alcohol and tobacco in particular. On the one hand you could argue that people who put their health at risk through these behaviours should have to contribute more; on the other hand, these behaviours may be more prevalent in lower socioeconomic groups, leading one to question if taxing them is ethical? The pros and cons of different earmarked taxes are more fully debated elsewhere (ZEPARU, TARSC, MoHCW, 2013).

When discussing the move towards UHC, the emphasis is usually on collecting more money for health. We have presented a range of options here, including increasing national and local taxes (earmarked or not) as well as 'health insurance schemes'. However, the importance of improving efficiency should not be left out of this discussion. Increasing the tax collecting power of the Ministry of Finance or Treasury including enforcing existing regulations, closing loopholes and finding unique ways to tax the informal sector can generate significant additional revenue. Revenue collection mechanisms can be streamlined and otherwise improved to reduce transaction costs, and funds can be used in more efficient ways, discussed further below.

8.2 What are the options for management and disbursement of taxes at central and operational levels?

Although some countries have set up social health insurance-type schemes for pooling funds, or have pooled funds in semi-autonomous institutions for funding specific services or wider health benefits, they may not have gone so far as to share risks. This is particularly important for countries like Zimbabwe with an HIV prevalence of around 10% and a large poor and vulnerable population. Larger pools are often seen as the preferred option, because economies of scale help reduce administrative costs, and large pools are more likely to be sustainable since both funds and risks are shared. Some countries are moving to combine pools (such as in Kenya), but interestingly Gabon has chosen to operate the fund for the poor separate from the rest to ensure problems from one do not affect the other (Mbeng Mendou, 2012). Small funds do not necessarily mean financial unsustainability of the fund, however, as we saw in Tanzania. Despite operating a small pool, the CHF is said to be financially sustainable, protecting against deficit spending by redistributing the collected funds rather than paying for services. However, this may force providers to reduce services and/or charge at the point of service, meaning the insured could still be open to catastrophic expenses, a situation countries moving towards UHC are trying to minimize.

Although the global macroeconomic situation partly influences the amount of revenue that can be collected, national priority setting determines how much tax revenue is set aside for health. The Abuja target was decided by African governments to be 15% of the national budget, but of the countries reviewed only Botswana is reported to have met the target (17%) while Ghana comes close (14.5% in 2011) (PPDARO, no date). A major issue for Ministries of Health trying to advocate for a larger share of general tax revenue is that there is often an underspending of past budgets because of inefficient procedures that need to be taken before spending can occur. We found underspending problems in Kenya in particular due to coordination issues between Annual Operational Plans (AOPs) and the Medium-Term Expenditure Framework (MTEF), discussed further below.

Most countries engage in some sort of MTEF, a process which essentially translates the country's national health priorities into budgets for the medium term (usually three to five years). In what can be a time consuming process overall, the national level usually makes the first draft and then offers it for stakeholder consultation at the provincial, district and general population levels. A frequently found constraint is that some budget lines are not covered at 100%, which means there is a 'financing gap' and a financing source must be found. Once agreed, usually annual plans are developed each year based on the ceilings established in the MTEF. Although we suspect this to be a problem in many countries, we found reports from Kenya specifically that the annual plans that were then developed 'bottom-up' were not considered at the central level to be fundable at 100%,, forcing districts to adjust their plans, budgets and targets during the implementation process (Luoma et al, 2010). Ghana had a proposal give each district a budget ceiling based on population, burden of disease, which they could then spend as they saw fit, but with pre-agreed targets that needed to be met. This idea was however not applied, possibly due to different mandates between MOH and GHS, because the central level preferred to hold more control over spending, or because there was no management capacity at the operational level. This would need to be further explored.

The case study countries reveal multiple ways of setting priorities to guide resource allocation. In Botswana, resource allocation has been described as following "infrastructure rather than health needs of the population", although it is not clear whether this applies to capital or recurrent budgets (Alfred, 2012). Ghana's resource allocation formula for Ministry of Health funds redistributes pooled funds to regional and district levels taking into account the number of people living below the poverty line, under five mortality rate and regional population size, although it is not specified whether this includes both capital and recurrent budgets (McIntyre, 2008). However, McIntyre (2008) reports that NHIS funds are de facto distributed according to demand for services. Kenya uses two resource allocation formulas to allocate resources to primary level facilities (dispensaries

and health centers) and district hospitals: either on the basis of variables related to population structure, disease burden, infrastructure, poverty levels, utilization and hospital capacity, or by incremental historical allocation as is done in many countries (Chuma and Okungu, 2011). Tanzania allocates resources to districts for primary health care and district hospitals based on a needs-based resource allocation formula, and then districts have their own mechanisms for allocating funds further. South Africa was once plagued by resource allocation problems, particularly a very unequal distribution of resources across provinces. Efforts by the national level to redistribute to provinces were only foiled by provinces themselves, who have authority over their own budgets and chose to distribute their funds in less-than-desirable ways. It is hoped the new NHI will further address this problem by continuing to redistribute funds between provinces and to high priority areas and health needs.

Regardless of the resource allocation formula or system used, we could not find much evidence about the results: have they worked in achieving UHC? Have they improved equity? We argue strongly in favour for monitoring and evaluation systems which can track this, and that results are fed back into the system and adjustments made to the resource allocation formula and process.

8.3 What are the options for purchasing quality services at central and operational levels?

Although when discussing financing for health the emphasis is usually put on raising additional revenue for health, making efficient and equitable use of the available resources is equally important. Here is another area where the 'health insurance schemes' discussed earlier can be helpful. While not traditional insurance schemes in terms of revenue collection, with funding coming largely from general tax revenue as well as other sources, they do operate like traditional health insurance schemes in that they take on the purchasing role. So too do semi-autonomous institutions that manage tax funds for specific service provision (as for example the NACA in Botswana for services for HIV and AIDS) or the CNAGMS in Gabon. A single purchaser can help improve efficiency; compared with an individual patient (who depends on the provider, and who has less knowledge), a large purchaser can negotiate better prices and use contracts to hold providers to account on both results and quality. In the same way, multiple pools can be inefficient. Not only do you reduce financial as well as risk pooling, but you also duplicate administration, which can be significant: a review of Kenya's National Hospital Insurance Fund showed that 45% of total revenues in 2010 were administrative costs. Efficiency gains are therefore of the highest importance, as is controlling cost escalation. South Africa has managed to make progress in this area with regards to pharmaceuticals, although overall healthcare costs are still escalating at a higher rate than the rest of the economy (Dambisya and Modipa, 2009).

In either case, the importance of having a purchasing authority which is autonomous from the Ministry of Health in particular must be stressed. This will create opportunities for greater accountability of both parties and introduce competition that may, if using appropriate measures, help to decrease cost and may improve quality (Abt Associates, 1999). In Ghana for example, the NHIA was said to be autonomous but was then established under the control of the Ministry of Health, who also oversaw providers, which meant in reality the NHIA had little autonomy.

With regards to purchasing, the type of provider payment mechanism is one of the most important issues. Evidence is thin on Performance based contracting, as different types of this approach are being used – different types of contracts, of what was contracted, on what would be the consequences. Most experiences are gained with Performance Based Financing – but even here "evidence is thin" (Witter, 2012). Our case study countries have revealed a variety of options and combinations of options, from a daily flat rate (Kenyan NHIF), fee-for-service (Tanzania NHIF, Gabon's CNAMGS, private health insurance in Kenya), DRG (private health insurance in Kenya) and capitation with or without risk adjustment (CHF/TIKA in Tanzania, new NHI in South Africa). Newer and more innovative models include payment based on the facility's accreditation score (Kenya NHIF) and performance incentives (Kenya NHIF, new NHI in South Africa). There are pros

and cons to each provider payment mechanism, although with all mechanisms proper accounting is required to help control fraud and also split payments between relevant departments. The DRG system may be more precise in establishing how much will be paid for what kind of services; the downside is that this means high administration and monitoring/ verification costs. Capitation will reduce transaction costs, but the risk is that performance (in terms of both quantity and quality) may decrease. Fee-for-services may increase performance but introduces the risk of excluding the worse off and increasing possibilities for fraud, thus leading to an increased need for monitoring and verification. Performance incentives may improve performance, but can lead to providers working towards those areas that are incentivized and ignoring issues that are not linked to an incentive payment (perverse effects).

Provider payment mechanisms often come along with claims processing. From the example of Ghana, we believe there are many lessons to be learned. When NHIS was introduced, initially the DHMIS were not well prepared and lacked the ability to judge the appropriateness of claims. Secondly, many providers presented their claims with many errors, but also claimed what was not permitted to claim. Thirdly, delays in payments at central level (from MOF to MOH, from MOH to NHIA, from NHIA to DHMIS) meant payments from DHMIS to provider were also late and insufficient, based on the last invoice of the DHMIS while the volume of claims was increasing steeply. There was no front-loading of DHMIS by NHIA. For that reason, providers made duplicate claims for insured patients, and eventually from NHIA received duplicate payments. They also made many fraudulent claims that were not accepted by NHIA. Providers sent complaints to the MOH (which is responsible for NHIA), and those claims were paid then, which meant that NHIA was not really autonomous. Interestingly, while Ghana's NHIA has centralized claims processing to process claims faster and less expensively, Tanzania's NHIF has decentralized claims processing to district offices for the same reason.

Another issue which did not come across in the case study countries specifically but which we consider should be addressed is differential payment of public versus private providers. In many cases costs incurred by public providers are subsidised by the government budget (i.e. training, H/MIS work), whereas private providers must fund these costs themselves and don't receive public subsidies. In Ghana, for example, a decision to pay higher unit prices to private providers than to public providers for the same services requires careful analysis and caution as this introduces potentially inequitable public to private subsidies.

And finally a word about fraud. The WHO Bulletin (2011) reported that more than 7% of annual global health care expenditure is lost to fraud. Tackling fraud is challenging, and perhaps counterintuitively, the more layers and controls put in place to help control fraud, the more opportunities exist for fraud. The more people you put in place to monitor fraud, the more people that are susceptible to corrupt practices. Another challenge in deconcentrated systems is that real capacity must exist at all levels, particularly the lower ones, for the system to properly function, although it is well-known that lack of capacity limits many health systems in African and around the world. The PBF approach relies heavily on verification (in the health facility) and of counter-verification (at household level) of reported results – this is one of best remedies so-far to control for fraud.

8.4 What are the options for delivery of services paid by pooled funds?

Achieving UHC generally means also defining the services to be provided, or not provided. This is normally done in the form of a basic or essential health benefit package in a positive list, and/or through excluding services that are not publicly funded in a negative list. The countries included in this review with a basic benefit package have a positive list of services that are included; some also explicitly state services that are excluded. Affordability is an important issue; for example, the financial sustainability of Ghana's NHIS is reported to be questionable given the broad benefits package which covers 95% of health problems, low premiums, limited funding, no co-payments and increasing coverage (Witter and Garshong, 2009).

Several countries have successfully devolved service delivery while also ensuring coordination, regulation and equity. In Ghana, the Ministry of Health is responsible for the general coordination and oversight of the system, but operational responsibilities have been delegated to the GHS, who in turn has gradually deconcentrated operational functions to its Regional Health Administrations (RHAs) and especially DHA offices, albeit with problems and challenges typical in deconcentrated systems. In South Africa's quasi-federal system, the national level has responsibility for overall strategic direction for the health system but provincial MOHs (with their own budget) oversee all health services within the province. Future District Health Authorities (DHAs) will be established and charged with contracting with the NHI for purchasing, supported by NHIF's sub-national offices to manage contracts with accredited providers. Again, a word of caution that deconcentration with delegation of certain tasks and the creation of multiple layers in the system opens opportunities for fraud which need to be carefully controlled. This is less of a problem in devolved systems with transfer of responsibilities. Additionally, prior to devolving responsibilities it is important to ensure the capacities to coordinate exist at lower levels and that a plan exists for who will monitor equity and who has the authority to implement equity-related changes.

On the issue of quality, as previously mentioned, a large autonomous purchaser can negotiate on behalf of patients, hold providers to account through contracts and help ensure quality services are provided. However, this important part of any system must be properly funded, which was a mistake made initially by Ghana's NHIS. They have now put additional resources aside for quality control and introduced Post Accreditation Monitoring Tools to monitor providers and ensure maintenance of quality standards. South Africa's interesting accreditation progress as part of the move to NHI should also be noted. They have introduced facility improvement teams trained in quality improvement to work directly with facilities to quality remedy problems found in audits. And in an interesting combination of provider payment mechanisms and quality assurance, Kenya's provider payment mechanism is linked to the facility's accreditation score.

A final note about the purchasing-provider split: according to Gottret and Schieber (2006), "public provision of health services may also face problems of corruption and inefficiencies cause by budgets that do not generate the appropriate incentives and accountability." This is another reason to split the two functions. Additionally, implementing the purchaser-provider split as well as a basic benefits package may open door for using private providers for public goals, such as delivering constitutionally-guaranteed health care, although this may also raise challenges for UHC. Of the six case study countries Ghana is the most advanced in doing so. The DMHIS in Ghana contract accredited providers whether public, mission or private. South Africa is moving towards this, with the NDoH scheduled to contract 600 private GPs to provide services in the 11 pilot districts starting in 2013 (Matsoso and Fryatt, 2013a). However, an inherent attribute of a private provider is that he/she pursues his/her own interests above public health interests. Therefore, the proper incentives, regulatory and enforcement capacities, controls on cost escalation, wastage, risk exclusion, and other potential sources of inefficiency and inequity from private sector participation must be put in place to effectively manage the private providers' own interests in relation to public health goals. Finally, as purchasing of health services becomes organised it may seem like a natural move for some of the providers (medical doctors with extensive, expensive specialized training) to move into finance and administrative roles. However, here we caution strongly against this, especially in countries with a shortage of skilled providers, as it's not only a waste of capacities but also a missed opportunity to install trained managers with the proper managerial, financial and administrative skill set to help ensure success of any public-private relationship.

9. Conclusions

In summary, this review included a range of examples of health financing systems from African countries which are primarily tax-based, including Botswana, Gabon, Ghana, Kenya, Tanzania and South Africa. We have described the main features of each model as much as the data allowed, and then compared, contrasted and commented critically on different options for revenue collection and pooling, resource allocation or purchasing and governance including institutional arrangements, monitoring and evaluation. We have not concluded there is one correct way to structure a health financing system in order to achieve universal coverage, but have pointed out several important design features as well as suggested some key issues to keep in mind when reforming a health financing system like Zimbabwe's.

In many cases data availability was limited; the level of detail needed to properly describe the health financing system was not available, or was outdated, as many countries have recently undergone reforms that are not properly reported in the literature as of yet. In particular, data from Botswana and Gabon was extremely limited, and data on governance and institutional arrangements was lacking in all countries, although some governance-related information was difficult to disentangle from revenue collection, expenditure and/or purchasing and is therefore already reported in previous chapters. Attempts at interviewing key informants in the case study countries were largely unsuccessful, but we hope the information provided is still useful for feeding into the ongoing health financing policy development in Zimbabwe.

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