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Provider Purchasing and Contracting for Health Services: The Case of Zambia

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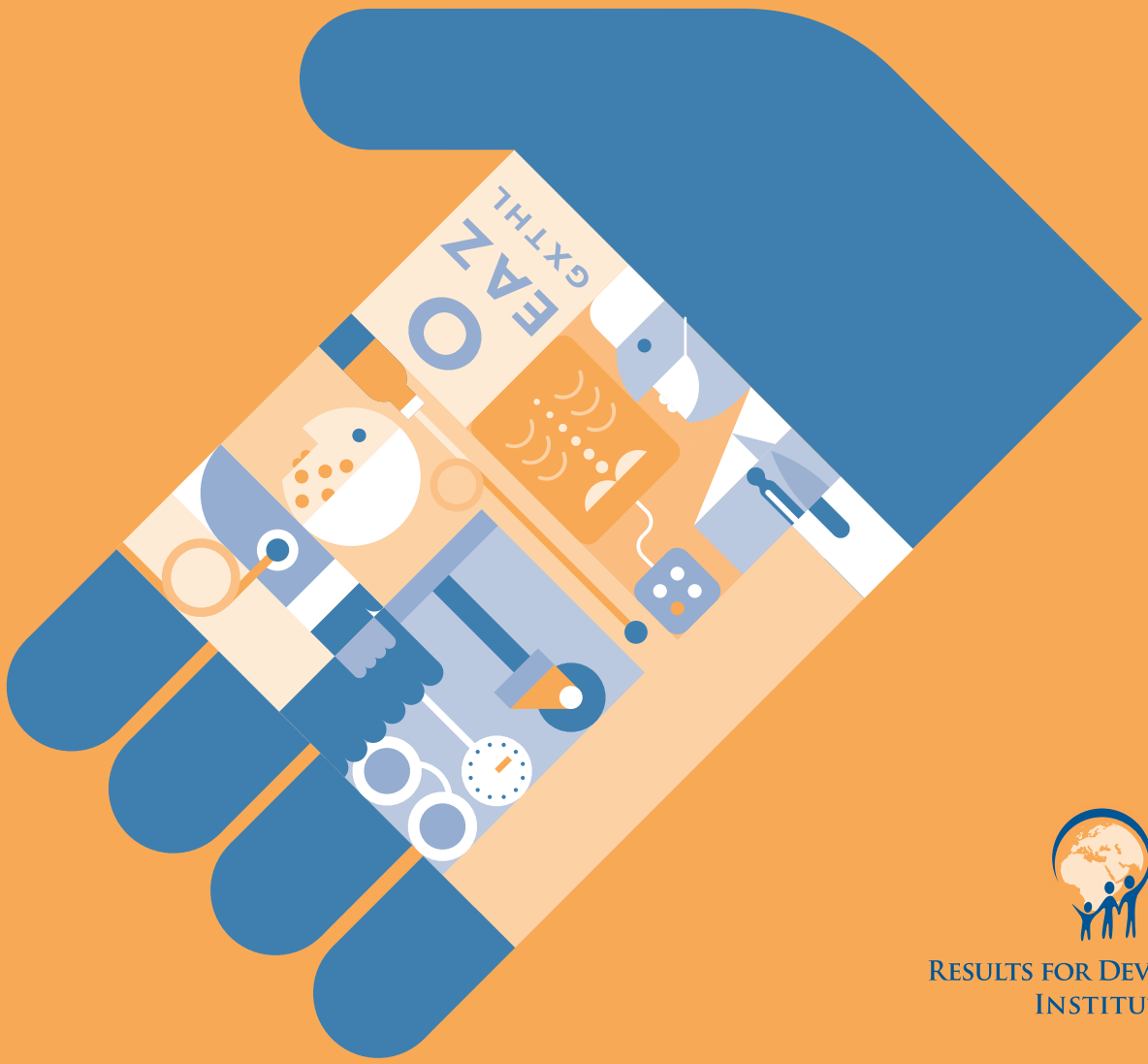

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Executive Summary

Objective and rationale of the study

The objective of this study was to identify and characterize contracting models that have existed in the Zambian health sector and their consequences on access to health care. The study was aimed at assessing the extent to which the identified contracting models have been successful in achieving their intended goals and at determining their potential to be scaled up to the entire health sector, including the private sector.

Methods

The study used both qualitative and quantitative approaches. The data were collected from both primary and secondary sources. A selected number of providers and policymakers were interviewed using a semi-structured questionnaire. Secondary data were collected using a structured questionnaire.

Findings of the study

The study reveals that contracting-in and contracting-out are prevalent in Zambia. Contracting-in is seen where the government is providing health service to the people on a wide scale. Different levels of the referral system within the public health sector contract with each other through the concept known as "purchase of beds." Contracting-out is evidenced by the relationship existing between government and the faith-based organizations and not-for-profit nongovernmental organizations where the latter are providing health services to the people on behalf of the government.

Despite the conducive policy environment for contracting private for-profit health service providers, the study has established that direct contracting-out to the private for-profit health institutions has been very limited. This is evidenced by the fact that there are no contracts or exchange of financial resources between the government and private for-profit health institutions for health services. Moreover, the study observed that contracting-out to the private sector is constrained by limited budgets, attitudes of fund holders toward the private sector, lack of a comprehensive policy for harnessing the private sector, lack of a platform where policymakers in the Ministry of Health and the private sector interact, as well as the reluctance of the private sector to engage in a deeper interaction with the government.

Although contracting-out is limited, partnerships between the private for-profit institutions and the government have thrived in public health programs as well as vertical programs. For example, in some isolated instances, the government does mandate private for-profit health providers to carry out some services falling within public health programs such as the distribution of anti-retrovirals to people living with HIV and AIDS, child immunization, and malaria control programs.

Further, the study shows that with the abolishment of the Central Board of Health, the provider-purchaser split has now been merged into the Ministry of Health structures. Despite these changes, however, the contracting process remains the same, and evidence on the

impact on the quality of services, according to interviews with District Health Management Teams and hospital managers, has remained mixed.

Recommendations

The survey results show that contracting-in and contracting-out to the private not-for-profit providers has significantly grown over the years. Based on these models, the following recommendations could help enhance and scale up contracting with the private sector:

- Increase funding to the fund holders, especially District Health Management Teams, or develop an effective health insurance system
- Give more administrative autonomy to the fund holders
- Undertake an inventory assessment of the competencies of the private sector to inform government policy
- Create a platform to facilitate the interaction of the public and private providers
- Develop a policy framework for private public contracting

1. Introduction

Reforms in the health sector oriented toward the marketization of health care emerged during the late 1980s and early 1990s in low- and medium-income countries as part of an identified need for greater efficiency and effectiveness of health sector performance. There were two key dimensions to the reforms: first, strategies targeting direct or indirect private sector participation through public-private partnerships and, second, a performance-oriented focus of the public sector (Saltaman R. B 1995; Mills A1995). In fragile states, contracting has been introduced by donors to address the lack of appropriate health services in a country or the breakdown of health infrastructure. The choice of contracting is underpinned by the notion that public service agents tend to act inefficiently because they wield bureaucratic control over resources, and this adversely affects efficiency in health care provision. The creation of internal markets within the public and contracting out services in the public and private sectors lead to a weakening of bureaucratic control, while introducing a performance-based framework for service delivery that is also diversified by including public, private for-profit, and private not-for-profit providers (Walsh 1995; Mills, 1998). Moreover, with contracting, government gains authority in its regulatory and oversight roles and private agents evolve from competitors to collaborators. This helps to harness private sector resources and capture some of the advantages of competitive markets or ensure that services are provided to the wider communities.

Despite the rapid growth of the private sector and obvious complementarities with the public sector, most governments and the global health community have not adequately monitored and engaged the private sector to exploit its competitiveness in meeting the health needs of communities. Moreover, very few studies have been undertaken to understand the private sector and the role that it could play in the health system. Meanwhile most patients, including the poor, seek health care from the private sector as the first source of health care (Mills, Brugha et al. 2002).

Generally, governments in developing countries have attempted to harness the private sector by focusing on vertical contracting in addressing areas of public health programs and diseases such as TB and HIV/AIDs. This is in spite of the abundant evidence that shows that the private sector can effectively contribute to improved performance of the entire health sector once embraced as part of the health system (Kistnasamy 2008). Unlike initiatives that address vertical approaches to private sector participation, this study explored models for integrating both public and private health resources to create a comprehensive health system better equipped to achieve improvements in health outcomes based on the Zambian experience.

Socioeconomic profile

Zambian socioeconomic indicators have remained mixed during the period 2002 and 2006. While there have been improvements in some indicators, some have worsened and others have remained static at suboptimal levels (table 1), and this has been of great concern to policymakers. As a result, like other developing countries, Zambia has committed itself to the realization of the Millennium Development Goals on health by 2015.[1] According to the

[1] See www.unmillenniumproject.org/goals/ for a full description of the Millennium Development Goals.

Living Conditions Monitoring Survey for 2006, the percentage of Zambians living on less than US$1 a day at the national level has declined slightly from 68 percent in 2002 to 64 percent in 2006. With this high level of poverty in the country, preventable and treatable diseases have taken an enormous toll on the poor. This has increased pressure on the already constrained health sector.

Table 1: Selected socioeconomic indicators, 2002–2006

Indicator	2002*	2004	2006
Population (millions)	10.8	11.1	11.9
National poverty incidence (%)	67	68	64
Incidence of extreme poverty (%)	46	53	51
Rural poverty (% of rural population)	72	78	80
Urban poor (% of urban population)	28	53	34
Life expectancy at birth	49.5	NA	50
Infant mortality rate (per 1,000 live births)	95	NA	70
Under-five mortality rate (per 1,000 live births)	168	NA	119
Maternal mortality ratio (per 1,000 live births)	729	NA	449
HIV/AIDS prevalence, ages 15–49 (%)	16	16	14.3
Per capita income (US$)	420	490	654

Sources: Central Statistical Office 2005 and 2007, Ministry of Finance and National planning, 2005, NA = not applicable. * The methodology used in 2002 was different from the other years.

Life expectancy at birth remains at 50 years. This has risen from 40.5 years in 1998. The infant mortality rate declined from 110 per 1,000 live births in 2000 to 95 per 1,000 live births and 70 live births in 2002 and 2006, respectively. The under-five mortality rate decreased slightly from 195 to 119 per 1,000 live births over the same period. This relatively high under-five mortality rate is in part attributable to mother-to-child transmission of HIV/AIDS due to the high prevalence of HIV/AIDS. It can also be explained by the decline in child immunization rates. Overall child immunization rates in the country have fluctuated over the years. They dropped from 76 percent in 2002 to 73.5 percent in 2003. They are estimated to be 78 percent in 2004. During the period, immunization against bacille Calmette-Guérin fell from 97 to 94 percent; diphtheria, tetanus, and pertussis, from 86 to 80 percent; polio, from 84 to 80 percent; and measles, from 87 to 80 percent (MoH 2006)

On the other hand, the maternal mortality ratio rose from 649 in 1996 to 729 in 2002 before dropping to 449 in 2006. The maternal mortality ratio is higher in rural areas than in urban areas, mainly because of the poor health care services in rural areas and insufficient numbers of qualified personnel. For instance, only about 27 percent of maternal cases in rural areas are attended to by qualified medical personnel compared with 79 percent in urban areas.

Statement of the research problem

The Zambian health sector has undergone some major changes in the past two decades, mainly as a policy response to economic downturns the country has experienced since the mid-1970s. The major health sector reforms were initiated in the early 1990s as part of the economy-wide reforms. The implementation of health sector reforms was guided by the

principles laid down in the National Health Polices and Strategies of 1992. These emphasized the right of access to affordable health care of good quality to all Zambians. The government's overall vision was to "provide Zambians with equity of access to cost-effective, quality care as close to the family as possible." In line with the global trends, the government adopted the marketization of health care with the identified need for greater efficiency and effectiveness of health sector performance. This was based on strategies targeting private sector participation directly or indirectly through public-private partnerships or through performance-oriented reforms of the public sector (Saltman 1995; Mills 1995). The reforms were driven by declining health care service quality; economic decline and scarcity of resources for health care and other sectors; the desire to restructure the sector and make it more responsive to community, households, and consumer needs; and the desire to achieve more efficient and effective resource use and outcomes.

The public health reforms spanned the entire public health sector from administration to service delivery. Administrative reforms included the decentralization of the health system through the creation of health boards at all levels of the health system. The newly created autonomous District Health Boards managed primary health services, while Hospital Management Boards and the Central Board of Health managed secondary and tertiary hospital levels and the national level, respectively. The creation of these autonomous boards resulted in a broad split between the Ministry of Health as a purchaser of services and the autonomous boards as health service providers. This split formed the basis for the contracting of health services in the public sector. Mills and Broomberg (1998) noted a number of factors influencing contracting for health care, which include the following:

- the changing principles toward public sector management with the growing principles of performance-oriented accountability and results achievement.
- Health outcomes such as life expectancy and infant mortality have been declining as health systems in low-resource settings faced more severe resource constraints for a number of reasons, including poor and deteriorating economic conditions, shrinking public sector resources and allocations to health and other related public health sectors (such as water, sanitation, and education), as well as emerging or reemerging conditions such as HIV/AIDs and TB.
- The desire to maintain equity and effectiveness in resource use and consumption has faced difficult challenges.
- Fourthly, the desire to generate accountability, improve quality, and increase consumer satisfaction were also some of the conditions that led to the consideration, design, and implementation of different ways of reimbursing and funding health care services.

Following the decline in the quality of services and health outcomes as institutional performance became increasingly diminished, the government initiated health reforms in 1992. The weak economic performance affected the private sector probably even more because the investment and regulatory framework for private sector participation had not included appropriate incentives for it to respond to consumer needs and demand. Yet, the growth in private sector participation and its potential had become evident. One way of alleviating the declining performance was to strengthen the public-private partnership.

The choice of contracting is underpinned by the notion that public service agents tend to act inefficiently because they wield bureaucratic control over resources. This adversely affects the efficiency of health care provision (Walsh 1995; Mills 1998). The creation of internal

markets within the public sector, as well as the contracting-out of services in the public and private sectors, leads to a weakening of bureaucratic control, while introducing a performance-based framework for service delivery that is also diversified by including public, private for-profit, and private not-for-profit providers. In addition, contracting-in was introduced to empower districts and communities to develop plans and set priorities based on prevailing health needs in their districts within the agreed-upon budget. It was envisaged that contracts would oblige the health service providers to provide the quality and quantity of services required by the purchaser.

Since the inception of contracting, a number of institutional changes have taken place in the Zambian health sector. However, no comprehensive outcome evaluation or a benefit-incidence study has been undertaken to document, characterize, and analyze the contracting models that exist in the Zambian health sector to gauge their contribution to increased access to health care by the poor. These information gaps are more apparent in light of the fact that none of the initiatives is sector specific.

Objectives

This study seeks to identify and characterize contracting models that have existed in the Zambian health sector and their consequences on access to health. To achieve the objective, the study seeks to accomplish the following:

- Identify the provider purchasing and contracting models that have been and are being used in Zambia
- Identify the main contractors and contractees under each model
- Explore the extent to which each model has attained its objective
- Determine why each model is preferred by the involved parties

Study methodology

To generate verifiable and valid data with sound analysis and logical interpretation, the study employed both qualitative and quantitative data analyses. The qualitative analysis was adopted to obtain information that thoroughly describes the contracting models that are used in Zambia. Quantitative analysis was necessary to assess the resource or financial flows in the contracting arrangements that may exist among different players.

The study was undertaken in two phases. In the first phase, the study focused on qualitative data collection. The thrust of the phase was to identify models that exist in Zambia. The second phase explored the models identified in first phase through quantitative analysis. The phased approach facilitated the validation of the work and allowed for methodology improvements by the research team.

Ethical issues

The study received ethics approval through the biomedical ethics committee of the University of Zambia and thus was undertaken within the required ethical guidelines.

Data collection methods

In the first phase, the study mainly dwelt on qualitative analysis. This approach helped in obtaining desired data because it allowed for triangulation in the collection process. The second phase consisted in collecting quantitative data from various providers. The following types of data were collected:

Primary data collection: Expert and stakeholder interviews were the main source of information about contracting models that exist, especially in the private sector. Interviews provided insights that qualified and refined our understanding and interpretations of contracting arrangements.

Secondary data collection (desk review/analysis): The researchers reviewed relevant reports and secondary literature that could inform the study and evaluation of the contracting arrangements that exist in Zambia. Most of the documents and literature were collected from within the Health Economics Research and Training Unit of the Department of Economics at University of Zambia and the Zambian Ministry of Health, among others.

Sample

The study captured all the segments of health care providers in Zambia. These included managers of private health facilities (hospitals and laboratories), government officials, and managers of insurance companies. In the public sector, information was collected from the Ministry of Health's Head Office, and providers comprising District Health Management Teams, and a few public hospitals from second level referral hospitals and and level three facilities that provide highly specialized medical care and student teaching.

Limitations of the study

In an effort to characterize the contracting models that have existed in Zambia and assess the impact of the reforms on service delivery and related aspects such as financing, quality of care, access, and utilization, a detailed questionnaire was given to selected providers. Although care was taken to collect information that could be required to assess performance under a standard contracting arrangement, most providers did not have the requested information in the required format. Thus, respondents did not answer a number of questions. This limited the extent to which firm generalizations could be made.

Second, the study was conducted in seven districts of Zambia. Although care was taken to ensure that they reflect the national picture (the rural-urban dichotomy), their national representativeness could be debated. Nonetheless, the selected districts together have a mixture of industrial providers, private for-profit providers, mission hospitals, and public health care providers. Thus, they still provide a good snapshot of what could be found in Zambia.

Third, the study benefited from the input of one member of the team who was part of the team of managers that designed and implemented the policy reforms in the Zambian health sector, including contracting. Recognizing this experience, efforts were made to limit his potential influence over the analysis and interpretation. Further, the selection of interviewees in the public sector was based on the position held and not individuals. It was observed that some interviewees had personal rather than professional inclination toward some policy changes because of their past experience. These personal inclinations could have biased some responses in some instances; the team had to triangulate the survey findings with other

sources of information. The team tried as far as possible to give its interpretation and judgment of the information.

In spite of these limitations, the report provides a good picture of what could be found in the country.

2. Literature Review

This section provides the conceptual analysis of some provider purchasing and contracting mechanisms that are available. The contracting and purchasing of health services involve two parties: the purchasers and providers. There are many ways of arranging the provider-purchaser relationships, all of which have an impact on the development of contracting and payment systems (Mwansa et al. 2002). Generally, the conditions for contracting health services can be analyzed within the context of the principal agent theory. The principal agent relationship exists when one party, the principal, engages another party, the agent, to perform some tasks on its behalf. In the health care system, the financing source or financing agent is described as the principal, while the service provider is the agent. Before any payment system is developed in a contracting arrangement, the roles of principal and agent have to be decided upon, and the principal and agent must jointly develop an appropriate contracting model that fits the choice. For publicly funded and provided health care, the traditional arrangement tends to integrate the two functions within a unit (Mwansa et al. 2002).

Dissatisfaction with this traditional method has led some countries, such Britain and Sweden, to reform their health care provision arrangements by separating the roles of purchasing and provisioning of health services. This kind of change widens the number of options that are available for contracting and payment mechanisms. Mwansa and colleagues (2002) note that purchasers can be organized in many ways. These include the scenario in which individuals are allowed to choose their purchasers or agent, or with a monopolistic purchaser that is tasked to provide health care for all inhabitants of the defined geographical coverage.

The British National Health Service, in which the general practitioner is a fund holder, is a good example of this model. Individuals are entitled to choose a purchaser or agent. The chosen general practitioner is paid a fixed fee for every listed individual. The fund-holding general practitioners provide the primary health care and are responsible for purchasing prescriptions medication and hospital service once needed. This model creates competition among purchasers within the catchment area to enlist inhabitants. However, this is not the case in a model where the purchaser has a monopoly in taking care of the inhabitants within a geographical area. An example of this model is the district purchaser, which characterizes most of the county councils in Sweden. The district has a monopoly position and acts as a rationing and priority-setting agent for the whole community.

The decision to choose a type of purchasing arrangement within the public health sector depends on country-specific preferences and traditions. The types that are widespread include, first, integration on the purchaser's side to avoid the high administrative costs associated with many small purchasers and a large volume of contracts as in the reformed National Health Service, and the Swedish and American systems, where county councils, health maintenance organizations, social insurance boards, and the like are merging; and, second, the trend that relies on primary care as the first entry, and finally the general trend

where funders of care tend to abandon their passive role and aggressively negotiate for cost-effective care (Mwansa et al. 2002). Moreover, the choice of the purchasing arrangement is critical for the available alternatives regarding contracting and payment mechanisms. Providers may have to compete for contracts, though the type of competition may differ depending on the contracting model.

According to Mwansa and colleagues (2002), two competition models with entirely different effects on costs, efficiency, and consumer choice can be identified. These are, first, the models in which providers compete within the market. The example provided is the traditional American system in which hospitals compete for patients within an open fee-for-service payment from insurance companies. The quality of service, determined by the doctor's and patient's perceptions, is the key competitive factor resulting in an increase in expenditures. Moreover, surveys indicate that expenditures in areas with many providers, that is, a more competitive area, are higher compared with areas with few providers and less competition. In the second model, constable purchasing is employed. Providers compete for a market that mostly characterizes contracting-out. Providers bid for the service and the most attractive service package is given a temporary monopoly on that service for the contract period. In this model, research findings show that purchasers can save on expense, although consumer choice is constrained compared with the first model.

The level of competition in the health system affects the conditions for pricing the service. In a competitive market, in which payment is made by a third party or a provider is a monopoly, payment to the providers will have to be set according to some administrative rules that could include taking the average cost for different services as the administrative price or using actual costs from efficient providers. The use of actual costs could place pressure on inefficient providers to improve their service delivery. If competition for the market is used, providers bid to supply the service. The purchaser's role is to choose a supplier that optimizes his resource use by selecting the best offer from the cost-benefit perspective (Mwansa et al. 2002. If alternative health services providers are not available, competition in smaller cities may be limited or may not even exist. In such cases, the criteria of performance-based payment and incentives for efficiency could be satisfied to a comparatively high degree by a system of administered prices (Zweifel and Breyer, 1997). In case of Zambia, contracting-in requires payments set through administrative rules.

In the Zambian health sector, the Ministry of Health's budget is under the Ministry of Finance and National Planning. The contracting of health services is negotiated and administered by the Ministry of Health thus acting as the principal. The providers, such as tertiary and district hospitals, act as agents that allocate the resources to functions in the health care delivery chain. Controversies in principal-agent relationships pertain mainly to the different objectives that each party may have. Agents usually want to maximize their own utility instead of acting in the interest of the principal. To limit discretionary behavior across agents, the principal will try to enforce its interest by using different control mechanisms, depending on the type of relationship. If the principal and the agent are different legal entities, the main control mechanism for the principal will be a legal contract. If the principal and agent are part of the same overall organization, which will be the case within a public health care system, the principal will have the opportunity to control agents more directly.

Irrespective of these differences in terms of organization, the enforcement of contracts (legal or internal) is not without costs. In part, these "agency costs" (Jensen and Meckling 1976) are visible and have to do with the administrative cost of initiation, implementation, and

monitoring of contracts between principals and agents. Another, less visible, but equally important, part of agency cost is the residual loss that emerges if the behavior of agents does not maximize the welfare of principals. A key concern for principals (and the principal-agent literature) is how to minimize the cost of contracting and enforcement of contracts on the one hand, and the residual loss from imperfect contracts with agents on the other hand. In this context, the payment system may be seen as a central part of contracts with agents (Masiye et al. 2006).

Although the principal-agent problem is central to the analysis of contracting, this study takes a simple descriptive approach to getting clear, up-to-date information from the public domain about contracting in both the private and public health system.

3. Evolution of the Zambian Health System

Zambia has a mixed type of health care system consisting of both private and public facilities. The private sector includes not-for-profit hospitals that are mainly managed by faith-based organizations under the coordination of the Churches Health Association of Zambia (CHAZ), the private for-profit hospitals and clinics, private pharmacies and drug stores, and traditional health practitioners. Before the 1990s, the health care system was highly centralized with the government providing most of the services for free. It was followed by the faith-based organizations, while the private for-profit actors were discouraged. The Ministry of Health Headquarters center managed the public health system and made all key decisions relating to use of resources, human resources management, services mix, and investments in the sector. The provincial offices provided direction to the districts, while the districts managed the lower level units such as district hospitals and health centers. The dominance of the public sector has continued to date with the government delivering about 70 percent of the health services in the country.

Nongovernmental organizations, especially the not-for-profit mission facilities, are also prominent providers of care in many parts of the country. About 35 percent of the hospitals and 4 percent of health centers and posts belong to missions. They are privately owned and managed by respective denominations under the umbrella of the CHAZ. The government and the mission institutions have cooperated in planning and implementing health services over many years. Until 1991, the private for-profit practice was discouraged and was limited to a few selected state-owned enterprises. In an international comparison, Hanson and Berman (1998) found that the proportion of Zambia's private for-profit sector was small compared with other countries in the region. The estimated number of private physicians as a percentage of the total number of physicians in the country stood at 46 percent on average in Africa, while the figure for Zambia was a mere 13 percent.

In addition, industrial facilities administered by the Zambia Consolidated Copper Mines played a significant role. However, during the privatization of the mines from 1997 to 2000, only a few of the health facilities were maintained by the new owners. As in many other countries in sub-Saharan Africa, the public health care system in Zambia has been under severe stress in recent decades.

Health reforms in Zambia, 1964–2005

Following independence in 1964, the health sector in Zambia was managed centrally through the Ministry of Health Headquarters. Health care financing and resource allocation were supported through the annual plans within the ministry's headquarters. District Health Management and Hospital Management Teams had no financial autonomy. They prepared district and hospital plans that were then centrally funded. At most, they could hold "imprest" or advances of cash, which were retired through the usual financial accounting procedures of expenditures supported by appropriate documentation. Accountability was undertaken principally through the provincial accounting structures, which, in general, were also responsible for government sectors in addition to health.

Health care personnel were employed and deployed through the Public Service Commission and on the payroll of the Ministry of Finance. The Central Statistical Office managed monitoring and evaluation, and it seconded officers to the Ministry of Health to assist in managing the monitoring and evaluation component. Essentially, there were virtually little or no known contracting efforts in existence in the public or private sectors. Moreover, district and hospital managers did not have authority to plan and manage financial or human resources. They could not plan or set priorities based on prevailing health needs in their districts. Consequently, plans developed centrally did not reflect or address the health needs of the respective districts.

Among the institutional reforms of the mid-1990s was the separation of political and executive functions of the Ministry of Health. The national government policy emphasized the role of ministries in policy development, resource mobilization, and monitoring of performance. The implementation role was delegated to semi-autonomous institutions. The thrust of the reform agenda was to establish a clear separation between the purchaser and the provider. In the health sector, the government passed the implementation role to the Central Board of Health, a body originally established under the 1930 Public Health Act and recognized again in the 1995 National Health Services Act. Until 2006, the Ministry of Health was responsible for policy formulation, strategic planning, and overall coordination, legislation, budgeting and resource mobilization, and external relations. Decentralization of the health services entailed the unbundling of the public sector to create internal markets, which allowed contracting at various levels of health (Lake et al. 2000).

Thus, two parallel, but complementary, organizational structures were introduced, namely, popular structures for public involvement and participation in the decision-making process, and the technical and management structures, designed to ensure that health services were implemented and managed in a manner that was technically sound and in keeping with best practices. Apart from the Central Board of Health at national level, Hospital Management Boards, District Health Boards, and the Neighborhood Health Committees and Health Centre Committees, at the community level, were also created. On the other hand, the technical structures established included the management teams at the Ministry of Health and the Central Board of Health at the national level; Hospital Management Teams at the hospital level; and District Health Management Teams at the district level.

Generally, the performance of the Zambian health sector has been tied to economy-wide developments since the early 1980s. During the late 1970s, economic growth in Zambia stagnated at an average of 1 percent per annum and started to deteriorate in the late 1980s to the early 1990s until 2000. The weak performance of the centrally planned economy resulted in a move toward plural politics and market-oriented economic policies.

As the economy progressively worsened, so did public sector financing and the social sector. Health and education bore the brunt of the rapid and dramatic economic performance. Resource allocation to the health sector dropped from US$26 per capita in the 1970s to US$6 per capita in the 1990s (Nakamba et al. 2002). This was exacerbated by the emergence of HIV/AIDS almost at the same time (1983–1985) and the resurgence of other infectious diseases during the latter part of the 1980s, namely, tuberculosis and malaria, which further aggravated health status as much as the decline in the health service delivery system continued. During this period, the health system encountered a number of challenges that included the following:

- Deterioration of morbidity and mortality indicators due to the poor quality of health services
- A loss of motivation in the workforce (strikes and brain drain)
- Centralized planning and decision making
- Planning for health and, consequently, service delivery that was not linked to the needs of the community
- Poor accountability, transparency, and partnerships
- Multiple vertical programs and a lack of donor coordination
- Reduced funding and inequity in the distribution of resources

The increasing scarcity of public health care resources undermined trust in the state as the provider of health care. Moreover, the bureaucratic nature of the public sector made it inefficient and unresponsive to patients' demands. These socioeconomic and political developments gave the impetus for the reform of the health sector. With the support of bilateral and multilateral donors, the government initiated the ongoing reforms within the context of overall economic reforms initiated in the early 1990s. The implementation of health sector reforms was guided by the principles laid down in the National Health Policies and Strategies of 1992, which emphasize the right of access to affordable health care of good quality to all Zambians. The thrust of the reforms was to induce

> …better management and improvements in quality of service…avoid autocratic approach and for these reasons extensive powers for operational management were to be delegated to the new autonomous District Health Boards and Boards of Management in Hospitals. This would provide opportunities to eliminate waste, achieve better value for money and above all improvements in quality and quantity of services. We wish to see more initiative, enterprise and much greater flexibility….One impact of this change is to reduce the size of the Ministry of Health whose role will be revised…. (MoH 1991)

Thus, the sector underwent major changes, from administration to service delivery. The major tenets of the health reforms were the following:

- Decentralization of the responsibility for essential service operations to the district, secondary and tertiary hospital levels
- Redirecting of funding from centrally managed projects toward funding for activities defined by communities and districts

- Budgetary reform whereby District Health Management Boards received allocation from the central authorities to enable them to plan and manage their affairs more effectively
- Introduction of user fees to enhance the resource base of District Health Management Boards
- Introduction of basket funding whereby cooperating partners' funds would be put in one basket and used in accordance with the government's priorities
- Emphasis on primary health care with a focus on prevention and promotion of strategies for health care service delivery

The objectives of these reforms were to address the inequalities, inefficiencies, and ineffectiveness of the health care sector to make it more responsive to community, household, and consumer needs. Thus, community health structures, such as neighborhood health committees, were established at health centers. These were to be essential players in planning, priority setting, and decision making at the lowest point of health care services.

Reforms were structural, institutional, and systemic in nature. Decentralization was seen as the vehicle through which constraints to access could be addressed. It was based on a delegated model of power decentralization. This was attained through the formation of health boards. Health boards were created at all levels of the health system, leading to the formation of District Health Boards at the primary health service level and Hospital Management Boards at the secondary and tertiary levels.

The 1995 National Health Service Act initiated significant changes in the role and structure of the Ministry of Health and called for the establishment of an essentially autonomous health service delivery system. The Directorate of Medical Services in the Ministry of Health was replaced by the semi-autonomous Central Board of Health, which was to "monitor, integrate, and coordinate the programs of the Health Management Boards, set financial objectives and the framework for management boards and to provide technical consultancy to management boards and assist non-Government health providers in their delivery of health services".

Meanwhile, the "new" Ministry of Health was to be primarily a policymaking and regulatory institution, and its directorates were reduced to three: Human Resources and Administration, Planning and Development, and Health Policy. It remained responsible for policy formulation, strategic planning, coordination, legislation, budgeting and resource mobilization, and external relations. At the same time, a broad purchaser-provider split between the Ministry of Health as purchaser of services and the autonomous boards as health service providers was created. The Ministry of Health funded the Central Board of Health, while individual district and hospital boards signed annual service contracts with the Central Board of Health in which they undertook to provide a range of specified services to a given population in return for monthly grants from the government and cooperating partners (MoH 1998b).

Table 2: Roles and responsibilities of the MoH and CBoH after the 1995 NHS Act reforms

Key Function or Responsibility	**Responsible Institution**		**Rationale (comment)**
	CBoH	MoH	
Human resource	Operational	Planning for	CBoH maintained the

management and planning	aspects addressing placement, distribution, payments (payroll management)	HRH	operational roles, and MoH maintained the policy aspects. Decision space was therefore given to the boards on operational aspects of HRH. However, the "de-linkage" issue or separation of HRH from the public sector to employment within the boards was delayed and never addressed due to funding constraints. This was identified as a "failure" or a major weakness as "dual" employment of the seconded staff from the public sector was deemed to create difficulties of accountability and control.
Decentralization of health system	Management of the DHBs, HMBs, and others	Management of the CBoH	Basis for purchaser-provider framework and in line with the later National Policy on Decentralization (2003), which seeks to devolve powers to the local government structures with responsibility for health among other areas at the local government level
Legislation	Operational aspects	Formulation and legislative responsibilities	Key aspects of policy assigned to the Permanent Secretary and the Ministers
Policy development			
Procurement of drugs, medical supplies, equipment	Overall responsibility shifted to CBoH		
Financing • Resource mobilization • Funding			
		MoH	Resource mobilization externally and domestically
	Monitoring, evaluation, and reporting of financial		

	statements and operational issues in health care financing		
Policy formulation	Operational	Overall Mandate	
Systems development, performance audit, quality assurance, monitoring, and evaluation	CBoH	MoH over CBoH	CBoH routinely executed monitoring and evaluation and commenced on functions of accreditation and quality assurance. There were no such assessments and decision-making mechanisms adopted or used by the MoH.
Commissioning	CBoH as agent Negotiated contracts and commissioned services	MoH as principal	CBoH assumed responsibility for contracting, fund-holding, and payments, including the final act of disbursement of funds based on contract agreements, to the DHBs, second and third HMBs as well as the other statutory boards.

CBoH = Central Board of Health; DHBs = District Health Boards; HMBs = Hospital Management Boards; HRH = human resources for health; MoH = Ministry of Health.

In 2004, the public sector health service delivery system was organized into the following levels:

- *Central Board of Health*, operating as the national coordinator of health service delivery
- *District Health Boards*, charged with the supervision of the District Health Management Teams. These managed first-level or district hospitals and a network of health centers. Below the health centers are health posts (which may not have permanent structures), each with a single professional staff member. Health centers have Facility Committees and Neighborhood Committees to encourage community participation.
- *Hospital Management Boards*, the second-level referral hospitals and third-level or tertiary hospitals. These were envisaged to operate as autonomous entities. Although the 1985 medical services provided for the establishment of an independent hospital board at the University Teaching Hospital, the 1995 act extended it to other hospitals.

The new organization of the health sector formed the basis for decentralization. Decentralization within the context of health reforms in Zambia has been characterized by delegation of functions, planning, budgeting, management of health services, financial management, resource mobilization, and allocation and control of human resources

(including the hiring and firing of personnel), from the Ministry of Health to autonomous Hospital Management Boards and the District Health Boards.

The major reforms started in 1992 when the government enacted the National Policies and Strategies, which paved way for the establishment of the health reforms implementation team. Since then, a number of reforms and legislation have been introduced, as indicated in table 3.

Table 3: Evolution of health reforms and legislation

Year	Key Events/Reforms
1992	▪ Health Policy Framework paper is formulated (by the new government). ▪ Cabinet approves the 1991 Health Policies and Strategies (Health Sector Reform) paper. ▪ Autonomous hospital boards are established based on the 1985 Medical Services Act.
1993	▪ Public Service Reform Program is launched. ▪ National Decentralization Policy is approved by the government. ▪ Health Reform Implementation Team is established. ▪ District Health Boards are created under the National Health Services Act. ▪ The government pilots funding to districts by providing grants to three districts (Mansa, Monze, and Senanga). ▪ District basket funding becomes operational with the government and Danida; later expanded to seven partners (Danida, DFID [then ODA], European Union, the Zambian government, Sida, UNICEF, and the World Bank).
1994	▪ National Health Strategic Plan 1995–1998 is developed. ▪ Financial and Administrative Management System is introduced. ▪ Health Management Information System is introduced.
1995–1996	▪ Basic Health Care Package is defined. ▪ National Health Services Act legitimizes District Health Boards. ▪ CBoH is established with four Regional Offices replacing the nine Provincial Offices. ▪ Cooperating partners' funding is shifted to CBoH.
1995–2000	▪ Fragile period for the sector reform program and the SWAp partnership.
1997	▪ National Health Strategic Plan 1998–2000 is developed. ▪ Medical Stores Ltd. is put under an external management contract.
1998	▪ The National Malaria Control Centre is reestablished. ▪ Cabinet approves National Drugs Policy and National Laboratory Policy.
1999	▪ Cabinet approves Reproductive Health Policy. ▪ Regional Health Offices are scrapped and the nine Provincial Health Offices reinstated. ▪ CBoH is restructured. ▪ The first SWAp memorandum of understanding is signed by the government of Zambia and 13 cooperating partners (November 24).
2000	▪ Joint Identification and Formulation Mission takes place.

Year	Key Events/Reforms
	▪ National Health Strategic Plan 2001–2005 is formulated.
2003	▪ Basket is expanded to include secondary and tertiary hospitals, CBoH and MoH headquarters. ▪ SWAp Code of Conduct is drafted.
2004	▪ Institutional and Organizational Appraisal of the Health Sector conducted. ▪ Health SWAp coordination mechanism is reorganized. ▪ Basket is further expanded to include statutory bodies, training institutions, and laboratories.
2005	▪ Health Services Act is repealed, thereby abolishing CBoH, Provincial, Hospital, and District Health Boards. ▪ The government indicates its preference for General Budget Support. ▪ The European Union moves to General Budget Support. ▪ Danida and Irish Aid migrate away from health. ▪ Memorandum of understanding between MoH and cooperating partners is revised.
2006	▪ Zambia's president announces the abolition of user fees in all rural public health care delivery facilities (January). New user fee policy enters into effect (April). ▪ Fourth National Health Strategic Plan (2006–2010) is launched. ▪ MoH is restructured. ▪ Drug Budget Line is established. ▪ First Joint Annual Review and report is issued. ▪ CBoH is formally dissolved and merged with MoH (March). ▪ Memorandum of Understanding for Wider Harmonization in Practice is signed by the government Zambia and cooperating partners.
2007	▪ Government initiates the Traditional Healers Bill.

CBoH = Central Board of Health; MoH = Ministry of Health; SWAp = sector-wide approach.

The process was well embraced by donors, technocrats, and the government. It took stock of the economic situation and the technical status of the health sector. In addition to creating boards, the act provided for all civil servants in the health sector, approximately 17,000 health service workers, to change employers from the Public Service Commission to the health boards. It also provided for some investments as well as planning and budgeting.

The devolution of powers led to improvements in resource use, stocking of essential drugs, and improved staff morale and performance of the health sector. According to the Ministry of Health, the reforms resulted in a number of successes through a pro-poor approach:

- Decentralized leadership and improved management at all levels, including governance (popular structures)
- Strengthened partnerships with all stakeholders
- Capacity building in planning, monitoring and evaluation, financial management, systems development
- Re-tender of Medical Stores Ltd. completed in a transparent manner and establishment of the Drug Supply Fund
- Improvements in the control of epidemics
- Improvements in some health indicators

- Sector-wide approach (SWAp) coordination and increased and predictable funding to the sector
- Improvement in accountability and transparency (Financial and Administrative Management System, Health Management Information System)
- Improvements in infrastructure and logistics (information technology, transportation, and radio communications)
- Improved availability of drugs and medical supplies, and improved management, particularly at the district level

Health care financing reforms

Before the adoption of the reforms in 1991, health care programs were funded predominantly through the government's budget with very limited direct donor participation. In adopting the reforms, the government introduced the following:

Fiscal decentralization or the devolution of spending authority to the local level: One of the key reforms involved the decentralization and the institutionalization of direct channeling of funds to the districts as fund holders. Prior to the reforms, budgetary allocations for health services were appropriated under separate votes to the Ministry of Health's headquarters, four national health institutions, and each Provincial Medical Office. District officials had to supply vouchers for any expenditure to the Provincial Medical Officer who was their spending officer. Under the new system, money for the districts is appropriated by an act of Parliament and channeled directly to them. This shields the districts from delays in the flow of funds from the provinces and gives the districts greater freedom in the preparation of their budgets and in accounting for expenditures.

Basket funding: Prior to the reforms, most of the donors channeled their resources through vertical programs. The government and the donors entered into a partnership that resulted in many successful innovations not seen or tried in other countries. Basket funding is by far the most novel aspect of health care financing reform in Zambia and one from which many other countries have learned. The pooling of resources through the basket improved the coordination, accountability, and effectiveness of health care financing. The government and donors adopted the sector-wide approach (SWAp) to health care financing in the 1990s. A significant number of cooperating partners decided to channel funds to the district basket fund. The first memorandum of understanding between the government and cooperating partners in support of the National Health Strategic Plan 2001–2005 was signed in 1999. The second memorandum of understanding was signed in 2005 in support of the National Health Strategic Plan 2006–2010. This coordination effort reflects a desire on the part of the Ministry of Health to minimize possible duplication of services and avoid contradictory and inequitable policies and activities.

Under the basket funding approach, donors fund the reform process centrally through the Ministry of Health and do not directly support particular districts or projects. Basket funding thus gives the ministry far more flexibility in fund allocation than the usual project-based funding and leads to a more efficient use of donor financing. Government and donor funds are channeled directly to districts from the Ministry of Health, whereas, under the old system, funds went from the Ministry of Finance through the provincial Accounting Unit under the Provincial Medical Officers' office and then eventually to the districts. Moreover, by focusing on capacity building, health policy reform, and operationally relevant research, the

Ministry of Health is in a stronger position to negotiate the required donor support for national priorities.

User fees: Fees were initially introduced at all facilities partly as a mechanism to share costs but mostly to promote health-seeking behavior and cultivate a sense of ownership and participation in health care provision among the communities. A stated objective of health sector reform is to guarantee that no individual is denied access to health care on account of his or her ability to pay. As a result of the low fees and the long list of exemptions at the health centers, health care is basically free or highly subsidized for most Zambians. Since 2005, health care in rural areas is free of charge.

Prepayment schemes: Prepayment was identified as preferred mode of cost sharing in health centers in both the urban and rural areas. These schemes are a type of social financing arrangement whereby people spread the costs and risks of medical care by pooling their resources through prepayments to a facility and are thereby entitled to access health care without additional costs.

Other cost-sharing mechanisms: Other options that were introduced include a distinction between services provided in the "high-cost" and "low-cost" departments of the public hospitals. Hospitals are allowed to generate additional revenue from the sale of private inpatient and outpatient services provided in designated high-cost wards. These services are characterized by a higher quality of care and hotel services substituting the need for private health care providers. Other options were considered, including privatization of some government hospitals and increasing private sector delivery of primary health care through franchising.[2] It was envisaged that delivering care through private providers to people who have the ability to pay could decongest the public sector and free resources for those in greatest need. Furthermore, the Ministry of Health has allowed physicians to engage in private practice in the hospitals.

Budgetary reforms: As noted earlier, the planning and budgeting process was delegated to the district and hospital levels. Health centers and neighborhood committees were involved in planning, budgeting, and implementing the District Action Plans.

Limitations of the 1992–2005 reforms

The successes achieved under these reforms were short lived. Doubts arose as to whether the reforms could achieve the results envisioned, thus opening the door to debate about the ability of the reforms to foster coverage, quality, cost effectiveness, efficiency, equity, and easy access in basic health care provision. As a result, policy reversals have been implemented, including the removal of user fees in rural areas and the dissolution of the boards.

The initiation of the reforms was not without challenges. First, although the act provided for the boards to hire personnel, the unions and staff associations opposed the separation of staff unless the compensation and pension schemes and entitlements, among other issues, were guaranteed. Boards were formed without the staff being separated from the Public Service Commission. Delays in de-linking staff from the Ministry of Health limited the ability of

[2] Franchising has never been implemented in Zambia mainly because of the financial and human resource constraints facing the public health sector.

hospital managers to make the necessary staff changes within hospitals. Although the concerns of the unions were resolved, the separation did not go forward because the government could not mobilize resources for payment of compensation. When boards recruited new staff under new terms of service, conflicts arose among public service commission employees and board employees because the two earned different salaries despite working under similar conditions. Furthermore, it was feared that de-linkage of staff from the Ministry of Health would lead to shortages of personnel in rural and remote areas. The central level retained discretionary powers to negotiate over job location, which is an important way of keeping rural facilities staffed.

A second challenge was inadequate financing. The creation of health boards meant high restructuring costs. Additional funding was needed to establish the boards, provide additional health facilities at the community level, and expand human resources for health. It was anticipated that the restructuring costs would be met by the government and donors. However, these restructuring costs were not adequately met.

Dissolution of the Central Board of Health

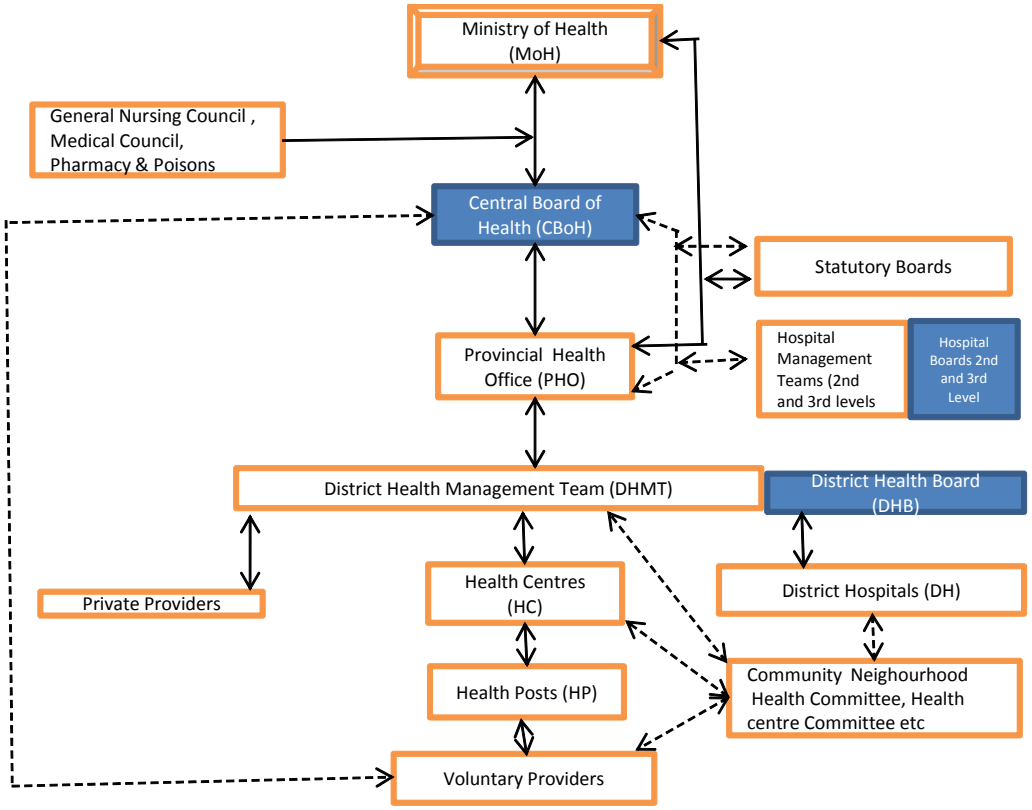
Institutional and Capacity Appraisal (MoH 2004), the most detailed consultancy report on the structural, administrative, and operational impediments facing the health sector, identified the following issues as being responsible for the lack of cohesion in the health sector and as contributing, ultimately, to the decision to dissolve the Central Board of Health:

- *High operational costs of the Central Board of Health in relation to the other health boards*. Expenditures at the center were found to be high, contrary to the Public Sector Reform Programme, which advocates for a lean and cost-effective center. In 2002, for instance, the Central Board of Health spent one-quarter of the total cooperating partner inflows at the center, compared with what was spent in the 72 districts. It was therefore envisaged that the absorption of the Central Board of Health and the restructuring of the Ministry of Health would reduce expenditure at the center and reallocate savings to the district and hospital boards for improved service delivery.
- *Lopsided incentive structure in the health sector*, which worked only to the advantage of the Central Board of Health, whose staff was the best remunerated in the public health sector, unlike the service delivery staff
- *Structures inconsistent with the rest of the public sector* following the passage of the National Health Services Act of 1995, as well as a failure to obtain the approval of the Cabinet (the central public sector secretariat responsible for all public sector policy guidelines and control of the civil service). The structure of the Central Board of Health mirrored that of the Ministry of Health, resulting in duplication of duties as the board assumed some of the responsibilities of the ministry, such as mobilization of resources.
- *Failure of the de-linkage policy due to a lack of funds,* estimated at 400 billion Zambian kwachas ($100 million), for the separation of civil service staff from the civil service to the health boards without loss of their pension contributions and payment of other benefits that they may have been entitled to

Following the dissolution of the Central Board of Health, and District and Hospital Boards, the Ministry of Health assumed the responsibilities of the board, including the role of purchaser, while hospital and district health management took up the role of providers.

Unlike the pre-reform structure, the planning, budgeting, and holding of funds have been retained by the hospital and district health management teams. Figure 1 shows the current structure of the health system in Zambia.

Figure 1: Structure of the Zambian health system since the 2005 reforms



Note: Blue shading indicates institutions that were dissolved in 2005.

Potential impact of dissolving the Central Board of Health

The institutional and organizational appraisal report of 2004 correctly predicted the negative implications of dissolving the Central Board of Health. The report noted that "the immediate dissolving or abolishing the Central Board of Health will have severe negative implications on the whole of health service delivery and is not worth the gains that would be mainly the reduction of high salaries of one institution in the system." Some of these negative implications include the following:

- Loss of qualified and experienced staff because of unattractive government salaries and conditions. In addition, some of the technocrats resisted the dissolution of boards fearing that they would not be reabsorbed into the new structures of the ministry or indeed the civil service.
- Loss of donor support and contribution to the common basket. For instance, some of the cooperating partners such as Danida and Irish Aid migrated away from the health sector.

- Significant loss in efficiency of management of resources
- Increased delays in decision making as systems were reinvented

Although detailed analysis showed that the losses would outweigh the benefits, the government dissolved the Central Board of Health, giving power to the Ministry of Health to take the roles previously performed by the board.

Since the dissolution of the Central Board of Health in August 2005, the Ministry of Health has been in a transitional stage and has taken over the roles and functions that were previously mandated to board. These are summarized below in table 4.

Table 4: Traditional and recent functions taken over by the MoH

Traditional MoH Functions	Former CBoH Functions Assumed by MoH
Policy formulation	Commissioning of health services
Legislation	Development of support systems
Resource mobilization	Interpretation of legislation and policy
Finance and budgeting	Monitoring and evaluation
External relations	Public health promotion
Monitoring and evaluation of CBoH	
Bilateral and multisectoral collaboration	

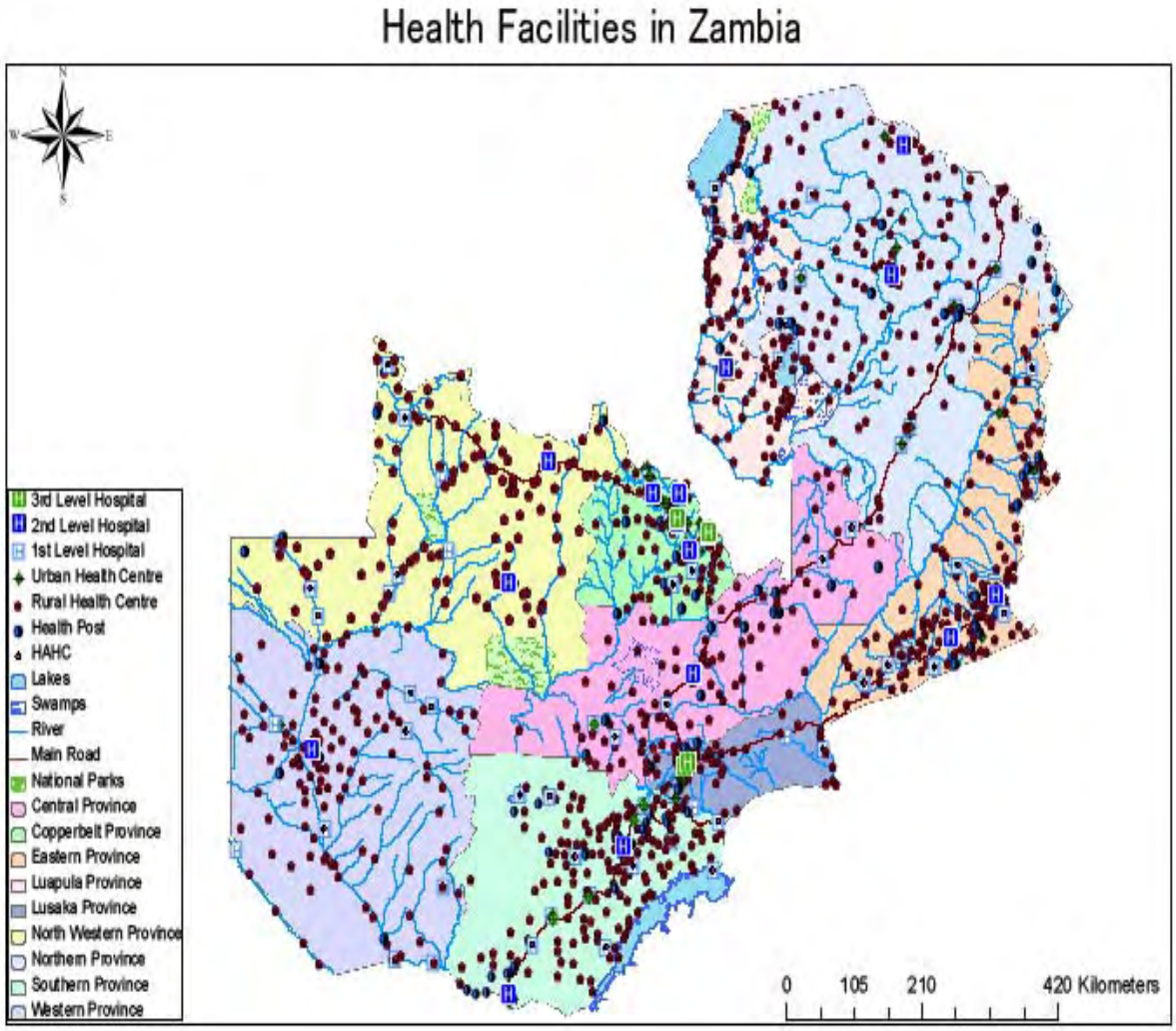
MoH = Ministry of Health; CBoH = Central Board of Health.

4. Structure of the Zambian Health System

The structure, spatial distribution and ownership of health facilities largely determines the nature, design and extent to which contracting of health services in a country could be implemented. The structure of a country's health system influences the contracting mechanisms that it adopts. Zambia's system is organized around a referral flow system that has the same structure as the overall administrative system in the country, delivering health services through several health posts, health centers, and at least one district hospital in each of Zambia's 72 districts[3] at the first level (or district/primary) of referral, one second- level (or provincial/secondary) hospital (commonly referred to as a general hospital) in each of the nine provinces, and two central hospitals in the whole country that function as third-level (or tertiary) hospitals. Figure 2 shows the geographical distribution of health facilities in Zambia.

[3] In practice, some districts have more than one District Health Board, while others do not have any designated board. This is a historical artifact of the evolution of health facility establishment in Zambia. The Central Board of Health (2002) provides the full details of the distribution of District Health Boards by district.

Figure 2: Distribution of health facilities in Zambia



The Hospital Management Boards are responsible for managing the second- and third-level hospitals within the referral flow system, while the District Health Boards and District Health Management Teams are responsible for managing the first-level facilities in delivering primary (preventive and curative) interventions. The first level is where the bulk of health service delivery takes place in Zambia. The facilities are categorized as follows:

Health posts are intended to cater to populations of 500 households (3,500 people) in rural areas and 1,000 households (7,000 people) in the urban areas, or to be established within a five-kilometer radius in sparsely populated areas.

Health centers include Urban Health Centers, which are intended to serve a population of 30,000 to 50,000 people, and Rural Health Centers, serving a catchment area within a 29-kilometer radius or population of 10,000.

First-level referral hospitals are found in most of the 72 districts of Zambia and are intended to serve a population of between 80,000 and 200,000 with medical, surgical, obstetric, and diagnostic services, including all clinical services to support health center referrals. The country had 74 first-level referral hospitals in 2007.

General hospitals are second-level hospitals at the provincial level and are intended to cater to a catchment area of 200,000 to 800,000 people, with services in internal medicine, general surgery, pediatrics, obstetrics and gynecology, dental, psychiatry, and intensive care. These hospitals are also intended to act as referral centers for the first-level institutions, including the provision of technical backup and training functions. In 2007, there were 19 second-level hospitals concentrated along the railway in the Southern and Copperbelt Provinces, which have 5 and 3 second-level hospitals, respectively. There is a need to rationalize the distribution of these facilities through right-sizing.

Central hospitals are for catchment populations of 800,000 and above, and have sub-specializations in internal medicine, surgery, pediatrics, obstetrics, gynecology, intensive care, psychiatry, training, and research. These hospitals also act as referral centers for second-level hospitals. There are five such facilities in Zambia, three of which are in the Copperbelt Province. There is need to rationalize the distribution of these facilities.

The design of the layers of the system forms the basis of the referral system that provides for contracting-in and -out at various levels of the health care system. The services provided at each level of care are defined by the Basic Health Care Package.

Composition and distribution of health care facilities

According to a study by the Ministry of Health (MoH 2008), government and private not-for-profit institutions provide the largest proportion of health services in Zambia. The private sector is relatively small, although it has grown significantly since the beginning of the reforms in 1992 (see table 5).

Table 5: Summary of health institutions by type, size, and ownership, 2002

Facility Type		Number of Units	Total Number of		Number of Facilities Owned by			Percentage of Units
			Beds	Cots	Government	Private	Mission	
Third level		5	3,802	452	5	-	-	0.34
Second level		18	5,133	988	12	-	6	1.2
First level		74	6,795	1,166	36	17	21	5
Health centers	Rural	973	8,077	570	889	23	81	66
	Urban	237	1,632	325	163	74	-	16
Health posts		176	198	11	161	4	11	12
Total		1,478	25,637	3,512	1,266	118	119	10,944

Source: CBoH Report, 2002.

Table 5 shows providers of health services in Zambia by level of care. In 2002, it was estimated that 1, 478 health facilities were formally registered in Zambia.

The government owns about of 86 percent of the health facilities: 100 percent of the tertiary facilities, 67 percent of the second-level facilities, and 80 percent of the health centers.

Missionaries own 33 percent and 28 percent of the second- and first-level facilities, respectively. These are mainly located in rural areas. Mission hospitals are mainly found in rural areas that are not served by government facilities. The distribution reflects the historical orientation of the various missionary organizations active in Zambia. In general, individual denominations tend to take responsibility for different regions and have had a tendency to favor the provinces least served by Ministry of Health facilities. The government provides them with some subsidies, while the management rights are retained by the individual denominations.

The data on the private sector in Zambia are very scant, and different sources give different statistics. In 2002, the Ministry of Health and the Central Board of Health estimated that 118 private facilities were registered and run by doctors. These account for about 23 percent of the first referral or district hospitals and 31 percent of the urban health centers in Zambia. The private for-profit providers are concentrated in urban areas along the line of rail mainly for profit motives. They are not subsidized by the government. Most of the first referral private hospitals are owned by private individuals and corporations, especially the mining industry. They are concentrated in Lusaka and the urban towns of the Copperbelt Province.

Table 6: Distribution of facilities by province

Province	Population (millions)	RHC No.	UHC No.	DH No.	GH No.	CH No.	SH No.	ODH No.	OH No.	OHC No.
Central	1.05	59	11	5	1	0	1	0	1	18
Copperbelt	1.92	34	77	4	0	2	1	3	7	111
Eastern	1.38	126	1	3	1	0	0	1	4	3
Luapula	0.755	89	1	0	1	0	1	3	1	8
Lusaka	1.64	41	30	0	0	1	1	2	1	11
Northern	1.27	113	1	5	2	0	1	1	1	13
North-Western	0.67	103	3	3	1	0	0	1	5	18
Southern	1.3	116	20	6	2	0	0	1	3	29
Western	0.81	87	3	4	1	0	0	1	4	5
Total	10.8	768	147	30	9	3	5	13	27	216

Source: MoH and CBoH, 2002,

RHC = Rural Health Center; UHC = Urban Health Center; DH = District Hospital: GH = General Hospital; CH = Central Hospitals; SH = Specialized Hospitals.

As can be observed, the physical distribution of hospital care is unbalanced among the provinces in relation to population size, as it is also between the districts. District hospitals are found in most of the districts. However, the following facts are worth noting:

- At last count, 19 districts were without a hospital.
- Thirty districts had one district hospital each.
- Two districts had two district hospitals each.
- Nine districts had no district hospital, but had a general or central hospital.
- Eight districts had both a district hospital and a general or central hospital.

The geographical distribution of health facilities in Zambia is shown in figure 2 (above) and figure 3 (below).

The distribution of beds per capita is shown in table 7 below. There are 26,318 beds in Zambia. These represent a national per capita number of beds of 2.4. About 75 percent of the beds are in government facilities while 25 percent are in private facilities.

Table 7: Distribution of beds by province

Province	Population (millions)	MoH Centers		MoH Hospitals		All Facilities (Public and Private)	
		Beds and Cots, Total	Beds and Cots per 1,000	Beds and Cots, Total	Beds and Cots per 1,000	Beds and Cots, Total	Beds and Cots per 1,000
Central	1.05	526	0.50	1,166	1.11	1,995	1.90
Copperbelt	1.92	489	0.26	3,521	1.84	5,825	3.04
Eastern	1.38	844	0.61	1,206	0.88	2,791	2.03
Luapula	0.755	676	0.90	945	1.25	1,978	2.62
Lusaka	1.64	436	0.27	2,263	1.38	2,762	1.68
Northern	1.27	1,150	0.91	1,393	1.10	3,180	2.51
North-Western	0.67	772	1.15	830	1.23	2,722	4.04
Southern	1.3	661	0.49	1,465	1.09	3,213	2.40
Western	0.81	485	0.60	846	1.04	1,852	2.29
Total	10.8	6,039	0.56	13,635	1.26	26,318	2.43

Source: MoH and CBoH, 2002, MoH = Ministry of Health.

In 2002, the number of private beds was mainly concentrated in the Copperbelt and North-Western Provinces with 2,085 and 1,120 beds, respectively. The relatively large bed capacity observed in the North-Western Provincecan be attributed to the concentration of mission hospitals in the region.

5. Profile of the Private Sector in Zambia

The private health sector in Zambia comprises private not-for-profit mission hospitals and health centers and private for-profit health care providers.

Private for-profit providers

The private for-profit health sector in Zambia is an important source of primary health services for many people including the poor. Its role has become very significant since the government liberalized the health sector in 1992. Despite the country's long history of reforms, the role of the private for-profit providers has largely been disregarded by the government.[4]

Composition and distribution

The private for-profit sector comprises formally registered private for-profit hospitals and clinics, pharmacies, and drug stores. In addition, there is a largely informal subsector of not fully qualified providers such as traditional healers, traditional birth attendants, herbalists,

[4] The 2008 Ministry of Health census of health facilities does not comprehensively capture and include the private sector, although it formally registers these facilities through the Medical Council of Zambia.

and drug vendors. The sector has been disregarded in the overall health sector reforms in Zambia.

This section focuses on the private for-profit providers that are formally registered by the Medical Council of Zambia, for the purpose of exploring the potential to extend contracting from the public sector to the private for-profit sector and vice versa. For-profit providers include nursing homes, hospitals, and consulting rooms. The sector has grown from 327 facilities in 2000 to 526 facilities in 2004. The clinics and hospitals are concentrated in Lusaka and along the railway. In 2004, 48 percent of the hospitals and 42 percent of the consulting rooms were located in Lusaka. The Copperbelt Province accounted for the second largest share of hospitals (43 percent) and consulting rooms (36 percent). The two regions host over three-quarters of the private for-profit health facilities in Zambia. The 526 private health facilities constitute a large proportion of the health sector in Zambia. Consulting rooms provide basic primary health care.

Table 8: Distribution of private for-profit health facilities, 2003–2004

Province	2003			Total	2004			Total
	Nursing Homes	Hospitals	Consulting Rooms		Nursing Homes	Hospitals	Consulting Rooms	
Central	1	0	27	28	1	0	30	31
Copperbelt	2	9	175	186	2	10	178	190
Eastern	0	0	11	11	0	0	13	13
Lusaka	5	11	194	210	5	11	209	225
Luapula	0	0	10	10	0	0	10	10
North-Western	0	0	3	3	0	0	3	3
Northern	0	0	12	12	0	0	12	12
Southern	0	2	36	38	0	2	36	38
Western	0	0	4	4	0	0	4	4
Total	8	22	472	502	8	23	495	526

Source: Medical Council of Zambia, 2005.

Strengths and constraints

Most of the consulting rooms are located in residential areas catering to all groups of health care seekers, even the poor. In a recent study by Wake et al. (2008), most of the managers of private for-profit facilities observed that they have a location advantage over public and mission facilities in urban areas. Moreover, they provide quality and efficient health services to the community. Although consulting rooms mainly provide primary health care, some private hospitals provide both primary and specialized treatment.

The findings of the survey revealed that the private for-profit providers are very interested in collaborating with the government, especially in both curative and preventive services.

Several survey respondents stated that the main obstacle for private health care providers in delivering their services in Zambia is the absence of an internal market to support private sector activities. To start a private practice, providers must already have the resources they need as there are no good credit facilities available. Another respondent claimed that while the private sector is recognized as important, they are not fully brought on board. This is

because there is no direct platform for public-private interactions. In terms of policy input, the private health practitioners' association of Zambia presents its policy concerns through the general practitioners' association, the Medical Association of Zambia. They are completely left out, for example, in training and dissemination activities. Finally, according to representatives from professional organizations, the private sector is constrained by the high startup cost, weak purchasing power of their often poor clients, and the fact that facilities are small and typically only offer primary health care. Furthermore, the professional organizations noted that there is competition from illegal health care providers, which are not affected by taxes and not regulated by any professional body.

Despite their perceived strengths, most of the managers interviewed stated that their expansion and delivery of affordable health care is constrained by a number of factors. These factors include an increasing number of nonpaying patients coupled with a decline in demand for health services, limited availability of medical supplies, and the general high cost of drugs. Furthermore, managers noted that the country lacks cheap credit because interest rates are too high (averaging 20 percent per annum). This scenario is compounded by relatively small internal markets and what are perceived to be high government taxes. On the infrastructure side, the managers observed that they are faced with high costs and an unreliable supply of services like electricity and water.

Stakeholder perceptions

In the same study, Wake and colleagues (2008) interviewed a number of policymakers and stakeholders on their perceptions of the private sector in Zambia. A number of respondents emphasized that there is no clear public-private division in Zambia, at least not among qualified providers. Public sector staff also work in the private sector. This means, in practice, that the public sector subsidizes the private sector as public sector employees sometimes neglect their public duties to do work in the private sector. Furthermore, one respondent argued that private providers could provide services to the poor at a low cost, and compensate for the loss they incur on these patients by levying higher prices for better-off patients. Another respondent said that private sector facilities should, in theory, offer services of better quality because they generally charge higher fees for their services. Representatives from one nongovernmental organization and one professional organization stated that the role of the private sector should be complementary to that of the public sector and help in mobilizing resources for health. Finally, one donor representative argued that the private sector can be used (through contracting, for example) for certain activities that they provide more cheaply than the public sector. One such example is immunization. On the other hand, the Ministry of Health has no policy framework for guiding public-private collaboration. Such collaborative relationships exist, but they are not particularly common.

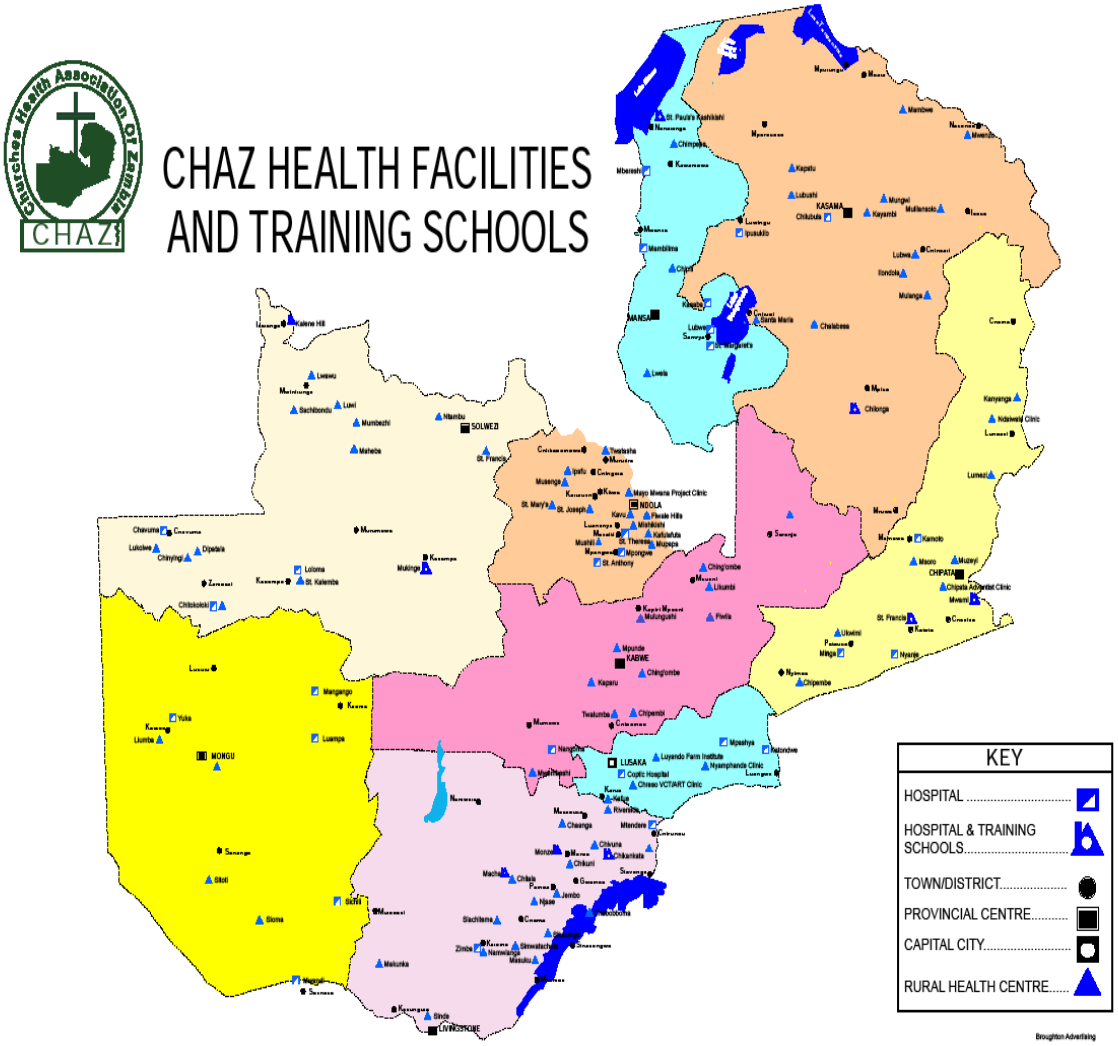
The professional organizations are more directly involved in policy formulation through the technical working groups as they are engaged as technical experts by the Ministry of Health. Professional organizations are, for example, involved in decisions on standards and guidelines that all health care providers must adhere to. One organization also reported that it had been consulted on the subject of contracting out services to private clinics.

Faith-based organizations

Faith-based organizations have been very active in health care delivery. They are coordinated by an interdenominational nongovernmental organization of Protestants and Catholics called

the Churches Health Association of Zambia (CHAZ), which has been in existence since 1970. It has 133 affiliated church health facilities comprising secondary and primary hospitals as well as health centers principally providing ambulatory care and some inpatient care. CHAZ affiliates, which provide almost 50 percent health care coverage in rural areas and almost 33 percent of total health care, are the second largest health care provider, after the government (CHAZ Strategic Plan 2006–2011). Studies on perceptions of health care quality have often ranked CHAZ-affiliated facilities as the preferred providers in relation to both the government and other private sector facilities in the rural areas because they are perceived to offer a holistic approach to health care through spiritual and clinical services. Figure 3 below shows the geographical distribution of mission hospitals in Zambia.

Figure 3: Distribution of mission hospitals in Zambia



It should be further noted that CHAZ is the clearing-house for mission hospitals. It is an umbrella organization that does not have a hierarchical relationship with mission hospitals. This implies that CHAZ acts as a buffer between the mission hospitals on one hand and the Ministry of Health and cooperating partners on the other.

In terms of governance, the CHAZ secretariat falls under the jurisdiction of a council that is elected every two years. The council is the highest policy organ with representation from the mission hospitals and governing bodies of member institutions. The council meets annually. There are currently sixteen council members representing churches that own mission hospitals. The General Council elects the board of directors from within the constituency. The board members are elected from the health facilities. The role of the board is to oversee the implementation of policies.

Functions of the CHAZ secretariat

CHAZ is the technical wing of the church in health services. It performs the following functions:

- Execution of the board of directors' decisions
- Coordination of the mission health care providers
- Representation and advocacy on behalf of mission facilities to the government
- Provision of technical support and capacity building and logistical support (procurement and delivery of drugs, mobilization of resources—both financial and material—assistance with the clearance of project personnel by the immigration authorities)

CHAZ has to mobilize resources in order to perform these functions. The secretariat operates on resources from donors, not on government funds.

Relationship with the government

Faith-based organizations are an integrated part of the public health care system. The relationship between the mission facilities and the Ministry of Health has existed since the 1970s through a loose arrangement in which the government provided financial and human resources assistance to mission facilities. This relationship was institutionalized in 1996 when the government adopted the National Health Strategic Policy, which emphasized the government's responsibility to provide health care to its citizens. Thus, private-public partnerships in health care delivery were encouraged.

The government felt the need to formalize this relationship. As a result, the government and CHAZ signed a memorandum of understanding in which they agreed that CHAZ institutions should provide health services in accordance with the provisions of the National Health Services Act of 1995 and that the churches, through CHAZ, would act as a complementary partner to the government in health care delivery.

The memorandum of understanding spells out the modalities for establishing management boards, staff establishments, funding for general operating costs and outreach services, capital projects, and training institutions.

The memorandum of understanding gives management boards administered by churches the same powers as those established under the National Health Services Act of 1995. The parties further agreed that the majority of the members of the management board established under this memorandum of understanding are to be nominated by the managing church and thereafter by the minister of health. Representative churches in the health institutions would be nominated to sit on the district health boards of the districts that have church-related institutions. The parties also agreed that the heads of the government and church hospitals who are not members of management boards would be members of the District Health Management Teams in the districts where they are stationed.

Generally, mission hospital boards are more autonomous than their Ministry of Health counterparts. For example, mission hospitals may have accounts abroad and procure drugs own their own (Ndonyo 2005).

6. Contracting Models in Zambia

Contracting in health services in Zambia occurs at various levels and among different players. As table 9 shows, contracting occurs within the public sector and between the public sector and the private for-profit and private not-for-profit providers. Further, private for-profit providers also contract with the public and private not-for-profit sectors for some health services. The private sector providers also contract with each other for some services. This section discusses contracting arrangements based on literature reviews and interviews with various actors in the health system from the public and private sectors.

Contracting in the public sector: Purchaser-provider design

Contracting was adopted as part of the economy-wide reforms to enhance efficiency and resource allocation with the goal of improving service delivery. Prior to the 2005 institutional reforms, several contracting models existed in Zambia. See table 9 below.

Table 9: Services and types of actors in contracting

Type of Service or Function Contracted		Actors in Contracting Arrangements		Implementation Monitoring and Evaluation Mechanism
Type	Mode of Contracting	Principal	Agent	
Clinical, nonclinical, management, finance, systems, etc.	Provision of the BHCP and other interventions	Ministry of Health	Central Board of Health	Strategic plan and national indicators
Clinical	Provision of the BHCP	CBoH	HMBs	Defined services and interventions, accreditation based on quality, quarterly performance audit, quarterly routing of HMIS reporting, quarterly FAMS

				reporting
Clinical	Provision of the BHCP	DHBs	HMBs, FBOs, DHBs (Other private for-profit)	Defined services and interventions, accreditation based on quality, quarterly performance audit, quarterly routing of HMIS reporting, quarterly FAMS reporting
Clinical	Specific services based on the BHCP	DHBs	Private sector	Based on agreed-upon contracts
Nonclinical	Management contract: Pharmacy-related Essential Drug List	CBoH	Medical Stores Ltd., FBOs	Quarterly HMIS
Nonclinical	Management contract: Pharmacy-related Essential Drug List	DHBs, HMBs MoH	Medical Stores Ltd., crown agents, private pharmaceutical firms/providers	Performance indicators: • Number of orders and deliveries • Volume of deliveries • Timeliness and accuracy of deliveries to customers • Value of goods delivered • Cost of delivery per kilometer
	Laundry, catering, security, maintenance	DHBs, HMBs,	Private firms	
Clinical	Disease selected program areas (e.g., provision of anti-retrovirals by private sector	DHBs, HMBs, (MoH)	Private firms, FBOs	
Clinical, nonclinical, functions	Franchising	DHBs, HMBs	FBOs, private sector	

BHCP = Basic Health Care Package; CBoH = Central Board of Health; DHBs = District Health Boards; FAMS = Financial and Administrative Management System; FBO = faith-

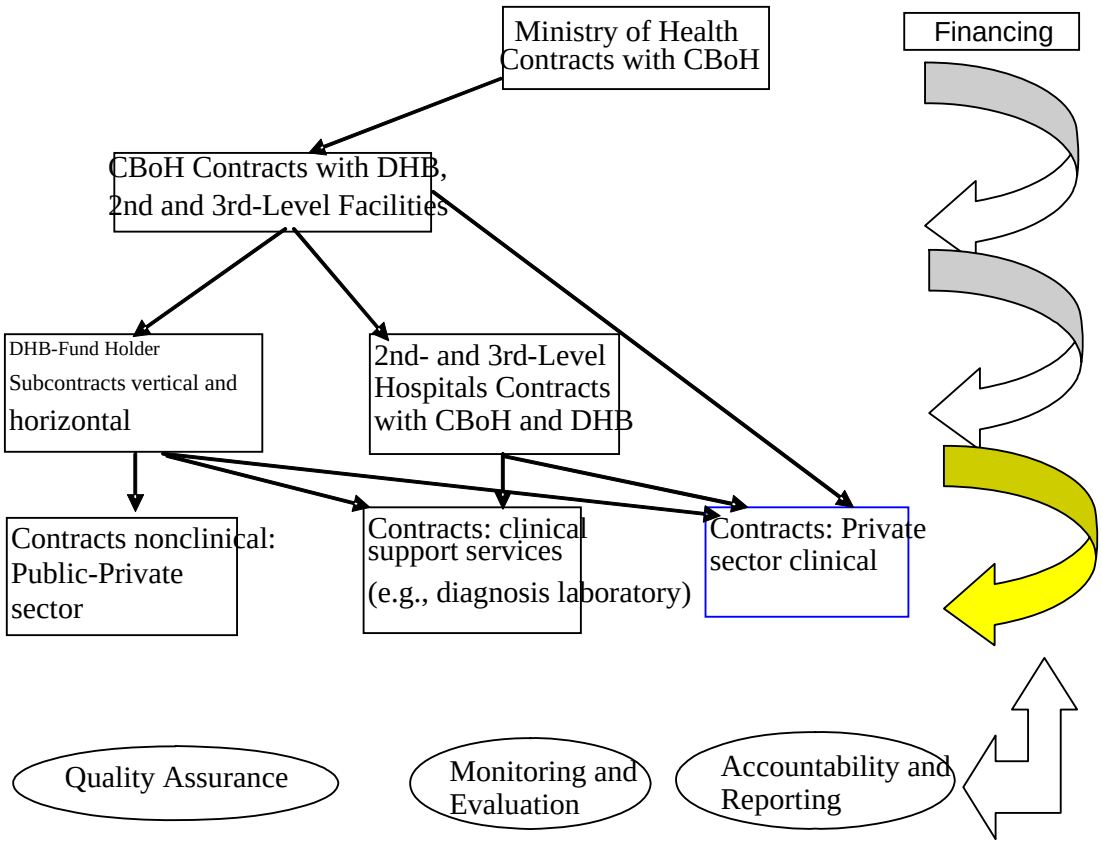
based organization; HMBs = Hospital Management Boards; HMIS = Health Management Information System; MoH = Ministry of Health.

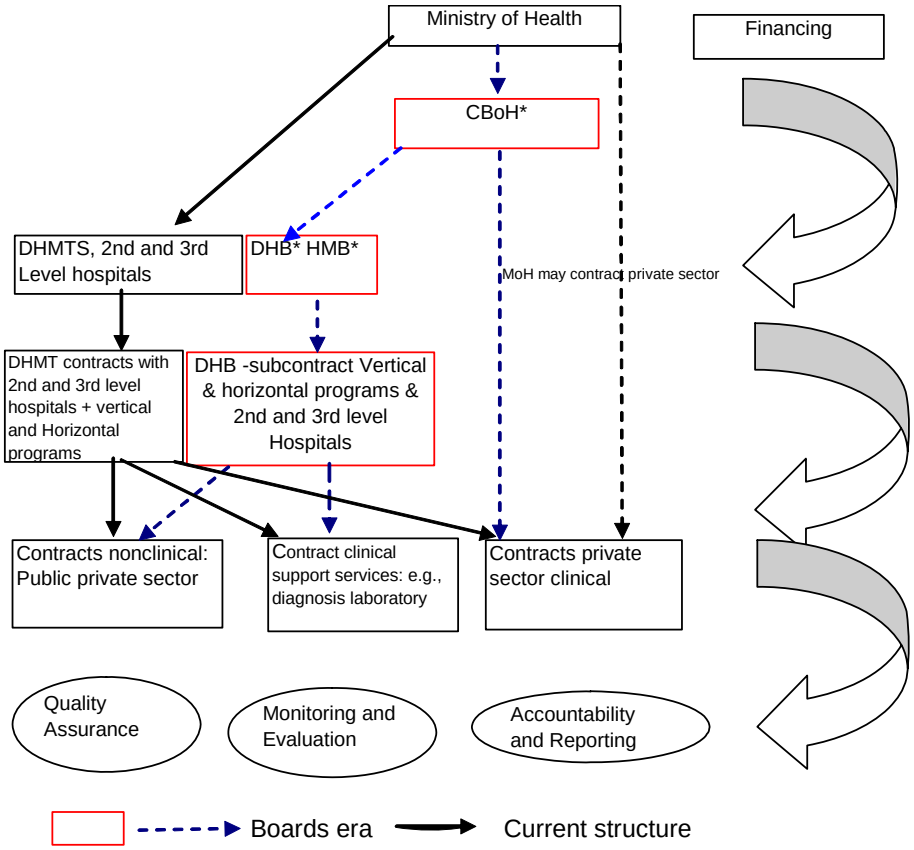
The contracting mechanisms outlined in the table above were designed to ensure efficient delivery of health services through the creation of an internal market. The key tenets of the contracting mechanisms are:

- Creation of an internal market structure through public-to-public sector contracting
- Contracting-out of defined services based on predetermined criteria of services using the Basic Health Care Package for primary, secondary, and tertiary services
- Contracting-out through franchising primary health care services to the private sector in the urban areas and areas that are not served by the public or faith-based organizations in the rural sector to supplement health care service
- Contracting-out to the private sector for clinical and nonclinical services

The structure for contracting in the Zambian health system is illustrated in figure 4 below.

Figure 4: Structure of contracting in the public health system





Further, Provincial Medical Offices were reconstituted into Provincial Health Offices. The principle behind these market-based organizational and financing reforms was that they would promote efficiency, effectiveness, and equity in the health sector. Through purchasing a package of core health services defined in the Basic Health Care Package, from District Health Management Teams or Hospital Management Teams, it was envisaged that these entities would be more responsive to local communities while being accountable to the agent. Moreover, contracting arrangements would induce Hospital Management Boards to be more efficient and also espouse equity goals. Thus the Central Board of Health tended to go beyond the mere allocation of resources to strategic purchasing for equity and quality through contracting (Masiye et al. 2006).

Contracting-in: Purchaser-provider design

After the 1992, reforms, there was a split between the Ministry of Health as purchaser of services and the autonomous boards as health service providers. The Ministry of Health maintained the responsibility for resource mobilization, policy guidance, and strategic planning. Its mandated roles included contracting with the Central Board of Health for health care delivery and provision. As a semi-autonomous institution, the Central Board of Health provided advisory services and guidance to district and hospital boards. Its responsibilities were commissioning health services, regulating health services, running failing boards, assessing performance, and managing human resources (MoH 2000).

The Ministry of Health contracted with the Central Board of Health, while individual district and hospital boards signed annual service contracts with the Central Board of Health to undertake a range of specified services to a given population in return for monthly grants from government and donor funds (MoH 1998). The Ministry of Health purchased services while the Central Board of Health commissioned them. The district boards signed contracts and managed funds for health centers. These contracts were renewable every year.

Another function that the Central Board of Health performed was the provision of pharmaceuticals. It served as a go-between for pharmaceuticals between the Medical Stores Ltd. and the district and hospital boards. The Central Board of Health provided contractual services for pharmaceutical services and clinical services between itself and the secondary and tertiary boards as well as the statutory boards and Medical Stores Ltd. The Central Board served as fund holder for the secondary and tertiary services.

Contracting-in process

Before signing a contract, the District Health Boards and Hospital Management Boards had to develop action plans and budgets that provided the basis for contracting. The process is described below:

Budgeting process 1996–2005

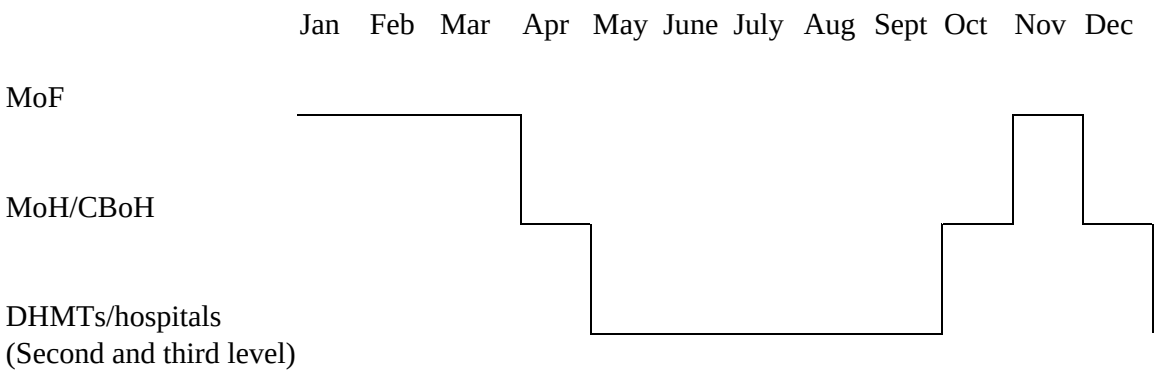
After the passage of the National Health Services Act of 1995, the contracting-in process began with the formulation of budgets by the providers, which formed the basis of payment. Thus, as a prelude to understanding the contracting-in process, it is important to highlight the way the budgetary process was undertaken in the health sector.

Following the purchaser-provider split, the Central Board of Health received funding from the Ministry of Health that drew resources from the national treasury. The ministry formulated national priorities through the strategic plan. The national priorities were developed based on the bottom-up top-down approach (i.e., districts identified priorities that the ministry consolidated and adjusted to fit the national picture). Operationalization of the strategic plan was executed through the annual budgetary process managed by the Central Board of Health. The district boards, being responsible for planning for the provision of health care, consolidated the district action plans consisting of district hospitals and health centers. Similarly, the hospital boards formulated their own action plans. The action plans included the programs, activities, and funding levels of the various stakeholders in a particular area.

Action plans outlined the programmatic and financial objectives of the annual budget. During the course of the fiscal year, the Central Board of Health maintained the responsibility of monitoring the implementation of the action plans by the district and hospital boards. See figure 5 below for an outline of the process.

The district and hospital boards started their planning in April and submitted their indicative budgets to the Central Board of Health by September. Apart from considering priorities established by the Central Board of Health, managers formulated budgets that took into account the number of people in the catchment area, adjusted for the disease burden indicators and the number of people treated in the previous year (Masiye et al. 2006).

Figure 5: Budget planning process in the health sector



MoF = Ministry of Finance; MoH = Ministry of Health; CBoH = Central Board of Health; DHMTs = District Health Management Teams.
Source: Masiye et al. 2006.

Following the submission of the indicative budgets, the boards would meet with the Central Board of Health to agree on and finalize the budgets. The Central Board of Health consolidated the hospitals' and district boards' budgets. The consolidated budget was then forwarded to the Ministry of Health for onward submission to Ministry of Finance. As noted earlier, some of the activities and programs in the action plans were funded by the stakeholders.

By October–November, the Central Board of Health would have known the total government and donor funding to the boards for the following fiscal year. Hospitals and districts boards were informed by November–December about the upcoming year's budgets. The managers then signed contracts committing themselves to following the action plans during the fiscal year.

Budget contents

Regulations state that funds to providers from the government and donors are to be used as operations grants. The budgets are line-item budgets meant to cover specified recurrent expenditures. Each line item is a proportion of the total budget (Masiye et al. 2006). Disbursements without prior approval by the Central Board of Health were not allowed, and contracts clearly state the sanctions for failing to meet this requirement. The items that are covered in the budget include utilities (water, telephone, and electricity), maintenance, patient food, fuel, a small proportion of capital expenditure allowances to health care staff, and small proportions of essential drugs and salaries.

Under the contracting arrangement, the government is supposed to cover salaries and personnel costs excluding allowances. The government procures drugs through the central system managed by the Medical Stores Ltd.

Paying the providers

Health care providers were funded through the SWAp mechanism. In addition, health centers and hospitals supplemented their income through cost sharing and cost-recovery user fees.[5] Hospitals also received funding through the purchase of beds by lower level facilities that referred patients to them. According to the guidelines, the hospital boards negotiated with the district boards on how much of their grants the districts should allocate to the hospitals providing for the purchase of beds. The negotiations were limited within 20–40 percent of a board's operations grant.

Bypass fees were imposed on patients who self-referred. In cases where the patient did not pay the fees, the referral institution could claim the revenues arising from such from the respective District Health Management Team under the contractual agreement.

Disbursement of funds

Once the contracts were signed, the Ministry of Health released funds to the Central Board of Health on a monthly basis, while basket funds were released on a quarterly basis. In turn, the Central Board of Health released fund to district and hospital boards on a monthly basis in accordance with the contracts signed. Both the basket funds and government funds were supposed to be released at the same time; however, in practice, the releases occurred at different times.

Contracting among public providers

The three-tier referral system discussed earlier provided the framework for contracting among public health care providers with the decentralized units as implementing agents. As noted earlier, each level of care had a clearly articulated or defined package of health care for the target population.

First-level referral system: The district boards were fund holders responsible for providing primary health services as well as the first-level referral services. They also served as gatekeepers in the purchasing and provider contracting system, by providing the entry point for the patient and determining the required services for attention and reference based on individual cases. For contractual purposes, they were authorized to purchase services on behalf of the catchment populations. Services at the district level could be purchased for a variety of reasons such as the following:

- Insufficient capacity or supply in the respective District Health Board. This could be provided by another District Health Board.
- Lack of a respective district facility, in which case a corresponding District Health Board and/or secondary or tertiary facility, depending on different factors, could be contracted for specific services
- Lack of expected services, in which case, for nonclinical services, other supplies could be contracted to provide the service

[5] Cost sharing is also referred to as low-cost sections of the providers. Patients meet a small proportion of the treatment costs. Cost recovery exists mostly in hospitals. Some sections of the hospital operate on private sector principles and charge full treatment costs. The services in the high-cost section are expected to be efficient with availability of medical personnel and drugs and supplied at all times.

According to the guidelines, the district boards were allowed to negotiate with secondary or tertiary providers on how much of their grant they could allocate for referral purposes. The amounts varied across different districts but were within the range of 20 and 40 percent of the district grants, depending on the outcome of the negotiations.

Contracting-in at Various Levels of the Referral System

Purchase of Beds: This is a term designating the contractual arrangements for the funding of hospital services. The District Health Management Teams (DHMTs) use the number of beds as the basis for determining the value of the contract for the financial year. The purchasing of beds refers to the number of bed capacity that a DHMT assesses as its requirements in the event that it does not have a district level hospital and so has to seek first-level clinical care from the next level of service available such as a secondary or tertiary facility or from the neighboring first-level services or DHMTs that may have surplus service to extend to the DHMT seeking to buy such services. It has been the design of the policy of purchaser provider contracting that if the DHMT does not have a district hospital that falls directly under its jurisdiction or control but has a secondary or tertiary facility, the facility available is mandated to provide or allocate a certain level of bed capacity for the provision of first-level health care services. By the same principle, the district was under the obligation to purchase first-level hospital services. In this context, the DHMT did not have the option of deciding not to purchase such services as it was expected that district or primary level services were a mandatory prerequisite for efficient and effective resource allocation and resource use. The purchase of beds was then based on a recommended "bed price" or some form of capitation. This however was subject to limitation within the 20 – 40 percent expenditure band of the total district health expenditures. Each contract between the DHMT as a fund holder (with the existence of the Central Board of Health) lasts for duration of 12 calendar months. Effectively, the contracts cover the period from January to December for ease of operations. Strictly speaking, therefore, the contract overlaps with the financial year, which runs from July 1 to June 30. This scenario has been slightly complicated by the fact that, although the government financial year runs from January to December, public expenditures are only authorized in April and run to March 30.

Second-level referral service: Secondary hospitals served as referral facilities for the first level and provided technical backup, capacity building, and health services.

For contracting purposes, these facilities were contracted to provide services to the District Health Boards. In addition, these facilities were contracted directly by the Central Board of Health to provide secondary level services to designated catchment populations.

Third-level referral services or tertiary and specialized hospitals: These formed the apex of the referral system. For contractual purposes, these institutions were contracted by District Health Boards to provide the required primary health services and by the Central Board of Health to provide the required tertiary services. Thus, they negotiated their contracts with the Central Board of Health for specialized treatment and with the District Health Boards for necessary primary health services.

Monitoring and evaluation

Annual action plans developed by hospitals and accepted by the Central Board of Health set forth the budgets and targets that the facility intended to achieve. In addition, contracts

clearly specified the obligations of each party to the agreement. These formed the basis for evaluation of performance by the district. Further, the provider undertook to produce quarterly reports and an annual report indicating progress made toward the set targets in the action plan. The Central Board of Health made two types of assessment every quarter: First, the board conducted performance assessments to determine whether contractees were achieving set targets in the action plans. Second, the board conducted technical assessments to determine whether providers had the technical capacity to perform the required tasks. Based on the identified needs, the Central Board of Health provided technical assistance to poorly performing districts instead of applying sanctions.

Financial assessments

The allocation for each item of the budget continue to be specified as a fixed proportion of the total budget allocation, and the hospitals are not allowed to reallocate funds across lines in the stipulated budget according to guidelines. Penalties are stipulated in the contracts with the Ministry of Health and the Central Board of Health for deviations from targets. The budgets are to cover expenses for water, electricity, telephone, cleaning, patient food, fuel, allowances to health care staff, and a small proportion of drugs. The purchaser has the right to withdraw funding if the provider failed to provide satisfactory financial and or progress reporting.

Human resources

The National Health Services Act of 1995 empowered boards to hire staff and to motivate staff members to improve health outcomes. Although the boards hired staff on a contractual basis, there was no commensurate increase in funding from the Ministry of Health. This resulted in huge wage bills that could be settled only by reducing operations grants to service providers. The boards could not service the gratuities when they fell due, resulting in boards accruing huge debts. This made the de-linkage of staff from the Public Service Commission politically difficult. Thus, the government covered salaries (but not allowances) for health care personnel. These were paid for directly by the Ministry of Health.[6]

Pharmaceutical supply chain investment

The supply and management of drugs is operated by the autonomous state-owned Medical Stores Limited (MSL). It was set up in 1976 with a mandate to procure, store, and distribute pharmaceutical and medical supplies on behalf of the Ministry of Health. However, the procurement function was taken over by the ministry and placed under its Procurement and Supply Unit. By the mid-1990s, MSL experienced some difficulties in providing the expected services. As a result, the management of MSL was contracted out to a private for-profit company in 1998 through a competitive bid which was won by GRM. After the contract with GRM expired in 2004, the contract was re-tendered and awarded to Crown Agents, a company incorporated in England and Wales with a branch in Zambia, and it has remained the contractor since then. Under the contract, the Ministry of Health pays all operational and capital expenses of MSL to handle national drugs and supplies on its behalf. The broad objectives of the contract include the following:

- Managing the operations of MSL professionally and efficiently

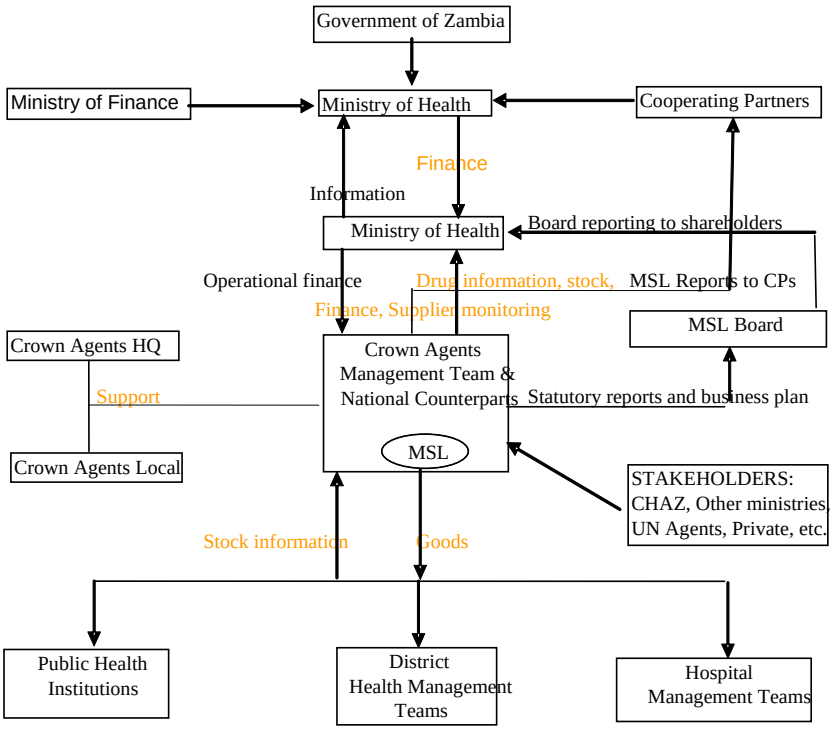
[6] The failure to de-link staff from the PSC to boards was later cited as a reason for dissolving the boards.

- Developing the capacity of the MSL staff complement, with a focus on the senior managers
- Developing and institutionalizing new systems and operating procedures where appropriate
- Planning and implementing major capital investment programs covering all areas of MSL

As an autonomous institution, MSL is allowed to serve other clients that require its services such as CHAZ, cooperating partners, and other private health care providers.

Figure 6 shows the contracting arrangement for drug and supplies management and the role of MSL. The actual procurement of drugs is done by the Procurement and Supply Unit in the Ministry of Health. Depending on the size of the tender, planned procurements are reviewed by the Zambia National Tender Board. Generally, the drugs are procured from international drug manufacturers, and very few drugs are procured within the country.

Figure 1: MSL role in drug supply management



Once drugs and supplies have been secured and have reached the country, MSL then takes over the storage and distribution functions. Thus, warehousing and distribution are performed centrally by MSL, which distributes drugs and supplies regionally to the 72 District Health Management Teams and to the second- and third-level hospitals directly. MSL's core operations consist of order processing, stock and information management, warehouse management, and transportation and distribution. According to the guidelines, each hospital and district management team has a virtual account with MSL from which supplies and drugs

are drawn. MSL is supposed to supply drugs upon and in accordance with the requisitions from the hospitals and District Health Management Teams. Thus, MSL is responsible for ensuring equitable and reliable distribution of essential drugs to the 80 hospitals and 72 districts nationwide.

Financing of MSL

MSL submits a business plan for the coming year and negotiates a fee for carrying out the plan. Thus, MSL is not compensated on an activity basis, but is paid monthly in advance; it is funded as a grant, not as a line item.

The contract stipulates time frames and is renewable upon production of acceptable reports and based on terms and conditions agreed upon by the parties involved. The contract has details of duration and information on the responsibilities of the management contractor. In addition, the contract specifies transitional provisions to be met by the management contractor. Moreover, the contract obliges MSL to ensure that the procured drugs meet the quality requirements and related services.

Performance targets

The MSL is assessed based on the performance indicators stipulated in the management contract:

- Number of orders and deliveries to various District Health Management Teams and hospitals
- Volume of deliveries
- Timeliness and accuracy of deliveries to customers
- Value of goods delivered
- Cost of delivery per kilometer

Accordingly, MSL is required to report on its core operations, human resources, finance, accounts and audits, information technology, purchases, corporate governance, capital investments, and, in some cases, proposed details of the next project plan.

Contracting arrangements after 2005

Following the dissolution of the Central Board of Health, the Ministry of Health assumed the roles that the board had performed. Generally, the budgetary process, fund disbursement, and contracting procedures among the different tiers of the health sector have remained the same. However, the institutional framework has changed slightly. The roles that were played by the boards have been assumed by District Health Management Teams and Hospital Management Teams. In addition, the Provincial Health Offices have become the link between the boards and the Ministry of Health's head office.

Contracting with private for-profit and private not-for-profit organizations

The inclusion of the private sector through the establishment of partnerships is one of the key principles of the Zambian health reforms. The vision is to create strong, sustainable partnerships among all key stakeholders involved in health service delivery in Zambia. Accordingly, partnerships have been established in each district at all levels of service delivery. These partnerships allow key stakeholders to work together to analyze health

problems in their respective areas, identify possible solutions, develop joint work plans, and implement and evaluate the progress of their programs. In 1991, through its new polices, the Ministry of Health allowed public health fund holders to enter into contractual arrangements with private practitioners on a capitation basis (MoH 1991; MoH 2006). Since the mid-1990s, the government has entered into contractual arrangements with private not-for-profit providers and, to a lesser extent, private for-profit providers, as discussed below.

Contracting with private not-for-profits: Mission hospitals

Contracting-out to mission hospitals was guided by the 1996 memorandum of understanding between CHAZ, on the one hand, and the Ministry of Health and the Central Board of Health, on the other. Pursuant to the signing of the memorandum of understanding, CHAZ has been represented on most health committees at the Ministry of Health. At the district level, mission facilities actively participate in district and hospital annual planning processes. Like their government counterparts, they report on their performance and other indicators through the Financial and Administrative Management System (FAMS) as well as the Health Management Information System (HMIS).

Furthermore, CHAZ works with the National AIDS Council in the area of HIV/AIDS under which a separate memorandum of understanding exists outlining the relationship in the provision of HIV/AIDS interventions.

The memorandum of understanding between CHAZ and the Ministry of Health was revised in 2004 through a negotiated process. In the memorandum of understanding, the two parties agree that CHAZ institutions should provide health services in accordance with the provisions of the National Health Service Act of 1995 and that the churches through CHAZ would act as complementary partners to the government in health care delivery.

The act recognizes the continuation of management rights of health facilities under churches. The key elements covered in the memorandum of understanding relevant to contracting are discussed below.

Funding for general operating costs

The two parties agreed that the provision of the health package between the Ministry of Health to church facilities would be made on an equal basis, taking into account the status of the facilities as to whether they are health centers, or first, second, or third level. The eligible mission health facilities then receive an operational grant or funding of up to 75 percent of what the counterpart hospitals in the public sector receive. As in public Ministry of Health facilities, the government gives the mission hospitals the essential drugs kit based on the Basic Health Care Package, which church facilities are obliged to provide. On their part mission hospitals are also required to report annually to the Ministry of Health any moneys received as donations. Furthermore, the memorandum of understanding allows mission-administered facilities to submit their budgets for outreach services budgets to district boards and District Health Management Teams.

In addition to the memorandum of understanding between CHAZ and the government, various hospitals and District Health Boards can freely contract with mission facilities for services that they cannot supply and that may be available at these facilities. The referral system under the government facilities also applies to the CHAZ facilities. The

reimbursement process does not differ from the government procedures. Similarly, mission facilities can freely refer patients to and contract with public hospitals.

Human resources

The memorandum of understanding commits the Ministry of Health to second health staff to mission hospitals with the same privileges and conditions of service as their counterparts in government facilities. The government pays 100 percent of the personnel emoluments for most of the health staff working in mission hospitals. The seconded staffs are obliged to adhere to the ethos and ethics of the managing church.

CHAZ and its own facilities

Although CHAZ is an umbrella body for the mission facilities and negotiates the modalities through which resources are disbursed to member facilities, the CHAZ secretariat sometimes also enters into contracts with individual facilities for the delivery of specific health programs. Usually, funders of vertical programs sign negotiated contracts for the delivery of specific health services. In turn, based on the agreement with such partners, CHAZ signs subcontracts with its member institutions. The subcontracts specify the objectives, targets, indicators, and sanctions that may be imposed for not achieving the given targets.

Contracting with private for-profit providers

According to the Ministry of Health (MoH 1991), "private providers are free to enter into contractual arrangements with the Ministry of Health or any other health provider, public or private, on a capitation basis". Although the government has an open-door policy toward the private for-profit providers of health care, their level of participation has remained modest. Following the steady growth in private sector, however, various forms of private-public sector partnerships—which include the sharing of medical technologies, referral of patients, human resources, and facilities—have emerged, although these arrangements have largely remained informal.

For instance, under what is known as "dual practice," health staff are allowed to work during their free time in the public and private facilities that have no formal relationship with the government. Practitioners working in a public hospital may refer patients to their private facilities and vice versa, without any formal procedures and arrangement. One of the managers interviewed at a private hospital noted, "It's not uncommon for me to refer my patients here at the private hospital to see me from the public hospital for some of the medical laboratory procedures. Similarly, I refer some patients from the public to private hospitals for faster services and some procedures that cannot easily be done at the government facility."

In addition both private and public hospitals refer their patients to each other's facilities. However, there are neither negotiated arrangements nor established reimbursement processes under such circumstances. In this case achievement of targets is measured by the other party undertaking their given task.

Although formal contracting under this arrangement is not common, there are few exceptions. The contracting of services between Ronald Ross and Malcom Watson Hospitals deviates from the scenario above. Originally the two hospitals were owned by the same government mine and are located in the same town. While Malcom Moffat offered health services to the

high income segments of the society, Ronald Ross served the lower income groups and also included members of families of non-miners. In the arrangements, Ronald Ross hosted the laboratory services that were also used by Malcom Watson while the operations theatres are at Malcom Watson. Following the privatisation of the mines, Malcom Watson was taken over by the new mine owners while Ronald Ross remained a government facility. In order for, Malcom to access the lab services and Ronal Ross the theatre facilities, the two hospitals have a contract that provides for re-imbursement based on negotiations.

Disease/condition-specific contracting: Public-private

In the absence of formal contracting, some collaboration exists between the government and some private for-profit providers to make some services available to wider communities and facilitate the private sector's switch to new treatment guidelines. For instance, the establishment of global health funding initiatives and opportunities for specific diseases such as HIV/AIDS, TB, and malaria has created opportunities for enhanced private sector participation in health service delivery. Under such arrangements, the government has provided free TB drugs to some private hospitals to enable them dispense to a wider population. According to interviews, the private hospitals are not allowed to charge for the drugs. Rather, they charge for consultations and give free treatment. According to government officials, plans are under way to extend such arrangements for anti-retroviral therapy as well as malaria treatment. One of the objectives is to ensure that the private for-profit organization apply reatment standards set by government, especially on first-line treatment for some diseases (e.g., Coartem for malaria).

In addition, there is collaboration between the government and the private for-profit providers in public health programs such child immunization.

Contracting among private hospitals and private companies or corporations

Interviews with managers in private hospitals revealed that there are both formal and informal contracting arrangements among the various providers and employers for clinical services. Employers either directly or indirectly contract with private providers for core basic health services. During the various interviews, it was observed that very little negotiation takes place during contracting. Often hospitals charge the market rate for the services that they provide and give discounts to employers or insurance companies that have larger numbers of people that will seek health care from the facilities. Such contracts do specify the population categories as being either staff members only or with their family. One of the observed trends is that hospitals are given the global operations figure with which they could work. In addition, each member of staff could be entitled to a certain level of funding at the contracted hospital based on their conditions of service.

Very little or no evaluation of services is done directly. One of the corporate managers noted that they evaluate the services of providers through employees' ratings of the provider at the end of the contract period forming the basis on which contracts are renewed or discontinued.

Contracting among private health care providers

The interviews revealed that private health facilities are also involved in informal contracts with other private providers. Most of the contracting involves services that one provider may have but the other may not have. The commonest type of contracting occurs in laboratory

services. Often, private facilities refer their clients to other facilities for diagnostic services and reimburse the other facility for the service at a negotiated rate. In addition, hospitals also purchase beds from other private facilities when they are oversubscribed. The cost of the arrangement is borne by the hospital that makes the referral. Furthermore, there is contracting between a private laboratory and some private hospitals. Under the contracts, the private hospitals seek to be provided with a number of laboratory services. In a few cases, the rates are negotiated; otherwise market rates apply.

Contracting in the non-formal health system

In the non-formal health system, traditional healers practice more or less at random under the guidance of the Traditional Healers Association of Zambia which is works closely with the Ministry of Health but not on a formal level. There is no contracting-out of services in this sector. Traditional healers are usually handled with suspicion because most of their work is difficult to evaluate (see Wake 2008).

Vertical programs

Apart from the contracting discussed so far, other forms take the vertical programming approach. These contracts are undertaken when specialized services are needed either by the private sector or the public. These could be clinical or nonclinical. A number of contracting arrangements based on specific aspects of health services were found in several areas. Some of these are discussed below.

Public sector contracting with nongovernmental organizations

Interviews with Ministry of Health staff and managers of various nongovernmental organizations in the health sector revealed that the government contracts with them for various services based on their competences, ranging from clinical to nonclinical services. These tend to be short-term contracts, usually for a year or less. The contracts are based on the contractor needs assessment. Often the contracts specify the activities to be undertaken as well as the target audience. They also provide the terms of reference that stipulate the mode of operation, the amounts to be paid, and the overall expected performance. At the contracting stage, the government and the contractees negotiate the contracts which also specify the indicators of performance. Examples of the areas in which the government has usually contracted with nongovernmental organizations are reproductive health, family planning, adolescent sexual reproductive health, safe motherhood, public health programs (such as immunization, rabies control, and malaria prevention), and HIV/AIDs-related services. For example, the government contracts with the Planned Parenthood Association of Zambia (PPAZ) to provide specialized reproductive health services. In addition, PPAZ is also usually contracted to provide training of public personnel in aspects of reproductive health. Restrictions on the services are also spelled out, usually in line with the national laws existing at the time. For example, PPAZ does not perform abortions, which are illegal in Zambia.

Contracting for nonclinical services

Apart from clinical services, contracting mechanisms also apply to nonclinical services. Nonclinical services include security, catering, laundry, cleaning, maintenance, and printing. Although most public health facilities do not contract out the above services, a few of them do. The limited contracting in these services can be explained by the fact that most public institutions have departments tasked to perform these duties. For instance, most of the public facilities have laundry, catering, cleaning, and printing facilities as well as personnel to carry out these services. For the most part, these employees are contracted on a short-term basis and are referred to as Classified Daily Employees (CDEs). Hospitals also hire personnel with specialized skills to supply the above services. This scenario also characterizes the faith-based organizations. Nonetheless, the government contracts with the private sector for construction of infrastructure. Such contracts are handled through the Zambia National Tender Board.

On the other hand, contracting for nonclinical services is common in private for-profit facilities. Generally, the private for-profit providers noted that it is imperative to subcontract nonclinical services such as laundry and catering to enable them concentrate on providing their core services—health care provision. There is very little evidence of serious negotiation between the contractors and contractees of these services. Usually, flat market rates apply, but discounts are also considered depending on the nature of the contract. Contract renewal is dependent on the quality of services provided. Contracts are subject to termination if one party is dissatisfied with the service.

Over 90 percent of surveyed institutions that contract for nonclinical services observed that the quality and timely delivery of the services is the indicator of performance and the basis for renewal.

7. Findings from Case Studies

This section provides empirical characterizations of contracting models in Zambia based on the field work undertaken. The case studies covered six districts that were selected to depict the rural-urban dichotomy of the country. The study surveyed six District Health Management Teams—the Choma, Mazabuka, Lusaka, Ndola, Kitwe Mufulira, and Chingola DHMTs—in order to characterize contracting in Zambia at the service delivery level. While the private for-profit sector is limited in Choma and Mazabuka, the other districts have a relatively large presence of private for-profit health care providers. Mazabuka and Choma have first-level mission hospitals. It was envisaged that the characteristics and perceptions of the changes in contracting arrangements in the sampled districts and hospitals would provide a proximate view of the situation in Zambia.

Contracting and budgetary process

Since the dissolution of the Central Board of Health, the Ministry of Health acts through the Provincial Health Offices as the principal in the contractual arrangements between the fund-holding agents and the sources of the funds. The Ministry of Health has always acted as a source of funding. During its existence, the Central Board of Health operated as a financial

intermediary for the District Health Management Teams and as a fund-holding agent for the secondary and tertiary service providers. Currently, the Ministry of Health is the principal and fund holder for the secondary and tertiary health services providers, while the District Health Management Teams are fund holders for primary health care providers.

According to the findings, the contracting process has become quite blurred since the dissolution of the boards. The District Health Management Teams are unsure of both their own status as well as the status of the contracting arrangements and validity of the contracts being signed. Effectively, with the repeal of the Health Services Act of 1995 that led to the dissolution of the health boards (the Central Board of Health, the District Health Boards, and the Hospital Management Boards), the District Health Management Teams became institutions under the Ministry of Health as part of the civil service structure, rather than autonomous government organizations. As such, the rationale for the creation of the purchaser-provider split appears to have been eliminated while the Ministry of Health has taken over the role of purchaser and commissions contracts. During the interviews, one of the managers observed the following:

> "We appear to have the historical arrangements still in existence as no one has yet to write to us officially as to the changes that have taken place. We therefore follow almost exactly the same systems as prevailed under the previous (decentralized) system of the CBoH and the Health Boards".

Action plan and budget completion

The District Health Management Teams and Hospital Management Teams and the ministry all collaborate in the process of preparing the Medium Term Strategic Plans and also contribute to the government's three-year forward-rolling budgeting framework, known as the Medium Term Expenditure Framework. The annual action plans and budgets are developed from yearly revised framework budgets and the medium-term strategic plans.

To evaluate the two systems of contracting, managers were asked to compare and characterize the purchaser-provider split on a number of elements ranging from budgetary approval to evaluation. These are discussed below:

Budgetary process and funding modalities

After the dissolution of the boards, the role of contracting between the providers and the Ministry of Health was shifted to management teams. Managers in all the District Health Management Teams and hospitals observed that the budgetary and approval process has technically remained the same as before the dissolution of the boards. However, unlike under the provider-purchaser split arrangement, some of the districts and hospital managers observed that, although the budgets are approved, contracts are sometimes not signed by the Ministry of Health. This has raised questions about the validity of contracting in the health sector.

Disbursement of funds

The interviews revealed that the implementation of budgets under both systems has not been without difficulties. Particularly, managers observed that disbursements are characterized by inadequate and erratic monthly funding from the central level. While most managers

observed that the disbursement of funds was highly unpredictable and always delayed during the first year after the dissolution of the Central Board of Health, they noted that the system has improved slightly since 2007, both in terms of the predictability and amounts disbursed to providers. However, some respondents observed that the flow of funds has worsened.

The Ministry of Health merged the disbursement of the basket (donor) funding and government grant, as opposed to the Central Board of Health arrangement where the two grants were disbursed separately. In this respect, some managers observed that the disbursement of funds is much better under the current arrangement than it was under the Central Board of Health. However, the variation between the approved budget and disbursement still persists.

Although the merging of the basket and the Ministry of Health grant has relatively increased the amounts being received by the providers, some respondents observed that this change has adversely affected their delivery of health services. They argued that, while the basket funds were always on time during the Central Board of Health era, a slight delay now has adverse effects as it leaves providers without funds to run their operations. For example, one of the managers observed that under the Central Board of Health, the basket funds were timely while the government grant would be delayed for up to three months. At the moment, the combined disbursements tend to be delayed for up to one month.

As a result of the continued delays in disbursements, respondents, especially in hospitals, noted that they have to rely on other sources of funding to finance some items and activities that are ideally supposed to be covered under the operations grant. This occurs although the budget ceiling provided by the Ministry of Health (at the budgeting stage) does not take into account all the needs of the District Health Management Teams and hospitals. While District Health Management Teams and hospital managers prepare action plans and budgets based on the expected service volume, input requirements, and prices, the Ministry of Health issues a budget cap at the launch of the budgeting process through the indicative planning figure.

Although respondents stated that the Ministry of Health, like the Central Board of Health, has not been meeting financial obligations to the full, their average expenditure data for 2005 and 2007 reveal that the actual receipts exceeded the targeted funding levels. As table 10 shows, the excess expenditure over targeted expenditure under both systems arose from more than programmed expenditure on allowances.[7] This was more rampant under the Central Board of Health than the Ministry of Health (see table 10).

A closer examination of the expenditure patterns under the two regimes shows that the Ministry of Health has been closer to meeting the programmed expenditures on all cost items than the Central Board of Health.

[7] This could be explained by the fact that a number of health workers employed by the boards were not on the government's payroll. Their salaries were paid from allowances.

Table 10: Expenditure performance on selected cost items for DHMTs

	2005			2007		
Cost Item	Target	Actual	Variance	Target	Actual	Variance
Allowances	44%	57%	98%	10%	57%	82%
Drugs	12%	7%	-8%	31%	12%	1%
Maintenance	14%	17%	24%	21%	5%	-3%
Training	3%	2%	-3%	4%	7%	9%
Capital	26%	17%	-12%	35%	19%	11%
Total	100%	100%	100%	100%	100%	100%
Total (millions of Zambian kwachas)	1,134	1,484	—	1,284	3,739	2,455

DMHTs = District Health Management Teams.

In response to underfunding and delays in disbursements, most of the providers observed that they cut down on expenditure in non-priority areas such as payment of utility bills, quality of food given to patients, and, in some instances, allowances to staff members. In addition, providers tend to get goods and services from suppliers and only pay when they have funds available.. In some instances, hospitals enter into debt swaps to liquidate their debt by providing health services to creditors.

Generally, inadequate funding has a negative impact on adherence to targets and, consequently, quality and equity of access. Some managers stated that, with inadequate funding, they cannot afford to buy essential drugs once there is a stock-out or maintain the laboratory and theater equipment. As a result, they have either to provide prescriptions to patients or refer them to other facilities, thereby compromising the quality of care provided. Even in cases where an improvement in disbursements was noted, the respondents observed that it was too early to judge the impact on the quality of care. This is further supported by the empirical data, which indicate that staffing levels, bed occupancy rates, and patients' length of stay have remained fairly unchanged over the years (see appendix 2).

Regarding procurements, the responses were mixed. Most managers noted that the procurement and delivery of accurate drugs from MSL have slightly improved. However, some providers complained that the drugs are sometimes inadequate compared with the Central Board of Health period. The increased reliability of disbursements has led to improved local procurements, while the use of internally generated funds has remained the same. On the other hand, the delivery of supplies procured from the Ministry of Health has become less efficient.

Engagement of new staff and staff motivation

The responsibility of employing health staff under the Central Board of Health was delegated to the District Health Boards and the Hospital Management Boards. The managers noted the hiring of health staff was easier under the boards than it is now. Moreover, they stated that, unlike the board system which allowed managers to employ health staff as the need arose, the system is now more bureaucratic, resulting in delays of between three and six months in the hiring of health staff. This has adversely affected service delivery.

In terms of incentives, all mangers interviewed stated that the boards offered better incentives for staff compared with the Ministry of Health. However, the incentives were a source of conflict between the staff employed by the boards and those employed by the Ministry of Health.

Capitalization of public health facilities

According to the managers, most of the hospital infrastructure is in a deplorable state. Very little capitalization of health facilities took place during the board era. The condition has not improved under the Ministry of Health, although some managers expressed some optimism. In 2005, the capital expenditure budgets under the Central Board of Health represented 26 percent of total expenditures by District Health Boards, and only 17 percent (with a variance of -12 percent) of this amount was met. Under the Ministry of Health in 2007, capital expenditures were pegged at 35 percent, and only 19 percent was met with a variance of 11 percent. The facilities most affected by underfunding of providers include buildings, laundry facilities, utility vehicles, and kitchen facilities.

Reporting procedures

The institutional reforms that occurred after the dissolution of the boards have had a negative impact on service delivery. According to some managers, the management and control of both the Central Board of Health and Hospital Management Teams currently fall under the Ministry of Health through the Provincial Health Offices. Thus, all communications with the center have to go through the Provincial Health Offices. Managers stated that this has introduced a lot of red tape in accessing supplies and assistance from the Ministry of Health's head office. The delays in decision making associated with the post-2005 reforms make it difficult to execute functions at provider level. Efficiency and, eventually, the quality of service delivery suffer.

Creation of an internal market

Pursuant to decentralization of the provisioning of health care services in Zambia, an internal contracting market has been created within the public sector and mission hospitals. Contracting-in among the public health providers remains the largest market in Zambia's health system. This is followed by contracting between the mission hospitals and public hospitals. The data obtained from the mission facilities show that about 30 percent and 37 percent of their total incomes in 2005 and 2007, respectively was from public hospitals that contracted them to provide health services on their behalf. . This percentage excludes the income grant from the government channeled through their host District Health Management Team. Anecdotal evidence (mostly based on the 20–40 percent internal contracting arrangement) holds that over 35 percent of the resources disbursed to District Health Management Teams flows through the contracting-in arrangements.

Table 11: Contracting revenue for mission hospitals (Monze)

Income by Source	2003	2004	2005	2007
Host DHMT	29%	35%	24%	45%
User fees	7%	6%	6%	0%
Contracting services	27%	4%	30%	46%
CHAZ	26%	27%	9%	0%
Other *	11%	28%	30%	9%
Total	100%	100%	100%	100%
Total (millions of Zambian kwachas)	1,176.92	1,344.94	2,489.40	1,810.76

DHMT = District Health Management Team; CHAZ = Churches Health Association of Zambia. * include missionary partners abroad
Source: Monze Mission Hospital financial data base.

Mission hospitals like Macha (in a rural area) receive referral income from three surrounding District Health Management Teams. In addition, some public hospitals also refer their patients to it. On the other hand, there are no private for-profit institutions that refer their patients to Macha

Table 12: Contracting revenue at Macha Mission Hospital

	2005	Target	2007	Actual
Host DHMT	17%	38%	61%	33%
Other DHMTs (surrounding town)	28%	30%	39%	11%
Other public hospitals	12%	0%	0%	18%
Private resources	10%	0%	0%	0%
Other income	34%	32%	0%	38%
Total revenue	100%	100%	100%	100%
Total funds (millions of Zambian kwachas)	1,018	730.17	745.8	1,277.1

DHMT = District Health Management Team.
Source: Macha Mission Hospital financial data base.

On the expenditure side, the data showed that mission hospitals spent an average of 2 percent of their resources on contracting higher level public facilities.

Contracting with private for-profit providers

There is very little contracting among private for-profit providers on the one hand and mission hospitals and public health facilities on the other hand. According to respondents, informal contracting in health services among private for-profit and public institutions is limited mainly to laboratory and diagnostic functions. The most cited diagnostic and laboratory services procured from private institutions include CT scans and the endoscope. In instances where such contracting exists, involved parties often apply market prices to the services procured, which the patients often end up paying as the government may not pay for it.

Table 13 shows the expenditure by the Lusaka District Health Management Team, which does not have district hospital. Despite the high concentration of private for-profit health care providers that provide the first-level referral services in the city, the District Health Management Team does not contract with them for any clinical services (as evidenced by the expenditure pattern in table 13). Rather, it refers its clients to the University Teaching Hospital, which is a third-level hospital.

Table 13: Expenditure by the Lusaka DHMT

	Expenditure 2005	Expenditure 2007
District Health Office	1,164,336,557	1,312,587,821
First level (University Teaching Hospital)	613,195,148	800,180,119
Health centers	9,366,169,234	6,905,925,635
Public health programs	1,071,197,074	1,293,588,215
Total	12,214,898,013	10,312,281,790

Source: Lusaka DHMT Action Plan.

Constraints to contracting-out

There are a number of reasons that contribute to limited contracting between the private for-profits, on the one hand, and public and mission hospitals, on the other. The constraints arise mainly from two sources:

- The manner in which contracts are designed, funded, and administered
- The attitude of managers toward private sector contracting.

The design and administration of contracts: Most managers at District Health Management Teams observed that although contracting with private for-profit health care providers is allowed, it is in principle difficult to enter into any subcontracts with them because of the way the contracts between District Health Management Teams or Hospital Management Boards and the Ministry of Health are designed.

First, the contracts specify where services have to be purchased. The design of the referral system encourages contracting-in as opposed to contracting-out. For instance, the contracts specify that the District Health Management Teams have to purchase health services from second- and third-level providers. At the budgeting stage, these facilities factor in these funds as part of their budgets and merely claim for the funds during the implementation of budgets although commensurate services may not have been delivered.

Second, government funding is not only inadequate but also uncertain in terms of disbursement. This makes strategic purchasing of health services from the private sector difficult. Moreover, the private sector may not agree to lower prices to those applicable under the contracts.[8]

Attitudes of managers toward private contracting

Some managers reported that the private sector in their catchment areas does not provide services that cannot be procured from other government and mission facilities. One of the

[8] Private for-profit providers do not follow the Basic Health Care Package costing.

managers observed that most of the private facilities provide primary and first-level care which is well covered in government and mission facilities. In some rural districts, such as Choma and Mazabuka, the managers observed that the private for-profit facilities were nonexistent, and contracting-out was therefore limited.

Furthermore, one of the respondents observed that investing in government and mission hospitals instead of contracting with the extremely expensive private for-profit providers could be more cost-effective.

Some contractees (in the private for-profit sector) complained that District Health Management Teams and public hospitals do not often honor their payments in full and suggested that compliance mechanisms need to be put in place. Moreover, some respondents observed that increased interaction with the government through contracting could merely increase government regulations and stifle the development of the private sector.

Potential model for private sector contracting

Despite the above constraints, almost all managers agreed that contracting-out could give patients the right to choose their preferred provider and decongest the overcrowded public hospitals. In this regard, respondents observed that the health board model offered more flexibility to managers that could be exploited to enter into strategic contracting with the private for-profit providers. They emphasized the need for autonomy at the provider level for effective and efficient decision making. The merging of providers into the public service mainstream has introduced bureaucracies that could militate against effective contracting-out. Some managers argued that if providers are sufficiently funded and are given autonomy, contracting-out to private for-profit providers can still be successful under the current arrangements.

However, policymakers observed that the government, through the Ministry of Health, is developing a social health insurance scheme that presents a huge opportunity for contracting-out if well funded. Accordingly, institutions in both the public and private sectors will have to be accredited to qualify as providers under this scheme.

Performance assessments

As action plans are implemented, contractors follow up to assess the extent to which providers are abiding by the contractual agreements. The contracts provide for the following:

Quarterly Performance Audits. These service and quality control audits were and are intended to measure or assess the extent to which minimum standards in the provision of health care are maintained. They assess all aspects of service delivery, both in terms of clinical and nonclinical functions. These include the diagnosis, equipment, financial, and human resource factors as inputs into the process of service delivery. While the Central Board of Health system adhered to this provision, the Ministry of Health is not consistent with performance audits. All managers described the current audits as being very erratic and inconsistent, taking place only once or twice a year.

Quarterly Financial, Administrative, and Management Reports and Status. Financial performance as a basic input into the provision of health care is supposed to be assessed quarterly so as to gauge aspects relating to transparency, effectiveness, and efficacy of

resource use within designated priorities. Furthermore, adherence to financial and accounting systems is an aspect that is said be of significant focus in the assessment process and in monitoring of the contractual agreements.

Quality Assurance and Accreditation. It was explained that, initially, all forms of contracts—public to public and public to private—were intended to be overseen by the regulation of minimum standards that would be the benchmark for quality assurance. The standards would be used to assess contracted institutions, which would then be graded or accredited on the basis of the level of quality for funding and determination of the type of services the institutions or districts were able to provide. However, from the discussions and data collected, it is evident that this relatively useful and innovative approach has not been used extensively. Apart from the mission and mine facilities, very few private hospitals and clinics are accredited in Zambia.

8. Partnerships between the Public Sector and Private For-Profit Providers

In spite of the limited contracting arrangements between the public and private for-profit providers, partnerships have been developed among these players. The partnerships relate to curative and prevention programs for specific diseases. These are discussed below:

Partnerships specific to malaria, TB, and HIV/AIDS programs

The government has recognized the enormous potential that the private sector can contribute to case detection and treatment of TB, malaria, and HIV cases. These diseases are among the top 10 causes of mortality and morbidity in Zambia. In a bid to reduce the incidence and prevalence of these diseases, the government has entered into partnerships with the private for-profit providers and industrial hospitals. The main objective of the partnerships in curative services is to ensure that the private sector adheres to the national treatment guidelines by making appropriate health services accessible to all citizens.

In all cases, the treatment of TB is free in Zambia. One of the objectives of the National TB Programme is to ensure uninterrupted supply of quality-assured anti-TB drugs and laboratory reagents throughout the country for treatment of TB patients. To promote adherence and improve treatment outcomes, the four fixed-dose combinations has been introduced in all nine provinces and has been extended to some private for-profit health providers.

This arrangement is made possible through the anti-TB drug supplies that are secured through GDF by the Ministry of Health. In this partnership, the Ministry of Health gives free TB drugs to selected private for-profit and industrial health facilities. Under the partnerships, the contracted facilities are in turn supposed to provide free treatment to the public. They are supposed to charge consultancy fees only. According to the Ministry of Health and some respondents in private facilities, the private partners are supposed provide the government with information on the utilization of these drugs.

Regarding malaria, interviewees at the Ministry of Health stated in 2003 that the government revised the national malaria treatment policy. The aim of the policy is to provide access to more effective treatment for malaria. The new policy introduced the use of artemisinin-based combination therapy for uncomplicated malaria. The respondents further noted that the

recommended drug, artemether-lumefantrine, is too expensive for the private sector. To ensure that the treatment procedures are aligned in all sectors, the government has undertaken to provide free or subsidized drugs to the private sector.

Similarly, the government has provided the private sector with anti-retrovirals to scale up HIV and AIDS treatment in Zambia. Although this partnership has existed since 2007, the Ministry of Health started in 2008 the process of accrediting public and private health centers as "centers of excellence," through the Medical Council of Zambia (the health sector regulatory authority), to offer anti-retroviral services through the partnership. To qualify as a "centre of excellence," a facility must have qualified personnel, laboratory facilities, and sufficient and patient-friendly consulting space. In all these partnerships, information sharing is regarded as a critical component of these partnerships.

Limitations of the partnership design

During interviews, the private for-profit providers observed that although these partnerships exist, they do not cater to the needs of the poor.

First, the drugs are supplied only when the government has some stock. This implies that clients may not be able to access affordable services with persistent stock-outs. The unpredictability of supplies makes it difficult for the private sector to provide sustainable services through these partnerships. The representative of the private health practitioners of Zambia stated that the design of the partnerships does not take into account the true cost of treatment. For instance, while drugs are given for free, the representative explained, the consultancy fees in the private sector are quite high for the poor Zambian. This acts as a barrier to accessing private sector care.

Second, the partnerships do not provide for the reimbursement of implicit and hidden costs arising from diagnostic and laboratory services that the private practitioners incur when treating patients. Considering the high cost of these services, an average patient cannot afford to seek care from the private for-profit providers. With this limitation, the private sector ends up subsidizing the government and the poor clients, which is a disincentive to entering into these partnerships.

Although partnerships are emphasized in government policy documents, the private for-profit sector feels that very little or nothing is being done to translate them into tangible action. One of the managers observed that although the Medical Council of Zambia is authorized to register, monitor, and supervise the private practitioners, it does not have a clear accreditation criterion as obtaining in government facilities which are classified based on the type of services they are able to offer. Rather, the council is faced with unwarranted government intervention resulting in the influx and registration of unqualified medical personnel especially from the Far East. The lack of criteria and enforcement of standards make it difficult to enter into contracting with the government. It was also noted that information is lacking on the services that the private sector offers because the Medical Council of Zambia has no capacity to supervise and monitor services.

As one performance indicator, the private sector is supposed to provide the government with information about the patients and usage of the drugs. However, the government does not collect this information, and if it is provided, the Ministry of Health does not take that information in account. One of the managers stated, *"My facility compiles the relevant drugs*

use and patient information for MoH regarding the partnerships whenever we exhaust the supplies they give us. To my disappointment, government never collects the information and when given to them, they do not take it on board and keep complaining that the private sector is not cooperating."

In his view, less government interference and concern about the private sector has facilitated the sector's growth. Given this background, managers of private for-profits observed that a voucher system allowing private practitioners to claim fees (incurred by patients who cannot afford full payments) could be developed and managed by an independent body.

Partnerships in public health programs with companies

The government and the private sector, especially in the Copperbelt Province of Zambia, have a long history of partnerships in public health programs. The partnerships are mainly in prevention programs. These are discussed below.

Malaria and rabies prevention programs: Private mines provide technical and material support to the District Health Management Teams in the malaria control program. The Copperbelt Province has a long history of malaria control, practices since the early 1940s by the predecessor mining firms as essentially an economic and productivity enhancement measure to curb malaria-related morbidity, which had direct economic/financial and productivity-related effects. This led to private-public partnerships in public health control. This collaboration, although systematically and continuously undertaken, has not been formalized through any arrangement equivalent to an agreement or contract; rather, through the establishment of the District Health Boards, the contribution of the mining firms and health services were captured as partnership programs in work plans and budgets. Partners agree to meet some aspects of the prevention programs. For instance, indoor residual spraying, a malaria prevention program, is the biggest partnership. Under this partnership program, mines and District Health Management Teams unequally share residential areas or housing units that each party has to cover.[9] Based on past experiences, each party contributes funds to jointly procure chemicals sufficient to cover the housing units in the shared areas. In addition, both parties are involved in community education and sensitization about specific programs

Under these partnerships, mines are expected to train and provide protective clothing to the staff involved in the spraying. Mines also provide storage facilities for the equipment and chemicals that are used during the anti-malaria campaigns.

Promotion of partnerships with the private sector

The Ministry of Health has started to strengthen its relations with the private commercial sector as part of the overall investment strategy from the Cabinet Office. The initiative "Triangle of Hope" aims at increased investments in the health sector. Priority areas are high-tech medical services, manufacturing of pharmaceutical products, medical laboratory services, diagnostic services, repair and maintenance of medical equipment, laundry services to medical institutions, ambulance services, and human resources for health development.

[9] Based on the interviews, mines often cover a relatively larger number of housing units than the Ministry of Health covers.

Favorable tax incentives are being offered to attract investors. Accordingly, it is envisaged that the private sector will extend investment in specialized services that the government is not able to offer. It is estimated that the country spends an average of US$3 to 6 million per annum by referring patients to neighboring countries for specialized services. Thus, it is envisaged that the private facilities will enter into contracts with the government for these services.

9. Discussion, Conclusions, and Policy Implications

Discussion of the results

Following the reforms, the government adopted contracting-in as a policy strategy to enhance the efficiency of resource use at various levels of the public health care system. According to fund holders, the policy has improved the allocation of resources in the entire health system as the Basic Health Care Package defined the services that are offered at each level of care. Contracting-in has enabled the fund holders to contract with other public and mission hospitals to supply the services they cannot supply. The guidelines for contracting-in are well articulated by the principal purchaser. The study found that about 35 percent of resources in the public health system flow through the contracting-in process at various levels of the referral system.

The interviews revealed that the purchasing arrangement is riddled with uncertainty. Some respondents observed that contracts between the providers and the Ministry of Health resemble a loose memorandum of understanding with no penalties or strict, enforceable obligations for either party. Some of the District Health Management Teams and hospitals visited noted that contracts for 2007 were not signed by the Ministry of Health, contrary to the regulations. Furthermore, they are not funded according to the agreed-upon budgets and action plans. This failure by the principal to honor its obligations makes the relationship between the contracting mechanism on one hand as well as the budgetary and action planning development processes on the other a routine activity that has no policy consequences. This finding reinforces the earlier findings by Masiye and colleagues (2006), who observed that this undermines the role of the Ministry of Health as a purchaser.

According to the 2006 National Health Strategic Plan, the gradual increase in the number of for-profit and not-for-profit private health service providers presents significant policy implications with regard to their involvement in the delivery of public health services. Since the initiation of the reforms in 1991, the government has embraced the faith-based health care providers and they have been well integrated into the national health system. The incorporation of mission hospitals into the formal national health system through the memorandum of understanding with CHAZ, reinforced by contracting with mission hospitals, has expanded enhanced health service delivery. CHAZ noted that this partnership has improved the delivery of quality health care by the mission hospitals to the poor of the poorest in rural and remote areas. As observed in the study, mission hospitals are mainly rural and offer what is perceived to be holistic and the best quality of health care.

An important initial objective of the purchaser-provider split was the need to create and develop a functional internal market within the public health sector. In addition, the internal market was designed to strengthen the public-private partnership. From the analysis, there

appears to be minimal evidence that meaningful progress has been made toward achieving these two initial goals.

As a matter of fact, the dissolution of the boards, which led to the reversal of decentralization in the health system, appears to have worked against the initial objectives. For instance, the Ministry of Health currently functions as both a principal and agent by virtue of being a fund holder and service provider. This lack of legal separation between the Ministry of Health and District Health Management Teams and Hospital Management Teams dilutes the validity of the contractual arrangements and the accountability of the institutions. To this effect, some respondents observed that contracts are in some cases not signed, and the Ministry of Health does not conduct performance audits, partly undermining the essence of contracting.

Although the private for-profit health sector has been emphasized since 1991, very little has been done to formally integrate it into the health system. In areas with a large private sector presence, there is a lack of master planning to include all stakeholders. According to interviews with Ministry of Health officials, there is not yet a clear policy on how the government should work with the private sector in Zambia. This is contrary to the declaration that one of the target areas for action to achieve the Millennium Development Goals is the use of the private sector to expand access to health care. Governments must provide stewardship in overseeing their health systems by providing a clear vision and direction for health policy as well as regulation (Francisco A and S. Martin 2006)

Moreover, the accreditation procedure for private facilities to enter the referral system is not clear. This calls for the Ministry of Health to provide appropriate standards and guidelines to the private sector on acceptable levels of practice. Moreover, the Ministry of Health provides no incentives aimed at attracting the private sector to participate in the implementation of the Basic Health Care Package through the public health care delivery system. The reasons usually cited for this state of affairs include inadequate knowledge about the private sector by Ministry of Health policymakers; limited dialogue between the public and private stakeholders; and the lack of institutionalized policy instruments from the Ministry of Health for interacting with the private sector, especially in financing, regulation, and dissemination of information. Given this background, contracting with the private sector in Zambia has been limited to nonclinical services and laboratory services.

Although private and public providers treat each other with suspicion, they are willing to work together. On the subject of contracting, the District Health Management Teams observed that it would be more effective if they were given more autonomy and resources to enable them to purchase services from the private sector. Inadequate funding of public providers is perceived to be the major constraint to contracting-out. The private sector, on the other hand, recommended a voucher system that covers clients who are unable to pay through an insurance system.

The Ministry of Health, on the other hand, reached an advanced stage in developing a social health insurance scheme as a health financing mechanism. The scheme is expected to be extended to the private sector covering all citizens. Furthermore, the Ministry of Health is promoting investment in a wide range of potential contracting areas with the private for-profit providers in both clinical and nonclinical functions, including specialized medicine, training of human resources, and repair of medical equipment, among other functions.

Conclusions

Zambia's health delivery system takes a unique approach in terms of inter-linkages required to help provide the best health services to its population. So far, what is clear is that if fund holders are given autonomy and sufficient funding, there are no serious restrictions on the modes of contracting as long as particular desired services are provided. This kind of mechanism, once improved upon, will be able to cater to all classes of people.

Clearly, the modes of contracting on offer within the government, whereby the Ministry of Health subcontracts with its affiliates to provide health services, show the extent to which contracting-in is easy to establish and effect, thereby improving efficiency and allocation of resources. Because the Ministry of Health is the main contracting body, it has made it easy to coordinate services and monitor performance. In this arrangement, it is evident that a defaulting public contractee is given chance to improve or, where certain capacities are lacking, interventions have been undertaken to help enhance service delivery. This arrangement does not call for contract termination or penalizing the contractee once default is established, but correctional activities are instead advocated and, where lacking, capacity is built. Services are reviewed and improvements suggested.

The case of CHAZ has also presented a very pertinent example of how the public sector can work closely with the private not-for-profit sector to enhance health service delivery. As outlined above, CHAZ's affiliates are contracted on an institutional basis or through CHAZ itself. This kind of contracting is unique. The government deploys health personnel to CHAZ affiliates and pays for the services they provide, instead of CHAZ doing so. This model has worked well because, where the government has no representation in terms of infrastructure, CHAZ affiliates have, and where CHAZ affiliates lack certain manpower, the government provides up to 75 percent of the operations grant. This model has also helped outsourcing of resources where CHAZ affiliates are not restricted to source funds from their churches. Similarly, the case of CHAZ has also demonstrated that an umbrella structure and a buffer between the government and missions is preferable to hierarchical arrangements—allowing for a contractual relationship but independence as well.

As it has been already recognized, the contracting-out of clinical services to private for-profits is not common in Zambia. There is a limited amount of contracting-out in laboratory services. Informally, doctors have made referrals to and from public or government/private so their clients can access some specialized services. A few examples have worked well where private for-profit providers have contracted with each other to provide a particular service. The example of Ronald Ross and Malcom Watson Hospitals is a classic case. However, the original arrangement where these were both government-run facilities forms the backbone upon which this unique contracting model has worked. This, however, can be replicated within the private for-profit facilities. In addition, the role of private players in health provision is critical. It is therefore important that policymakers adjust and accommodate more roles to be being played by the private for-profit organizations.

Partnerships between the government and the private sector in the delivery of public health programs ranging from HIV/AIDs, TB immunizations, and malaria prevention have fared well. Combined with contracting arrangements with mission hospitals, these cases could be used as a launching pad to integrating the private for-profit providers into the health system.

Policy implications and recommendations

Contractual arrangements: There is a need to develop a framework in which a clear legal and administrative separation exists between providers and purchasers. This is essential to facilitate accountability among the purchasers and providers.

Paying providers: The system governing the budgeting, planning, and reporting needs of the contractual arrangement has to be integrated for purposes of service and management performance evaluation. Ultimately, this should form the basis for paying providers.

Development of policy guidelines: The private sector in Zambia had grown rapidly since reforms were implemented in 1991–1992. However, there is no legal and policy platform that provides for collaboration between the government and private for-profit providers. Considering the critical role that the private providers are playing, it is important that the government, together with the private providers, come up with a policy to guide collaboration and regulation.

Quality assurance and accreditation: All forms of contracting—public to public and public to private—were intended to be overseen by the regulation of minimum standards that would be the benchmark for quality assurance. These standards would be used to assess contracted institutions, which would then be graded or accredited on the basis of the level of quality for funding and determination of the type of services the institutions or districts were able to provide. It is recommended that regulatory authorities utilize this important mechanism, which has not been used so far.

Inventory of existing competencies in the private sector: According to the National Health Strategic Plan 2006–2010, the government is not aware of the services that the private sector provides that could form the basis of contracting or even partnerships. Thus, there is a need to undertake an inventory of the existing services and competencies in the private sector and ensure that District Health Management Teams and Provincial Health Offices include the activities and programs of the private for-profit providers in the district plans and eventually national plans.

Adequate funding of the fund holders: Contracting-out is largely constrained by inadequate funding as the fund holders may not refer patients to the private sector providers that require immediate payments. If contracting-out is to be considered, there is a need to adequately fund the providers or indeed establish an insurance system that can facilitate timely and adequate resource flow to enable providers deliver quality service.

Autonomy of providers/fund holders: The study shows that the contracting-in model based on the referral system can easily be extended to the private for-profit providers if only the fund holders are adequately financed and given the autonomy to purchase services strategically. Reliable funding and autonomy could give them the leverage needed to effectively negotiate with private for-profit providers and contract with them for services. Reducing the risk of default to the private sector can encourage it to take up contracts from semi-autonomous government fund holders by scaling up private sector participation.

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Appendix 1: Competency Requirements for Provision of the Basic Health Care Package

Health Post (HP) – The feature first level of contact with the formal health care system		
Planning Criteria:		**Services:**
Rural catchment area: 500 households (3,500 people) Physical access: 5-km. radius Staffing: Community Health Practitioner Urban catchment area: 1,000 households (10,000 people) Physical access: 5-km or 1 hour Staffing: Community Health Practitioner		HP package of care and outreach activities Initiating and supervising community-based health activities through CHW and TBA Referral to health center and district hospital

Rural Health Center (RHC)/**Urban Health Center** (UHC) - The present first level of contact with the formal health care system		
Planning Criteria:		**Services:**
Rural catchment area: 5,000–10,000 inhabitants Physical access: 30-km. radius Staffing: Health Practitioner (e.g., Clinical Officer, Nurse, Environmental Technologist) Urban catchment area: 30,000–50,000 inhabitants Physical access: 30-km. radius Staffing: Health Practitioner (e.g., Clinical Officer, Nurse, Environmental Technologist)		UHC/RHC package Normal deliveries Basic inpatient services (UHC, 30 beds; RHC, 10–12 beds) and emergency observation Referral to district hospital 24-hour service

District Hospital - First-level referral of care with inpatient and outpatient services within the main specialties (medicine, surgery, GYN/OBS, pediatrics)		
Planning Criteria:		**Services:**
On average: 1 district hospital with 100 to 200 beds per 80,000 to 200,000 inhabitants (1 bed/1,000) Staffing: Doctors, nurses, midwives, diagnostic health workers, etc.		OPD General surgery/obstetrics General medicine/pediatrics Basic laboratory and X-ray Emergency care Support functions Training and support for health centers Referral to general hospitals

General Hospital – Second-level referral of care with specialized medical care		
Planning Criteria:		**Services:**
On average: 1 general hospital with 200 to 250 beds per 200,000 to 800,000 inhabitants Staffing: Specialists, doctors, nurses, midwives, diagnostic health workers, etc.		OPD General surgery Gynecology/obstetrics Internal medicine/psychiatry Pediatrics Intensive care Emergency care Expanded laboratory and X-ray Support functions Training and support for level 1 hospitals Training: Nurses, medical students and clinical officers and others Referral to central hospitals

Central Hospital - Third-level referral of care with highly specialized medical care and teaching hospitals		
Planning Criteria:		**Services:**
On average: 1 central hospital with 300 to 800 beds per 800,000 or more inhabitants Staffing: Specialists, doctors, nurses, midwives, diagnostic health workers, etc.		OPD General surgery, incl. urology, orthopedics, etc. Gynecology/obstetrics Internal medicine, incl. TB, malaria, subspecialties Pediatrics Anesthesia (ICU), laboratory, and X-ray Emergency care Supportive functions Research, international collaboration Training and support for level 2 hospitals Training of doctors, medical students and clinical officers, nurses, and others

Appendix 2: Changes in Key Indicators at the Hospital Level

Level/Cost Item	Output Performance 2005		Output Performance 2007	
	Target	**Actual**	**Target**	**Actual**
Pediatrics Department				
Number of nurses		7		8
Number of doctors		1		1
Average length of stay		7		7
Bed occupancy rate		60%		61%
Cost per meal				
Surgery Department				
Number of nurses		17		17
Number of doctors		2		2
Average length of stay		10		10
Bed occupancy rate		51%		56%
Cost per meal				
Obstetrics/Gynecology Department				
Number of nurses		10		8
Number of doctors		1		1
Average length of stay		6		4
Bed occupancy rate		51%		47%
Cost per meal				

Appendix 3: Hospitals by Type, Ownership, and Location

Province	Facility Type	Private Hospitals	Public Hospitals	Mission Hospitals
Central Province	First-level hospital		Liteta Hospital Kapiri Mposhi Hospital Mkushi Hospital Mumbwa Hospital Serenje Hospital Chitambo Hospital	Nangoma Mission Hospital
	Second-level hospital		Kabwe Mine Hospital Kabwe General Hospital	
Copperbelt Province	First-level hospital	Sinozam Friendship Hospital Luanshya Hospital Konkola Mine Hospital	Thomson Hospital Kamuchanga District Hospital	Mpongwe Mission Hospital St. Theresa Mission Hospital
	Second-level hospital	Nchanga South Hospital Kalulushi Mine Hospital Melcom Watson Hospital Wusakile Mine Hospital	Nchanga North General Hospital Roan Antelope Hospital Ronal Ross General Hospital	
	Third-level hospital		Arthur Davison Hospital Kitwe Central Hospital Ndola Central Hospital	
Eastern Province	First-level hospital		Chama Hospital Lundazi District Hospital Nyimba Hospital Petauke District Hospital	Mwami Mission Hospital Kamoto Mission Hospital Miinga Mission Hospital Nyanje Mission Hospital
	Second-level hospital		Chipata General Hospital	St. Francis Hospital
Luapula Province	First-level hospital		Kawambwa District Hospital	Mbereshi Mission Hospital St. Paul's Hospital Kasaba Mission Hospital Lubwe

				Mission Hospital
	Second-level hospital		Mansa General Hospital	
	Third-level hospital			
Lusaka Province	First-level hospital	Pearl of Health Mini Hospital**Lusaka Trust Hospital Villa Hospital Teba Mini Hospital Zambia Helpers Society Hospital Victoria Hospital Coptic Hospital Care for Business Hospital Hilltop Hospital St. Johns Hospital Trust Hospital of Lusaka West View Medical Centre Premium Medical Services Minicare Medical Centre	Kafue District Hospital	Mpanshya Mission Hospital Katondwe Hospital
	Third-level hospital		Chainama Mental Hospital University Teaching Hospital	
Northern Province	First-level hospital		Chinsali Hospital Isoka District Hospital Luwingu District Hospital Mpika District Hospital Mporokoso Hospital	Chilonga Mission Hospital
	Second-level hospital		Kasama General Hospital Mbala General Hospital	
North-Western Province	First-level hospital		Kabompo District Hospital Mufumbwe Hospital Mwinilunga District Hospital	Chavuma Mission Hospital Loloma Mission Hospital Kalene Hospital Luwi Hospital

			Zambezi District Hospital	Chitokoloki Mission Hospital
	Second-level hospital		Solwezi General Hospital	Mukinge Mission Hospital
Southern Province	First-level hospital	Shafiq Hospital	Choma Hospital Gwembe Hospital Itezhi-tezhi Hospital Kalomo District Hospital Batoka Hospital Kafue Gorge Hospital Mazabuka District Hospital Namwala Hospital Siavonga Hospital Maamba Hospital	Macha Mission Hospital Zimba Mission Hospital Chikankata Mission Hospital Mtendere Mission Hospital
	Second-level hospital		Livingstone General Hospital	Monze Mission Hospital
Western Province	First-level hospital		Kalabo District Hospital Kaoma District Hospital Luena Camp Hospital Lukulu District Hospital Senanga District Hospital Yeta Hospital Shang'ombo	Yuka Mission Hospital Luampa Mission Mangango Mission Hospital Sichili Mission Hospital Mwandi Hospital
	Second-level hospital		Lewanika General Hospital	