



Uganda Health Sector and Partnership Opportunities

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Preface

The Ugandan health care sector is diverse, with many actors, different levels of services in urban and rural areas etc. Though there are no user fees for public health care, out-of-pocket payments account for approximately 50% of total health expenditure, indicating that the private sector is well developed. The public health care budget is relatively low, and the government encourages shared financing, such as private hospital wings and PPPs. The private-not-for-profit organizations are important service providers, especially in the rural areas. Focus has been on communicable diseases; however, non-communicable diseases are on the rise, resulting in increased challenges for the health care sector. The health care sector is thus undergoing important changes, giving rise to potential business opportunities in various areas.

The overall objective of this study is to give a general overview of the Ugandan health care sector and the various actors and segments that it consists of. The report also identifies opportunities as well as challenges for cooperation and business in Uganda for Swedish actors within the Ugandan health care sector, and aims to provide input on how to best meet these opportunities, and to create long-term cooperation and partnerships.

The study has been commissioned by Swecare Foundation, as part of the Sida-funded pilot project *How Networks within the Health Sector can contribute to Development Cooperation*, under the Business for Development (B4D) program. Swecare Foundation was founded in 1978 by the Swedish government and the health care industry together as a semi-governmental non-profit organization, in order to increase the internationalization of the Swedish health care sector. We create meeting places and open doors between actors. Swecare's network consists of more than 300 Swedish companies and organizations from various parts of the health care sector.

The pilot project aims to contribute to poverty alleviation and improved living conditions for poor people through creating new platforms for activities to create awareness for opportunities in health care and life sciences in developing countries; and to enhance and develop cooperation between Swedish health sector actors (public, private and academia) and actors in developing markets.



Maria Helling,
Swecare Foundation

1. Executive Summary

1.1 Objective and structure of the report

This study aims at contributing to a better understanding of the business environment within the healthcare and life science sector in Uganda, focusing on linkages between the private and public sectors and rural and urban areas. The objectives of the study are to provide a general overview of the Ugandan healthcare system, analyse health sector development trends, and investigate existing and future business opportunities from a Swedish perspective.

Chapter 2 provides a brief background on Uganda's political and economic context, including its business environment. Chapter 3 focuses on the disease burden and trends and addresses how Uganda manages prevention, treatment and care of both infectious and chronic diseases. Chapter 4 gives an overview of the health sector, describing the building blocks and the main actors. Chapter 5 lists and highlights selected areas where business and partnership opportunities are considered to be greatest. Finally, Chapter 6 discusses risks and challenges.

Data and facts on disease burden and the structure of the health sector have been collected mainly from publications from the Ministry of Health, Multilateral agencies and other large donor agencies. In addition, discussions and interviews have been held with officials, managers and health sector staff to verify facts and compile views on the main trends, risks and challenges. Generally, statistics and facts regarding non-communicable diseases are not compiled and displayed officially in Uganda; in this area the available sources have been WHO, news articles and persons interviewed.

1.2 Main findings

There are plenty of business and partnership opportunities in the Ugandan health sector. The private sector is well developed and provides for 50% of service delivery outputs. A handful of private hospitals and larger clinics in Kampala are planning to expand in order to better meet the demand for services related to an increasing prevalence of non-communicable diseases, in particular cardiovascular diseases and cancer. The public sector also plans to expand and the national Mulago Hospital, Uganda Cancer Institute and Uganda Heart Institute are in urgent need of assistance in developing their services.

However, resources are scarce in Uganda. Uganda's annual GDP per capita is 487 USD, and Out Of Pocket financing is currently about 50% of the total health expenditure. The government contributes only one fourth of health financing, equivalent to the contribution of the donors. The high share of Out Of Pocket financing in Uganda, where consultations and drugs are free in the public sector, indicates that people prefer or are driven to private sector service providers. People are willing to pay, but the overall economic situation for most Ugandans will not allow them to be able to pay for more expensive drugs or treatments. Private insurance contributes to less than 1 % of the total health expenditure, but with a

growing formal labour market, private insurance providers are also increasing rapidly. In addition, the Ugandan economy has grown 6-10 % annually over the past decade, which implies that there is a growing middle class in the country.

1.2.1 Communicable and non-communicable diseases

Over the past decade, the government and the donors have been primarily active in the area of communicable diseases and the system is more developed to prevent, detect and treat related health problems. Moreover, resources are available for communicable disease initiatives, and there are many partners already involved in innovation, research and development. This attention on communicable diseases, the continuing challenges in communicable disease control and prevention, and Uganda's strong focus on its health-related MDGs has created a market, demand and thus opportunities for investment in this area. Family planning, maternal health and HIV/AIDS are also the areas where the Swedish Embassy is engaged, and channels and connections have already been established. Research, governance and management within the health sector are also identified as areas where Sweden is involved and more partnerships would enhance efforts.

The area of non-communicable disease is still unexplored and comprises the sector with the greatest need of assistance, research, innovation, and solutions across primary, secondary and tertiary care. Cancer is normally detected at a very late stage and cancer care in Uganda is concentrated to a few hospitals in Kampala. Cardiovascular diseases are also on the rise and the health care system (whether public or private) is not prepared to meet the demand for services, especially not the design of prevention strategies. In these two areas, there is a market for equipment and supplies, more research and innovation, training of specialists, nurses and engineers and, of course, development of diagnostic centres and laboratories.

1.2.2 Tertiary care

Tertiary care in general is also an area for business and partnership opportunities. The estimated 150 million USD that is annually spent on referrals abroad could be used in the country if strategic initiatives were developed. Specific bottlenecks include the training of specialists and teams and the provision of adequate facilities and equipment. There is also a need for innovative solutions and management training, improvement of the referral systems, and strengthening of administrative capacity at all levels, especially in the public sector. Furthermore, the study identifies disability, infection control and mitigation of antibiotic resistance as areas in urgent need of partnerships.

1.2.3 Medicines, supplies and equipment

The public health sector is decentralized but medicines and medical products are procured centrally by the governmental agency National Medical Stores. Purchase of equipment and furniture in public facilities are coordinated and assessed by a unit at the Ministry of Health, but procured by the individual districts or hospitals. Drugs, supplies, and equipment in the private sector are either purchased through Joint Medical Stores, which is owned by faith-based, private-not-for-profit organizations, or through donor programme channels. All

stakeholders interviewed expressed interest in Swedish products, provided that they are affordable for clients and facilities.

1.2.4 Business climate

Time is ripe for new partnerships and business relations in the Ugandan health sector. The business environment is relatively supportive, and the economic and political situation is stable enough to provide favourable conditions for long-term relationships. The health sector has developed quickly over the past five years, especially the private sector. Trends imply that a demand for specialist care and high quality treatment will grow as prevalence of non-communicable diseases increases. In this process, relationships with foreign partners will be essential.

When donors in Uganda agreed to harmonize aid to the country through a division of labour, Sweden decided to focus on health, research, private sector development and governance. Successful partnerships between Swedish and Ugandan actors within the health sector could probably cut across all areas in which the Swedish Embassy is already involved. A recently founded Sweden Uganda Business Association may also facilitate interventions. Moreover, there are several stakeholders, high officials, business people, medical doctors, midwives, and technical engineers who are eager to start forming new business relationships and long-term partnerships.

2. Uganda – background and country facts

2.1 Uganda at a glance

The Republic of Uganda is a landlocked East African country, north of Lake Victoria with borders to Kenya, Tanzania, Rwanda, Burundi, Democratic Republic of Congo and South Sudan. The country has a violent past that still affects the way of living, the design of institutions and societal structure, but is today one of the most peaceful and beautiful countries in Central and East Africa.

Uganda was colonized by Britain and gained independence in 1962. The first general elections established a democratic republic and the following years were marked by power struggles and conflicts, escalating into cruel oppression in the early 1970s during Idi Amin's era. Amin's rule of terror lasted for seven years until Uganda was invaded by the Tanzanian army but internal conflicts were not ended. The ex-minister of defence, and current President, Yoweri Museveni started a guerrilla movement, National Resistance Movement, which fought against the government's rule for almost a decade. In 1986, when the National Resistance Movement entered Kampala, the soldiers were celebrated by the people and Museveni became Uganda's new President. A few months later, he banned political parties.

New resistance movements emerged, among them the Lord's Resistance Army, LRA, fighting the new government. A civil war broke out and ravaged the country until 2006, when a combination of peace negotiations, military pressure and support from the US, pressed back the LRA. There have been no LRA attacks in Uganda since 2006. The two suicide attacks in Kampala in 2010 were carried out by Al-Shabab, a Somali terrorist group protesting against Uganda's military involvement in peace-keeping troops in Somalia. Thus, the major threat to people's security is not internal anymore, but external.

However, the decades of civil war and unrest have left deep scars in the Ugandan society and peace is essential to Ugandans. Yoweri Museveni has ruled the country since 1986 and continues to get the majority of the votes in each presidential election despite the fact that the voters are critical to his restrictions of democracy.

(Afrobarometer 2012) Museveni brought peace to Uganda after centuries of conflicts. The country became a multiparty democracy as late as 2005, and is still not considered as a full-fledged democracy. Uganda's democracy is partly free, only reaching 4.5 (on a scale 1-7 where 7 is completely free) in the Freedom House's surveys, due to elections being marked by irregularities and a party financing system and power concentration that limit strong opposition. Press freedom has also been restricted the past few years with continual detentions of journalists and closings of radio stations.

Uganda's governance indicators are generally low in the World Bank's measurements of governance, see Figure 1. Political stability is low but improving after the end of the civil war.



Corruption is still permeating Ugandan society and public administration and government effectiveness is low. Uganda’s highest governance indicators are found in the regulatory quality and Rule of Law, which is improving steadily which reflects the President’s responsiveness to the international society, including United Nations, World Bank and IMF.

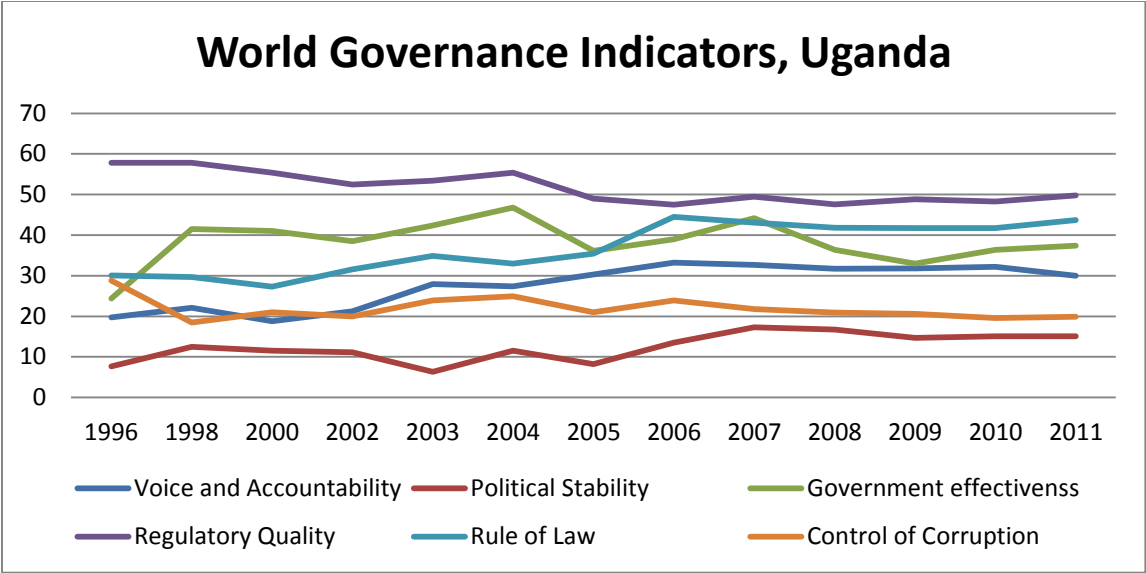


Figure 1. World Governance Indicators, WGI, Uganda, 2011. World Bank. Accessed May 2013.

The Ugandan population is young, poor and growing fast. The population is estimated to have reached 34.8 million people in July 2013. (CIA 2013) Worldwide, Uganda is the leading country with the youngest population of 78 % below the age of 30 years, 52 % is 15 years and below. The vast majority, 85 %, still lives in the rural areas. Most of them are self-employed or unemployed family workers, 75-85 % of the Ugandan women work in the agricultural sector, most of them unpaid. (UBOS 2012) Around 40 % of the population lives on less than 1.25 USD a day, according to World Bank data. The incidence of poverty remains highest in the Northern region and least in the Central region. There are around 40 ethnic groups in Uganda, with different languages and dialects. English and Swahili are the official languages. Luganda, the language of the Baganda people, is also widely spoken.

2.2 Financial Stability and Business Environment

Considering that Uganda is among the poorest countries in the world, the ease of doing business is fairly high. President Museveni has been determined to transform Uganda’s economy into a modern economy and introduced reforms in accordance with IMF guidelines in the 1990ies. The economy has continued to grow and has expanded at rates between 6 and 10 percent per year over the past ten years and is projected to continue high the coming years. The private sector remains the engine for productivity, investment, and growth. The financial sector is relatively well developed, consisting of a range of formal, semiformal and informal institutions. Uganda continues to attract more foreign direct investment than many other countries in the region and the FDI net inflow reached nearly 800 million USD in 2011. Imports of goods and services reached 34.5 % of GDP in 2011 and have increased substantially every year the past eight years. (WB data)

Uganda is diversifying its productive base. Manufacturing has become more substantial, and many state-owned enterprises have been privatized. Tariff barriers have been eased, although non-tariff barriers still constrain overall trade freedom. Yet the service industries now make up the lion’s share of economic activity. Government also encourages public-private partnerships in the implementation of the National Development Plan, including health sector.

Nevertheless, inflation tends to be difficult to control, as in many African countries. Inflation rates varied between 4 and 8 % between 2003 and 2007, increased to 8-12 % the three following years and peaked in 2011, the election year, with 18.7 %. CPI inflation 2012 and 2013 was, and is projected to stay around 15%. Access to financial services also remains problematic, especially in rural areas. Only 4 million people hold bank accounts, representing as little as 33% of the 12 million people who are potentially bank clients. (AfDB 2012) The government is currently implementing a two-faceted approach to financial-sector reform, aimed at consolidating banking stability and facilitating financial deepening. The major policies include deregulation of financial services, strengthening of regulatory and supervisory frameworks, and the development of money and capital markets.

Uganda ranks 120 among 185 countries in ease of doing business in 2013 Doing Business Report. Only eight Southern and Western African countries have higher ranking. See Figure 2 for Uganda’s ranking in key indicators. One barrier to the growth of the private health sector is that in order to start a business, it takes on average 34 days, encompassing 15 procedures, and at a cost of 85 percent of the average Ugandan’s annual per capita income.

	Global ranking (out of 185)
Starting a business	144
Dealing with construction permits	118
Getting electricity	127
Registering property	124
Getting credit	40
Protecting investors	139
Paying taxes	93
Trading across borders	159
Enforcing contracts	117
Resolving insolvency	69

Figure 2. Uganda’s global ranking in Doing Business Report 2013. World Bank and IFC.

Uganda has improved its scores significantly in the Doing Business Report the past eight years and in 2013 Index of Economic Freedom, Uganda ranks 79 and scores 61.1 on the scale from 0 to 100 where 100 is maximum economic freedom (Heritage 2013), which is also high in the African context. Uganda is ranked 8th out of 46 countries in the Sub-Saharan region. There is no minimum capital requirement to establish a business. Top income tax and corporate tax rates are 30 percent. Other taxes include a VAT and property tax. The trade-weighted average tariff is relatively high at 8.2 % and non-tariff barriers do constrain trade freedom. However, foreign investment is allowed in most sectors.

The main obstacles to private sector development stem from conditions due to Uganda's low GDP, weak tax base and poor infrastructure. In the Enterprise Survey made in 2006, the enterprises considered that the main obstacle to running an enterprise is electricity problems (63%). The second problem was tax rates (10%). (BoU et.al. 2012) Electricity has improved essentially since 2006. Government institutions are however still weak and bureaucratic. Ugandan judiciary is inefficient with property rights and contract remediation suffers from weak institutional support. Corruption is prevalent. Labour regulations are relatively flexible, but a well-functioning labour market is not fully developed.

Even if Uganda is landlocked, the location of the country is considered by many businesses and international organizations to be the gateway to the Central African countries. Uganda is politically and economically stable enough to establish operations that can reach out to South Sudan, Rwanda, Burundi and Democratic Republic of Congo. People living in the border areas also tend to travel to Uganda to seek health care and health related products. UN is for example developing the logistic hub in Entebbe, Uganda, providing and supplying the UN peace-keeping missions in the above countries. These supplies sometimes contain medical products and other health related supplies.

2.3 Trade agreements

Uganda is one of 19 members in COMESA, the Common Market for Eastern and Southern Africa. COMESA is a free trade area that was formed in December 1994 and has gradually developed and since 2008 includes the two other African trade blocs, the East African Community and Southern African Development Community. COMESA is one of the pillars of the African Economic Community.

The East African Community (EAC) is an intergovernmental organization comprising five countries in East Africa: Burundi, Kenya, Rwanda, Tanzania and Uganda. In 2010, the EAC launched its own common market for goods, labour and capital within the region, with the goal of a common currency and eventually a full political federation. The Ugandan president Mr. Museveni is promoting East African integration and is currently chairing the EAC summit. He recently urged the EAC partners to “fully implement the treaty by removing all the non-tariff barriers and we head for integration,” (Daily Monitor 2013b) To date, the EAC has achieved the protocol of customs union, common market and they are now headed to implementing the protocol of monetary union, which seeks to have a single currency for the five partner states.

A Swedish-Ugandan Business Association (SUBA) was launched in November 2012 with the objective of creating a major business linkage and source on business information for trade and investment between Uganda and Sweden. SUBA aims at encouraging trade and investment between Sweden and Uganda by promoting business and investment prospects and opportunities available in both countries. For contact and more information, see www.suba.or.ug.

Sweden and Uganda has not yet agreed on avoidance of double taxation.

3. The Health Situation in Uganda

As most low-income countries, Uganda faces a heavy disease burden due to poverty. The critical health determinants constitute strong risk factors in Uganda. The fertility rate is among the highest in the world, 32.5 % of the population lives without proper latrines, discrimination against women is rife, the average schooling rate is 4.7 years for adults, and urbanization is rapid with growing slums. 39 % of the population in the rural areas lives further than 2 kilometres from a water source.

Although most indicators mentioned above are improving, development is slow and interventions in the health sector are necessary. According to the 2010 Millennium Development Goals Progress Report, Uganda is on track to achieve the MDG targets of halving poverty and significant progress has been made in improving access to HIV/AIDS treatment and access to safe water. On



the other hand, progress has been slow for the goals related to child and maternal mortality, access to reproductive health services, and control of malaria and other communicable diseases. Uganda lags behind to achieve the MDG on maternal mortality. (GoU 2010b)

The two decades of civil unrest, beginning in the early 1970s have had a negative impact on health in Uganda, both on indices and on the health system. Since then, the health indicators have improved, yet Uganda remains among the countries with the heaviest disease burden. Life expectancy in Uganda is 54 years. Only 20 countries in the world have shorter life expectancy. Population growth also continues to be very high in Uganda, significantly higher than the regional average, and has remained high for over six decades.

	Uganda	Sub-Saharan Africa, avg	Low Income Countries, avg
Population growth, annual	3,2	2,5	2,1
Rural population as % of total population	84,4	63,5	72,0
Fertility rate, total (births per woman)	6,1	4,9	4,0
Contraceptive prevalence rate, % of women ages 15-49	30	24,5**	91
Mortality rate, infant (per 1000 live births)	69,3	57,9	62,8
Maternal mortality ratio (per 100 000 live births)	500*	310*	410*

Figure 3. Selected Indicators Uganda. World Bank data. *2010, **2009. Accessed May 2013.

According to WHO's estimates in 2011, the communicable, maternal, perinatal and nutritional conditions account for 70 % of the mortality causes, see Figure 4. Non-communicable diseases, account for 25 %.

3.1 Communicable diseases

The infectious diseases in Uganda, which includes malaria, tuberculosis (TB) and HIV/AIDS, account for 54 % of the total burden of disease. (MoH 2010a) Except from HIV/AIDS, the indicators of the prevalence of infectious diseases are improving. This is the area where the donor-funded programmes are focused and where health education, public resources and policies are directed. Government implements national programmes, funded by donors, and results are followed up in WHO's reports on Malaria, TB and HIV/AIDS. Research programmes exist in cooperation with foreign institutions. However, continued innovation, improvement and new partnerships are still needed in the area, in particular in awareness-rising and prevention, management in health care system and supply chains, for smart and affordable supplies and equipment, and for human resources both in numbers and in training.

Infection Control is generally a problem in the health care facilities in Uganda. The Ministry of Health regards Infection Control to be important and the Health Sector Strategy and Investment Plan ensures that the issue is addressed in 2012/2013. Infection control standards will be developed, disseminated and implemented in all hospitals and Health Centre IVs.

3.1.1 Malaria

Malaria is by far the leading cause of mortality in Uganda, accounting for 37% of all deaths and contributes to 50 percent of the outpatient burden. (MU et.al 2012) In most parts of Uganda, temperature and rainfall are sufficient to allow a stable, year round malaria transmission at high levels with relatively small seasonal variability. Between 70,000 and 100,000 deaths per year are estimated to occur among children under five years of age, and between 10 and 12 million clinical cases are treated in the public health system (MoH 2010a).

98% of the facilities offer clinical diagnosis or treatment of malaria, but only 60 % offer confirmed diagnosis, i.e. blood testing. (MoH 2010a) Since Uganda is among the countries with the highest percentage of population at risk, the number of deaths caused by malaria remains among the highest in Eastern and Southern Africa.(WHO 2012b)

The National Malaria Control Program focuses on prompt case management using Artemisinin combination therapy for uncomplicated malaria, injectable Artesunate/Quinine for severe malaria, Long Lasting Insecticide Treated Mosquito Nets (LLINs), Indoor Residual

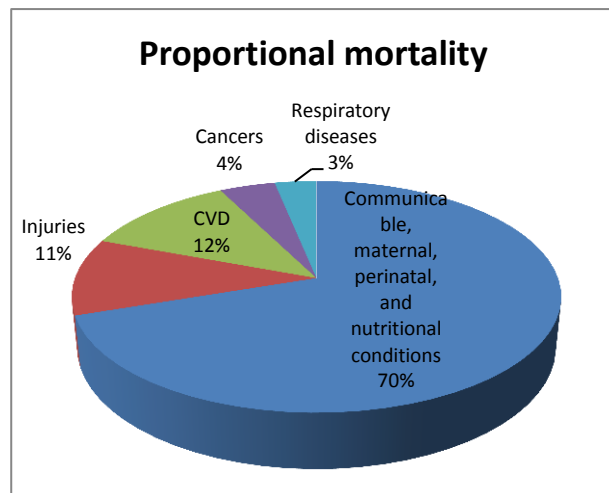


Figure 4. Proportional mortality as % of total deaths, all ages. WHO (2011) NCD Country Profiles Uganda 2011

Spraying (IRS) and Intermittent Protective Treatment of Malaria in Pregnancy (IPTp). Findings show a positive trend in all the lead malaria program indicators but Uganda Demographic and Health Survey 2011 as well as assessment on the progress towards the MDGs, find that progress is slow. (GoU 2010b) Community utilization of the malaria interventions e.g. sleeping under Insecticide Treated Nets (ITNs), and uptake of IPT2 are still very low. The proportions of children under five and pregnant women sleeping under an ITN are currently 32 percent and 42 percent respectively. Prompt treatment of malaria is also still low. Also, increasing resistance to commonly used treatments remains a serious challenge to malaria control.

3.1.2 Tuberculosis, TB

WHO considers Uganda to be among the 22 TB high-burden countries in the world, even if the prevalence rate, 193 cases per 100 000 population, is quite low in comparison with other Southern African countries. The trend is steady downward since 1991 when the rate reached 444. Other Southern African countries are struggling with significantly higher incidences, see Figure 5.

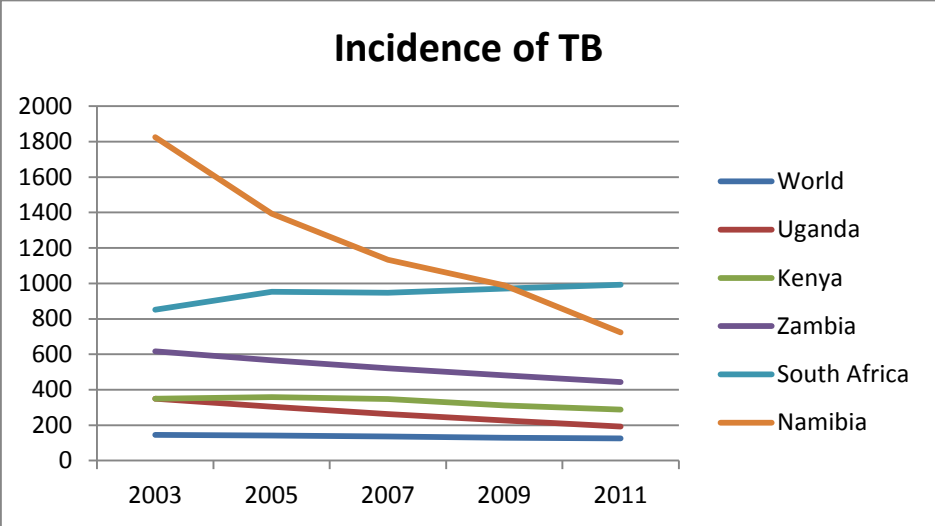


Figure 5. Incidence of Tuberculosis (per 100 000 people) in selected countries. 2011. World Bank Data. Accessed 2013.

Despite the positive trend, the detection rate remains low, and reached 69 per 100 000 population in 2011. The TB situation is complicated by an HIV/AIDS co-infection rate of 60 percent among TB patients. (MU et al 2012) The smear-positive tuberculosis, TSR, was estimated at 70 percent, below the WHO-recommended 85 percent. It is clear that diagnosis and treatment need further improvement.

Decentralized TB care called Community Based Directly Observed Treatment, CB DOT, has been expanded to all districts. Within the programme, patients are directly observed and monitored by health workers when taking the drugs daily. Challenges however remain: under staffing, lack of laboratory equipment, weaknesses surrounding community mobilization, a high HIV prevalence, and emerging drug resistant TB, prevent even higher detection and cure rates. The cure rate target is at 85% globally which has not been achieved in Uganda – it is

still at 73%. The government claims that there is a need to consolidate the provision of CB DOTs, operationalize the public-private mix for TB control, strengthen laboratory capacity, and to integrate TB control in the District health system. (MoH 2010a)

Service availability and readiness for TB is fairly low in Uganda. 45 % of the public health facilities offer TB services, and even fewer facilities offer diagnosis and treatment. Only 65 % of the facilities have microscopy and all first-line medications. Almost half of the facilities have at least one trained staff in TB infection control. (MoH 2012a)

3.1.3 HIV/AIDS

Uganda has the last decade had a low prevalence of HIV/AIDS in comparison with many other Southern African countries, but the prevalence rate has increased the past two years. For people aged 15–49 years the prevalence rate estimated at 6.5 % in 2009 increased to 7.4 % in 2011 (MoH 2012a). Uganda has approximately 1.2 million people living with HIV and 124 000 new infections a year. HIV prevalence is higher among women (8.3%) than men (6.1%) and is also higher in the urban areas. There is no clear reason for the increase, but the Ministry of Health claims that this might be due to less emphasis on primary prevention at district level. However, the awareness of HIV/AIDS and how to prevent transmission is growing steadily. Two surveys in 2011 prove that 100% of the respondents are aware of HIV/AIDS and most Ugandans know that the risk of getting HIV can be reduced by using condoms and limiting sex to one partner. (UBOS 2012) Contraceptive use increased from 24 % in 2006 to 30 % in 2011.

Infectious Diseases Institute is a specialized institute at the Makerere University that offers prevention, care and treatment services in the field of HIV/AIDS and hosts large research programmes and conducts training. IDI is funded by US governmental agencies, EU, Gates foundation etc. and is the prime stakeholder in AIDS/HIV treatment, care and research.

<http://www.idi-makerere.com/>

The cause of the increase might rather be found in the increase of people tested the past year. Close to nine million people (7 396 939 women and 1 355 140 men) were counselled and tested for HIV during 2011/2012. This is a very large increase of number of people being tested, in the two previous years 2.2 and 2.9 million people were tested. The results would indicate that there is an urgent need for expanded testing.

By June 2012, 615 000 patients were estimated to be eligible for antiretroviral therapy (ART) while 375 000 persons were already enrolled on ART. (IDI 2013) Access to a comprehensive range of HIV/AIDS care services is still limited to the higher levels of care. Two-thirds of the facilities offer HIV care and support services, with varying content. ART services are scarcer. Only 25 % of the facilities offer ARV prescription or ARV treatment follow-up. Almost half of the public health facilities implement Prevention Mother to Child Treatment with a higher coverage on hospital and Health Centre IV levels. After two decades of increased access to and time on ART, there has been more frequent development of drug resistance and subsequent treatment failure on first line ART.

3.1.4 Diarrhoea

Acute diarrhoea still accounts for 2.6 % of the mortality causes for children under five years old although the prevalence has been reduced. The results in the Uganda Demographic and Health Survey 2011 demonstrate that the percentage of children under 5 years with diarrhoea in the two weeks preceding the survey was 23%. Half of the under-five children with diarrhoea are given Oral Rehydration Therapy. The use of zinc supplement is extremely low at 1.9%

The Ministry has approved reclassification of Zinc treatment for diarrhoea from prescription only to over the counter medicine. Partners and stakeholders signed up to a pledge that committed them to support to abolish diarrhoea deaths using Zinc, during a visit by the US ex-president Bill Clinton. An implementation framework aimed at harmonizing approaches for the Prevention-Promotion-Treatment (PPT) of Diarrheal and Pneumonia has been developed.

3.2 Mother and Child Health

The mortality indicators among mothers, infants and children improved the last decade but remain relatively high. The country is still a long way from achieving the MDGs, as can be seen in Figure 6. Sweden’s maternal mortality ratio is 4 per 100 000 live births.

	2003	2007	2011	Target by 2015
Mortality rate, infant (per 1000 live births)	77.3	67.3	57.9	31
Mortality rate, under 5 (per 1000 live births)	124.9	106.6	89.9	56
Immunization, measles (% of children ages 12-23 months)	64	75	75	-
Maternal mortality ratio (per 100 000 live births)	505	420*	310**	131
Births attended by skilled health staff (% of total)		41.9***	57.4	100

Figure 6. Maternal and child health indicators, Uganda. World Bank data. *2005, **2010, ***2006. Accessed May 2013.

3.2.1 Maternal health

The high levels of maternal mortality in Uganda are attributed to high fertility, high incidence of infectious diseases, poverty and poor health services for pregnant women. Women often report to the hospitals too late in their labour process. Specific challenges in addressing maternal health problems include inadequate funding; lack of skilled health workers is the underlying cause in 38 % of the maternal death

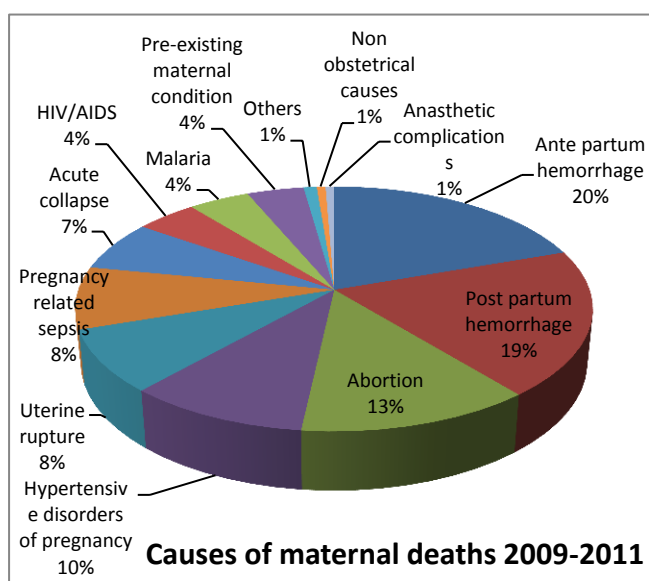


Figure 7. Causes of death, maternal mortality 2009-2011. Uganda Health System Assessment 2011. MU (2012)

cases, lack of medicines and supplies, inadequate transport, and lack of communication equipment for referral. One third of the cases of maternal deaths were due to delay of the woman seeking help, lack of partner support, herbal medication or refusal of treatment or transfer to higher facility. (MU 2012)

Not even 50 % of the pregnant women visit a health care facility for antenatal care four times during her pregnancy even if three-fourths of the health facilities provide antenatal care. Only 58 % of the births are attended by skilled health personnel. The causes of maternal deaths are displayed in Figure 7.

Accessibility to comprehensive maternal care is extremely low. Approximately 6 in 10 hospitals provide blood transfusion and caesarean section and very few health centres provide these services, giving an overall percentage of 7 % of facilities providing comprehensive care. Availability of priority medicines for mothers is also low overall. Only 4 in 10 facilities have injectable oxytocin and sodium chloride to treat postpartum haemorrhage and even fewer facilities have injectable magnesium sulphate for treatment of eclampsia.

Safe delivery vouchers entitle mothers to antenatal visits, attended child birth, and postnatal check-up visit, at an affordable price. Service providers are trained and certified to be able to provide services included in the treatment package at a predetermined quality.

Innovative health financing schemes exist to improve equity and access, including results-based financing initiatives. Noteworthy is the voucher pilot program run by Marie Stopes Uganda (with initial funding from the German Development Bank, KfW, and continued funding from the World Bank, DfID, Sida, and others). Vouchers, a form of demand-side financing, subsidize recipients for specified services and in Uganda have increased use of family planning and safe motherhood services among the poor. The programme is now being discussed to be expanded.

3.2.2 Child health

Progress in immunization of children under one year against measles is demonstrated, which can be attributed to the mass measles and polio campaign that took place during 2011/12. The percentage of children under one year immunized with DPT3 and measles was 85% and 89% respectively. (MoH 2012a) Uganda has also registered some progress in the reduction of under-five mortality rates. The government reports an improvement in most indicators concerning child health, but still in 2011, only 52% of the children

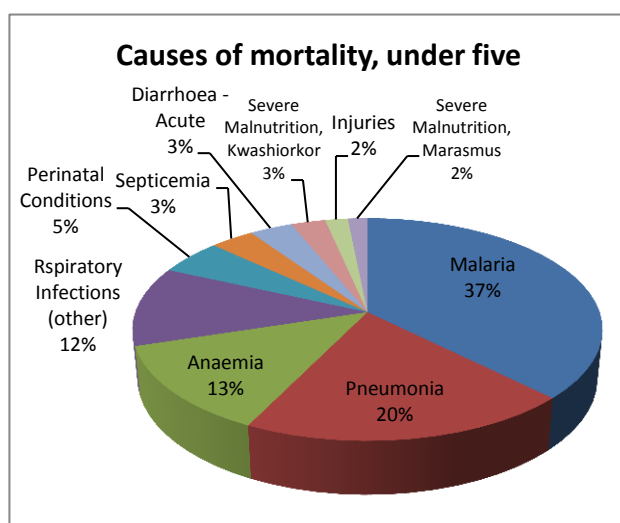


Figure 8. Proportional causes of mortality among children under five years. Uganda Health System assessment. Makerere University et al. (2012)

12-23 months were fully immunized. The absolute majority of the public health facilities provided routine immunization for measles, DTP-HiB-HepB, polio and BCG but vaccines stock-outs are common. Out of 10 tracer items, only two of ten facilities had all items in 2012. Access to electricity comprises a bottleneck and a challenge to most facilities. Only seven of ten facilities had a functioning refrigerator for the storage of vaccines on the day of assessment. 96 % had a cold box with ice packs. (MoH 2012a)

3.2.3 Family planning

Stakeholders indicate that challenges to delivering reproductive health services in the country include lack of demand for family planning and reproductive health services, limited human resources, poor access in certain areas, poor remuneration of public service providers (contributing to low performance and understaffing), and poor housing for health workers at health facilities. (MU 2012) Nevertheless, the Uganda Demography and Health Survey in 2011 showed a substantial increase from 24.5 % to 30 % in contraceptive use. The government claims that this was mainly due to the family planning revitalization strategies that have been put in place including all the innovative interventions, namely, outreaches, franchises, Family Planning Vouchers, and integration of family planning into other services. Female sterilization and implants are mainly provided by the public sector whereas injectables are mainly provided by the private sector. Male condom distribution is mainly from other sources and equally distributed by the public and the private sector.

3.3 Life-style Related Problems

The non-communicable diseases, NCDs, such as diabetes mellitus, cardiovascular diseases, chronic respiratory diseases and some forms of cancer are increasing in Uganda. The increase in NCDs is claimed to be attributed to multiple factors such as adoption of unhealthy lifestyles, increasing ageing population and metabolic side effects resulting from lifelong antiretroviral treatment. (MoH 2012a) However, attention to the increase is recent and the health system has not yet started to collect adequate data on prevalence, rise and forms of diseases within the NCDs. According to Health Sector Strategic & Investment Plan, the Ministry of Health is currently upgrading the NCD Unit that plans to conduct a national survey in order to collect data on the magnitude of NCDs, prevalence of risk factors and capacity of existing health facilities to prevent and control.

Health facilities at all levels are conducting treatment and care for individual NCD conditions. However, it is clear that there are insufficient numbers of adequately trained health workers and equipment to provide NCD screening, early diagnosis and treatment services. Appropriate screening and diagnostic equipment is not generally available at the health facilities and there is an insufficient supply of medicines and supplies for treating NCDs. (MoH 2010a)

The only available data in the Sector Performance Report of the public health sector is the number of new patients visiting public health facilities for hypertension and diabetes which are displayed in Figure 9.

	2008/2009	2009/2010	2010/2011	2011/2012
Hypertension, number of patients	185 864	190 065	200 221	192 059
Diabetes Mellitus	81 420	75 066	86 010	92 875

Figure 9. Number of hypertension and diabetes patients 2008-2012. Annual Sector Performance Report 2011/2012. MoH (2012)

Hypertension patients account for 0.6 % of total out-patients and diabetes patients for 0.2- 0.3 %. Yet, these numbers do not fully reflect the prevalence of hypertension and diabetes since the patients in the private sector are not included in the statistics. There might be a higher prevalence in the urban areas where the private health providers are mainly located. The Minister of Health claimed for example in 2012 that there are 2 million people living with diabetes in Uganda, basing the numbers on a Ministry of Health report and “expert opinion”. (Chimpreports 2012)

3.3.1 Cardiovascular

As displayed in figure 4, 12 % of the proportional mortality is caused by cardiovascular diseases (CVDs). It is generally acknowledged and noted that the numbers are on the rise. In Mulago Hospital there has been an increase in cases of ischaemic heart disease from 1.8% out patient in 2002 to 7% in 2009. Hypertension is the leading cardiovascular disease accounting for over 50% of all cases seen annually. The Ministry of Health claims that people in low- and middle-income countries are more exposed to risk factors leading to CVDs and other non-communicable diseases and are less exposed to prevention measures than people in high-income countries. The Ministry of Health announces further that priority will be given to creating awareness about CVDs, improving access to prevention and treatment and ensuring that data is available for informing programming. (MoH 2010a)

At the Regional Referral Hospitals and general hospitals, CVD health care services are being provided by specialist physicians and medical officers respectively. However, it is only the Ugandan Heart Institute that has the equipment, skilled personnel and facilities for advanced treatment and surgery. The Uganda Heart Institute, an institution within the public National Referral Mulago Hospital, has seen a 500 % increase in outpatient attendance between 2002 and 2009, due to an upgrading of equipment and facilities. (MoH webpage) The Uganda Heart Institute became an autonomous body under the MoH in 2009 and is mandated to provide super-specialized tertiary cardiovascular and chest surgical care. It is reported that the Institute has operated on 128 major heart surgeries and catheterization lab procedures since last year when the institute started carrying out catheterization procedures. Out of 128 patients with heart defects 26 were children. (New Vision 2013a)

Other hospitals, private and public, either refer their patients to the Heart Institute, abroad, or coordinate efforts to pool resources and patients to weeks and months when a Ugandan heart surgeon normally based in the UK, visits Kampala to help out. (Dr. Brian, CEO Nakasero Hospital) The private sector has presented plans to open a catheterization laboratory in Kampala, but was denied by the government to initiate plans.

3.3.2. Obesity

Overweight and obesity is a growing challenge in Uganda and the health sector is not yet prepared to prevent and treat obesity. According to WHO, 3.8 % of the men and 4.7 % of the women suffered from obesity in 2008. 19.9 % of the total population suffered from overweight. The mean body mass index has increased since 1980, and in particular women's body mass index has a very steep increase. (WHO 2011) The figures comply with research that also found obesity to be more common in Kampala than in the rural areas. (Baalwa et al 2011) Residing in the city, alcohol consumption, smoking, non-engagement in sports activities, commuting to school by taxi or private vehicle and being from a rich family were the main factors significantly associated with obesity. (Ibid)

Although obesity is on the rise, it is not often mentioned by the public stakeholders as a main challenge in the Ugandan health sector. Obesity is not mentioned once either in the National Health Sector Strategic & Investment Plan 2010/2011 – 2014/2015 or in the Health Sector Performance Report. However, the two large private hospitals do notice an increase in both obesity and overweight-related diseases. International Hospital of Kampala is currently starting up a “wellness-centre” specifically directed at diagnosing and consultations on life-style related diseases see chapter 5, International Medical Group, page 52.

3.3.3 Cancer

There is a steady rise in the number of Ugandans suffering from various forms of cancer, according to the management at the only referral cancer hospital in Uganda, Uganda Cancer Institute. The number of cancer patients increased from 1200 to 2800 in three years with over 60% of the patients presenting advanced cases of cancer. (The Independent 2013a) The most dramatic increase in cancers has been noted in cancers associated with HIV such as Kaposi's sarcoma, Non-Hodgkin's lymphoma, Carcinoma of the cervix, and Squamous cell carcinoma of the conjunctiva. Kaposi sarcoma accounts for about 80% of all male cancer. Cervical cancer is the commonest cancer in females and the incidence has increased tremendously, accounting for 30% of bed occupancy in the gynaecological wards at Mulago Hospital. (MoH 2010a) Cancer patients seen by UCI are generally very young; the average breast-cancer patient is 35 years old and the average cervical cancer patient is 25 years old. (Victoria, UCI) Over 70 % of people who turn up at UCI are diagnosed with cancers which are in the fourth stage.

Private hospitals also receive patients that are being diagnosed with cancer, but there is no statistics regarding cancer care in the private sector. Cancer patients in the private sector, and those with a private health insurance, are generally referred abroad. In May 2013, there was no Linear Accelerator in use in the country and only one cobalt machine.

3.4 Disability

There is no available official data on the prevalence of forms of disabilities in Uganda. However, there is a perception among the associations of disabled persons in Uganda that the

number of persons with disabilities is increasing. (Independent 2013b) This is confirmed by the Uganda Demographic and Household Surveys of 2006 and 2011 that present the numbers at 7 and 16% respectively.

It is highly acknowledged in Uganda that the vulnerability of Persons with Disabilities, PWDs, is enhanced by societal attitudes. In the National Policy on Disability in Uganda that was adopted in 2006, it is stated that these attitudes arise “from fear, ignorance, superstitions, neglect and lack of awareness.” The policy recognizes that as a result, PWDs have inadequate access to services, information, resources as well as limited participation in the socio-economic development process. Consequently, the majority depend on their families and communities for survival. PWDs are often of low priority in society. They receive less education, skills training and medical attention, which reduces their employment opportunities and may even result in secondary disabilities and sometimes early death. (MoGLSD 2006)



The government commits itself to improve access to disability management programmes, but the efforts are not being followed up in the performance report. NGOs working with persons with disabilities claim that there is no developed system for rehabilitation or care of PWDs within the public system. The Ministry of Health notes that only 2 % of the PWDs have access to rehabilitation services. (MoH 2010a) Uganda has adopted community based rehabilitation as the main strategy to reach PWDs with rehabilitation. In the 2002 Uganda Demographic and Health Survey, the most commonly observed disabilities were loss and limited use of limbs 35.3%, spine injuries 22.3%, hearing difficulties 15.1%, seeing difficulties 6.7%, difficulty in speech and conveying messages 3.9%, mental retardation 3.6% mental illness 3.6% and others at 9.6%. The Northern Region had the highest rate incidence of disability rate which of course is due to the decades of conflict in the area.

3.5 Mental Health

Mental health is a major health problem in Uganda contributing with 13 % to the national disease burden. Butabika Hospital is the only national referral mental health hospital. In 2008/09, 2,707 patients were first time admissions while 3,341 were re-admissions. About 75 % of attendances at Mental Health clinics have some form of neurological problem, commonly epilepsy, with cases of dementia on the increase especially among persons living with HIV/AIDS. Six Regional Mental Health Units at the Regional Referral Hospitals have been constructed and there are plans underway for expansion. The implementation of mental health programmes is hampered by inadequate staffing, resource allocation and the lack of mental health drugs at the health facilities. (MoH 2010a)

4. Overview of the Health Sector in Uganda

The main features of the Ugandan health sector are the following:

- 44 % of all health facilities are privately owned and the private sector provide for more than 50 % of the output, i.e. the services delivered.
- Primary care provided by public facilities is decentralized to district level which implies that decisions regarding General Hospitals and Health Centres are taken locally.
- Public health care is underfinanced and government contribution to health is low while out-of-pocket-spending is high.
- Private insurances contribute with less than 1 % of the Total Health Expenditure, but the number of Ugandans with private insurances is increasing with a growing formal labour market.
- 60 % of the imported medicines and supplies are procured through the private sector, donor's procurement agencies or directly by Ministry of Health. 40% is procured by the governmental National Medical Stores.
- Resources and human resources within health care are concentrated to the Central region. More than 70 % of the medical doctors, dentists and pharmacists work in the Central region, while only hosting 27 % of the population.
- Private sector is also concentrated to the Central region. 70 % of the private health facilities are located there. Primary care facilities in the rural area are mainly publicly owned or by private-not-for-profit providers.

4.1 Health Governance

Within the public sector, there are multiple actors that provide services; the Ministries of Health, Local Governments, Defence, Internal Affairs, and Gender, Labour and Social Development. The Ministry of Health coordinates and governs the various actors and provide oversight. Figure 10 depicts the organizational structure of the Ministry of Health, and includes a complete list of those institutions and councils that work with the Ministry to govern and regulate the sector.

National Level Institutions

- National Drug Authority
- National Medical Stores
- Uganda Health Research Organization
- Uganda Virus Research Institute
- Uganda Cancer Institute
- Uganda Heart Institute
- National Referral Hospitals
- National Blood Transfusion Services
- National Public Health Laboratory Services
- National Chemotherapeutic Research Laboratory

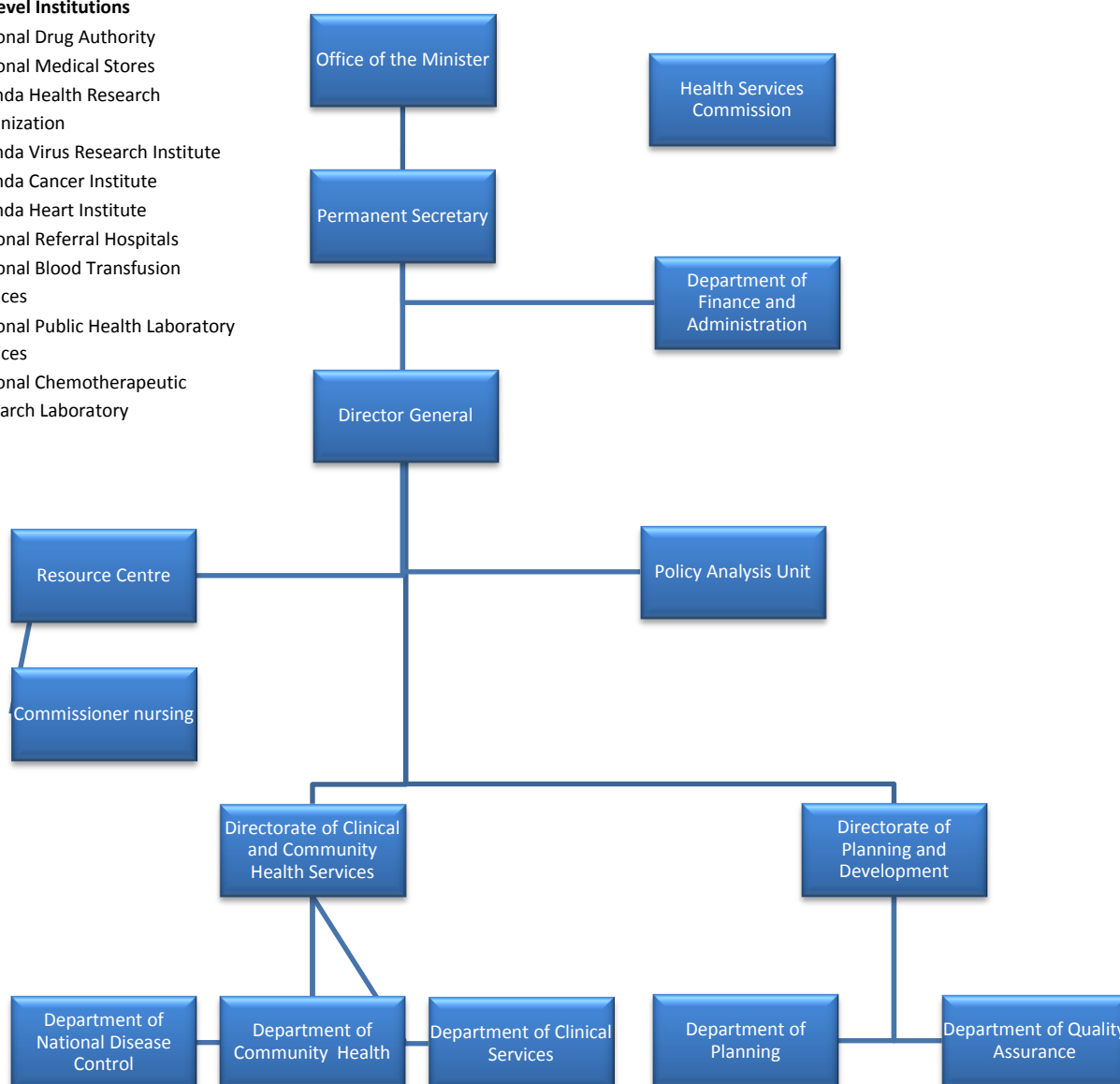


Figure 10. Organization chart for the Ministry of Health. Uganda Health System Assessment 2011. MU 2012.

The public health care delivery system in Uganda is organized in tiers, where the Village Health Teams/Health Centres I, II, III and IV and the General Hospitals form the frontline and primary care, the Regional Referral Hospitals secondary care and the National Referral Hospitals and specialized institutes of cancer and heart, form tertiary care. The national and regional referral hospitals are semi-autonomous institutions, while the district health services and general hospitals are managed by the local governments. The structure of the Ugandan health system, population served, and numbers of facilities are compiled in figure 11.

Type of facility	Physical Structure and Services	Clinical staff	Location	Population served: standard	Population served: current	No of Facilities: Public	No of Facilities: Private Not for Profit	No of Facilities : Private For Profit	Total
Health Centre I	None	N/A	Village	1,000	N/A	N/A	N/A	N/A	
Health Centre II	Stand-alone facility, outpatient services, preventive	Nurse	Parish	5,000	14,940	1,560	480	964	3,006
Health Centre III	Inpatient facilities (maternity and general ward) and laboratory	Clinical officer	Sub-County	20,000	84,507	832	226	24	1,082
Health Centre IV	Outpatient and inpatient services,	Doctor	County	100,000	187,500	12	1	177	190
General Hospitals	Hospital, laboratory and x-ray	Doctor	District	500,000	263,157	64	56	9	129
Regional Referral Hospitals	Specialist services: psychiatry, ear, nose and throat, ophthalmology, dentistry, intensive care, radiology, pathology, higher level surgical and medical services.	Doctor, Specialists	Region	3,000,000	2,307,692				
National Referral Hospitals	Advanced Tertiary care	Doctor, Specialists	National	10,000,000	30,000,000				
Total						2,470	763	1,174	4,407

Figure 11. Structure, characteristics, and size of the health care service delivery system. Uganda Health System Assessment 2011. MU 2012

An assessment made in 2012 listed 4,407 health facilities in the country of which 2,470 are governmental. (MU 2012) The private sector, comprising privately owned hospitals and clinics and facilities owned by faith-based organisations (mainly churches), Private Not for Profit Health Providers, PNFs, owned together 44 % of the facilities in 2012. Of the 64 public hospitals, 3 are National Referral Hospitals and 13 are Regional Referral Hospitals. A handful of the private hospitals in Kampala are providing tertiary care.

4.1.1 Decentralization

Public primary care is decentralized in Uganda. The decisions regarding development of 99% of the public health facilities were transferred to the local level in 1995. The local governments appoint and deploy public servants, including health workers, within the districts through the District Service Committees. The local governments also plan for and oversee service delivery within the districts. The number of districts grew from 56 in 2000 to 112 by the end of 2010. The decentralization has entailed several initial deficiencies that hamper the development of the health sector and to some extent complicate partnerships and long-term planning. However, due to limited resources in primary care and weak administrative capacity, procurement of drugs and medical supplies was recentralized and larger investment are in fact also determined centrally. Normally, partnerships are coordinated and MoUs are signed centrally even if the programme is directed and implemented locally.

A recent assessment, as well as the annual sector performance reports, proves that the districts suffer from severe capacity constraints, limiting the effectiveness of decentralized service delivery. (MoH 2010a) Especially newly formed districts do not reach the targets. The referral system has also deteriorated and is almost non-existing according to various stakeholders. Furthermore, supervision and monitoring of local health providers is non-efficient. The Ministry of Health has discussed a proposal of a regional management structure. Government representatives, private practitioners and hospital officials call for assistance in developing management systems in order to improve local service delivery as well as the referral system.

Sida supports a six-year programme in order to strengthen the capacity for planning and leadership in the Ministry of Health. The programme is also developing a planning structure on the regional level in Fort Portal and Arua. The aim is to develop a pilot that can be extended to more regions.

Around 50% of the public health budget is allocated to the local governments, earmarked for health care. The proportion seems to demonstrate a downward trend while the headquarters in the financial reports have lately received a greater share of the public resources designated for health. There are specific provisions for reimbursing for the wage and non-wage recurrent expenses at local level. Capital investment needs are assessed and paid on the basis of special technical appraisals. The Ministry of Health recognizes that the allocations to the local governments are inadequate to effectively deliver the minimum package of health care and this is exacerbated by delays in financial disbursement to districts and lower levels. A Fiscal

Decentralization Strategy exist, which allows districts to reallocate a certain percentage of the recurrent grant to priority areas in any sector but interviews reveal that the allocations are earmarked to 80-90 % which gives minimal flexibility for budget adjustments to local needs. Ministry of Health has initiated a reform to allocate funds within the health sector based on a new need-based resource allocation formula which is expected to be rolled out in 2013/2014.

4.1.2 Policies and regulations

Interventions, investments and programmes within the health sector are guided by the revised, and second, National Health Policy and the Health Sector Strategic and Investment Plan 2010/2011-2014/2015 (HSSIP) which in turn are linked to, and informed by, the overall National Development Plan 2010/11–2014/15. The overall goal for the health sector is universal coverage and health for all people. The core initiative to achieve this goal is the delivery of the Uganda National Minimum Health Care Package (UNMHCP) in which essential services and medicines are determined to be available, accessible and affordable to all people. Consultations and medicines are free of cost at public health facilities. The focus over the next five years will give priority to strengthening of health systems and implementation of programs of national interest which is reproductive health and child survival, HIV/AIDS and TB, malaria and nutrition. Both plans recognize the private sector as an important partner in achieving the aims.

The Ministry of Health coordinates the drafting of bills to promote and regulate health services. The government has established policy analysis units to support sectors in this area and according to stakeholders, policies and regulations are generally in place, but it is the funding and implementation that is lacking. (Several interviews and MU 2012) The National Development Plan confirms this statement and describes weaknesses in the capacity of some regulatory bodies and their limited ability to enforce regulations and policies.

Recently, the Government of Uganda signed a Compact with donors to support the implementation of the Health Sector Strategic & Investment Plan 2010/11–2014/15. The Compact is a commitment of all parties (the Government and donors) towards supporting the national goals and implementation of the HSSIP. This is in addition to existing bilateral agreements and arrangements with partners supporting health programs, and is intended to promote policy dialogue, joint planning, and effective implementation and monitoring of the HSSIP. The four critical investments that are prioritized in the HSSIP are: a) Human Resources for Health b) Health Infrastructure Investment, c) Medical Products Investments, and d) Management Support Investments.

The National Policy on Public-Private Partnership in Health was approved by the cabinet on 7th March 2013. The rationale for a PPP policy in Health is that “on-going reforms in the health sector seek to improve equity, access, efficiency, quality and sustainability of health care. This requires capacity building and resources. Developing strong and supportive partnerships with private health sector organizations and providers will accelerate the attainment of these objectives.” (GoU 2013) The policy does not offer new regulations or guidance to the private sector on the benefits of closer cooperation with the public sector. The

aim is rather to pool private and public resources locally, and in the sector of training, to improve efficiency.

4.1.3 Donors' influence

In Uganda, as well as in many other developing countries, the donor agencies have a significant influence on health system performance. 27 % of the total health expenditure is external funds, according to World Bank data, but including the off-budget support, the total sum of external funds will estimate to 50 % of overall health spending. (MoH 2010a) There are two types of financial support to the health sector; on-budget support and off-budget. The latter implies that the grants are not channelled through the normal governmental systems. Since a corruption scandal in 2005, most donors channel grants through off-budget financing, usually to international agencies for implementing projects directly at the district level. 60-65 % of the international funds directed at health in Uganda are off-budget. (Ibid)

Most donor funding is directed at either management system development or communicable diseases, mother/child health and family planning. USAID and the US President's Emergency Plan for AIDS Relief, PEPFAR, are by far the largest contributors to the Ugandan health sector accounting for more than 50% of the on-budget and off-budget support. GAVI and Global Fund are also significant actors contributing with the second largest shares, supporting health system strengthening, vaccines and interventions towards HIV/AIDS, TB and Malaria. While USAID and PEPFAR channel all grants through off-budget financing, GAVI, Global Fund, African Development Bank and WHO tend to support the health sector with on-budget support. The difference implies that procurement is more likely to be done by the governmental body National Medical Stores if on-budget support and made by the implementing organization if off-budget.

Sida's contribution to the Ugandan health sector in 2011/2012 amounted to 5,105,300 USD of which the main part was invested in HIV/AIDS related programmes. Almost 2 million USD supported maternal health programmes in various districts and close to one million dollars was directed at management improvements at the Ministry of Health and the referral functions of Fort Portal and Arua Regional Referral Hospitals. Sweden is also an active member of donor coordination within health.

4.2 Health Financing

According to WHO database, the total expenditure on health, as of % of GDP, has increased in Uganda from 5.8 % in 1995 to 9.5 % in 2011. This is high in comparison to other Low Income Countries, but as seen in Figure 12, the public share of the total health expenditure is low in comparison, the government only contributing with 26.3 %.

	Uganda	Sub-Saharan Africa	Low Income countries	World
Total expenditure on health as % of GDP	9.5	6,5	5,8	10,1
Public expenditure on health as % of total health expenditure	26.3	45,1	37,8	59,7
Health expenditure per capita (current USD)	42	95,0	31,6	949.7
Out of pocket expenditure as % of private expenditure on health	64.8	67,0	74,6	69,1
GNI per capita PPP (current international \$)	1,310	2,240	1,372	11,569

Figure 12. Health financing indicators 2011. World Bank Data. Accessed May 2013.

Only 8 % of the Ugandan National Budget 2013/14 is allocated to health. (Daily Monitor 2013c) This is far short of the Abuja target¹ of 15 percent. The Health Sector Performance Report of 2011/2012 reports a decline over the years from 9.6% in 2009/10 to 8.3% in 2011/12.(MoH 2012) World Bank indicators also confirm the mild interest in public contribution to health, figure 13.

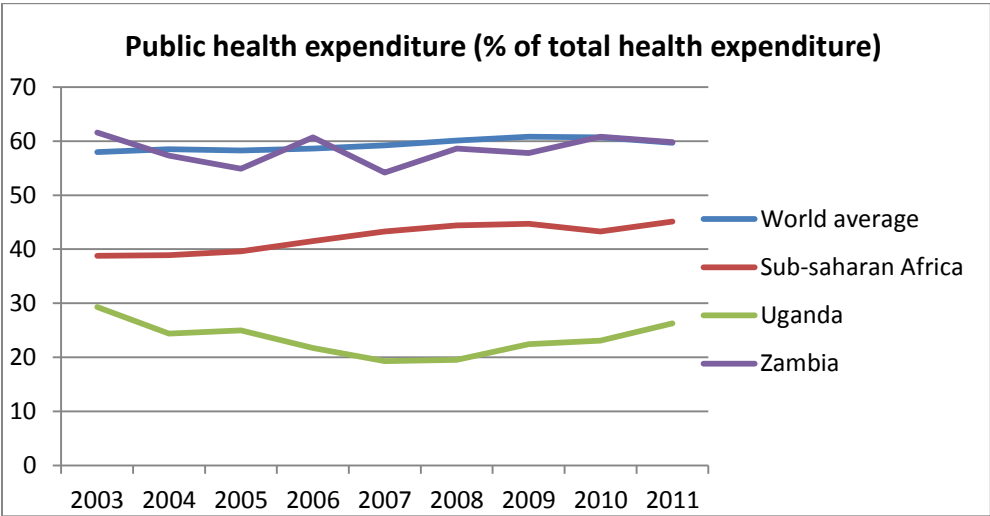


Figure 13. Health expenditure, public, % of THE. 2003-2011. World Bank Data. Accessed May 2013.

In addition to government spending, the overall health financing system in Uganda includes certain expenditures on health made by other ministries, as well as a number of private sources such as contributions from donors, Out Of Pocket payments by individuals and households, and private insurance. Figure 14 shows an increase the past decade of all sources, including government funding. However, inflation rates should be taken into account. Stakeholders, both private and public, consider the health sector to have entered stagnation.

¹ The Heads of States of the Organization of African Unity met in Abuja, Nigeria in 2001, where they signed a declaration on HIV/AIDS, TB and other infectious diseases and committed to government spending on health.

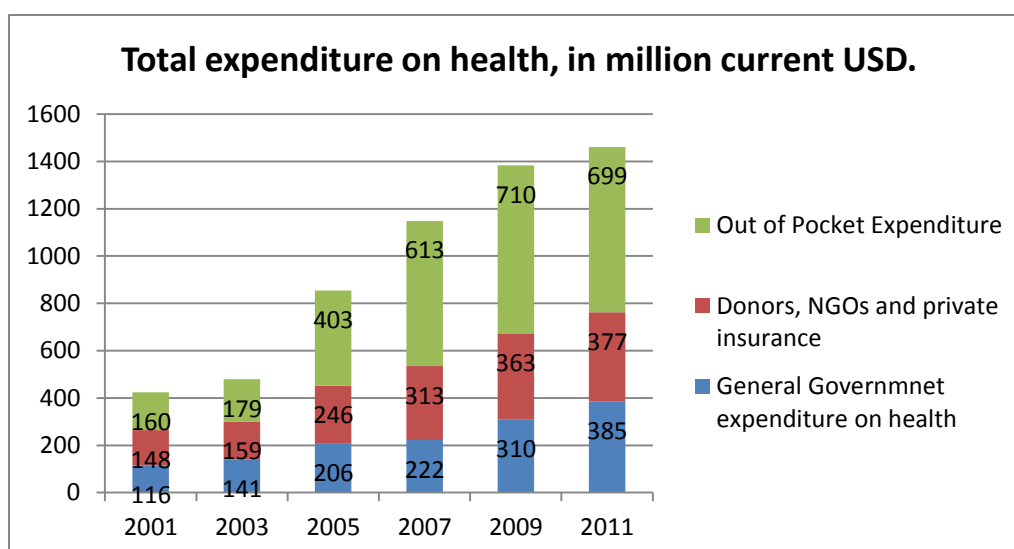


Figure 14. Total Health Expenditure Uganda 2001-2011. WHO Global Health Expenditure Database. Accessed May 2013.

The share of private insurances is not even reaching 1% of the total private expenditure on health. Uganda also lacks social health insurance schemes, although it is currently at the agenda of the policy dialogue (see section 4.3). Households are the major source of health financing in Uganda, contributing about 50 percent. Households' spending includes purchasing drugs and supplies, informal payments at public facilities, payment for imaging, laboratory costs etc., and user fees paid at Private Health Providers and PNFP facilities. Out of Pocket expenditure is high in Uganda, although not higher than in other Sub-Saharan countries as shown in figure 12, but since visits to public health facilities and drugs prescribed by medical personnel at public facilities are free of costs for individuals, OOP is remarkably high in Uganda. It is claimed that 75 % of all Ugandans' out-of-pocket spending on healthcare goes to the private sector. (The Observer 2012)

To minimize the effects of Out Of Pocket expenditures, government abolished user fees in all public facilities in 2001. However, studies showed that over one-fourth of households reported incurring health expenditures of catastrophic proportions. A majority of these households represented the lowest income quintile. Evidence suggests that increased private expenditure on drugs and hospital/clinic fees somewhat offset the marginal impact of the abolition of user fees on Out Of Pocket expenditures by households (Okwero et al. 2010).

4.3 Health Insurance in Uganda

Plans to introduce a National Social Health Insurance Scheme have been under discussion for some time. The scheme is planned to initially include those employed in the formal public sector where contributions are deducted from the payroll. Later it will be expanded to those with regular employment in the private sector, and finally to those in the informal sector who can afford to subscribe. It is not clear when the scheme will be introduced as there has been some resistance from employers and trade unions. High officials at the Ministry of Health claim that the proposal is currently under consideration at the Ministry of Finance and is ready to be launched. (Ezati, MoH). However, there are doubts about the health system having the

ability and resources to administer a national health insurance since it requires administrative capacity. (SSengooba, MU) In addition, the scheme will not make an impact until the informal sector is included since the number of civil servants only estimates to 300 000 persons and employers in the private sector are more likely to rely on private insurances. (Opio, JMS)

Private commercial health insurance arrangements exist and altogether constitute less than 1 percent of total health expenditures. The private health insurances are largely subsidized by employers on behalf of employees and are generally available to those working for banks, telephone companies, and other larger corporations. The insurances have quite high premiums that are unaffordable to many, especially in the rural areas. Nevertheless, with economic growth in the country and a growth of middle class, private insurances are on the rise, see figure 15. Private practitioners foresee an even larger demand in the future. (Sean Clarke, IMG and Dr Brian, Nakasero Hospital) Private wings of the public hospitals also experience a rise in the demand of health services that are covered by private insurances. (Dr. Matuvo, Mulago Hospital)

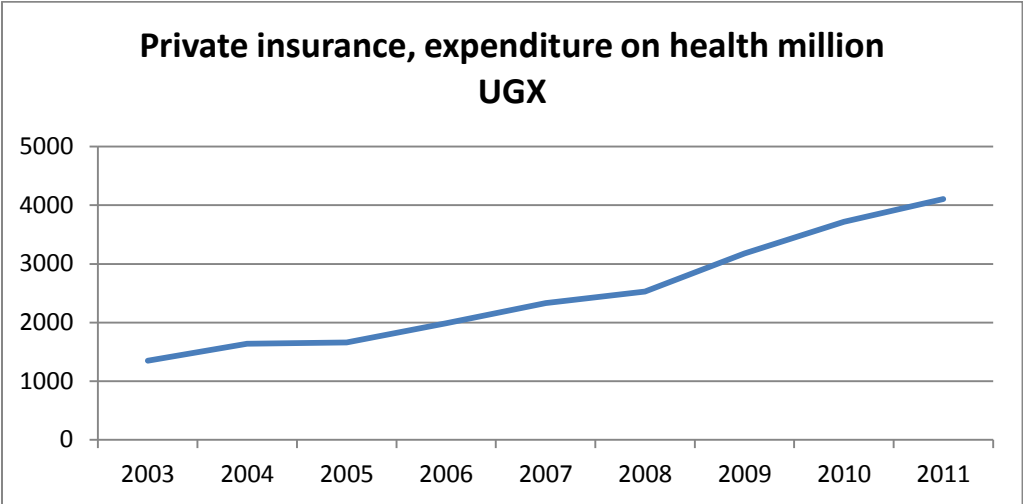


Figure 15. Private insurance, expenditure on health, million UGX. 2003-2011 Uganda. WHO Global Health Expenditure Database. Accessed May 2013.

The most recent study of the market of private insurances, made in 2007, found 19 licensed insurance companies in the country. (Zikusoka et al 2008) In addition to standard health insurance firms, there were, and still are, private service providers that offer medical pre-payment schemes. These organizations have a dual role that involves the collection of insurance premiums from individuals and/or companies on one hand, and the actual provision of health services to those who are medically insured on the other. It is not clear how many private providers are offering such pre-payment schemes, but International Medical Group is most probable the largest private health provider offering both health services and insurance with approximately 50 000 policyholders. Nakasero Hospital plans to initiate a similar arrangement with insurance.

There are also over 15 community-based health insurance schemes in Uganda. These are coordinated by the umbrella organization Uganda Community Based Health Financing Association and overseen by the Ministry of Health. Most of the current schemes are hospital-based (owned and managed by the hospitals, e.g. Mutolere, Nyakibale, Ishaka SDA, and Kisiizi hospitals) and are small in terms of population coverage. One study finds that households pay premiums are too low to make community-based health insurance schemes sustainable and viable. The government assertion of “free” health care services also makes scale-up of community health financing less feasible. (MU 2012)

4.4 Human Resources

The shortage of human resources in the health care sector is severe. Only 58 % of the total norm of positions was filled in 2012, see Figure 16.

	No. Of Units	Total Norms	% Filled
Mulago Hospital	1	2,801	87%
Butabika Hospital	1	424	93%
Regional Referral Hospitals	13	4,331	72%
General Hospitals	47	7,980	61%
DHOs offices	112	1,232	57%
HC IV	166	7,920	60%
HC III	962	5,634	60%
HC II	1,321	4,905	45%
Urban Authorities Hus	155	20,216	50%
Total	2,763	55,443	58%

Figure 16. Staffing levels for all health workers in the public sector by March 2012. Annual Health Sector Performance Report. MoH 2012a.

WHO recommends a ratio of 2.3 health care workers per 1,000 populations as a minimum to meet the millennium development health goals. Uganda’s ratio currently stands at approximately 1.8/1,000 (MoH 2011a). The percentage of vacancies is higher in the districts than in the regional and national hospitals, see figure 16. This proves a heavy urban/rural imbalance with bias toward the Central region. While only hosting 27% of the population, the Central region includes 64% of all nurses and midwifery professionals, 71% of all medical doctors, 76% of all dentists and 81% of all pharmacists. No single medical doctor was recorded during the 2005 census in Kalangala, Nakasongola, and Moroto. Thus, the great majority of Ugandans rely on associate health professionals for clinical, nursing, midwifery, diagnostic, therapeutic, rehabilitation, preventive and promotional services. (AHWO 2009)

The extreme scarcity is found among medical engineers, which constitutes a bottleneck on all care levels. The most recent data of health workers population ratios at national level is from 2005, se figure 17.

Health occupation	Total	Population/ Health worker
Medical doctors	3 361	7 272
Nurses and midwifery professionals	664	36 810
Dentists	98	249 409
Pharmacists	162	150 877
Other health professionals	3 572	6 843
Allied health clinical	4 378	5 583
Nurses and midwifery associate professionals	20 340	1 202
Allied health dental	342	71 468
Allied health pharmacy	600	40 737
Allied health diagnostic	1 622	15 069
Other allied health associate professionals	5 828	4 194
Nurse assistant/aid	16 621	1 471
Traditional medicine practitioners and faith healers	5 430	4 501
Accounts and finance professionals	159	153 724
Accounts and finance associate professionals	278	87 921
Clerks	437	55 931
Technical and engineering professionals	12	2 036 837
Engineering technicians	129	189 473
Non-health professional	452	54 075
Other non-health associate professionals	664	36 810
Support staff	962	25 408
Total	66 111	

Figure 17. Health Workers population ratios at national level. 2005. Human Resources for Health Country Profile Uganda. AHWO (2009)

Too little is known about staff dynamics and attrition, but many regard it as disturbingly high. Incidental reports indicate that 30% of all medical doctors graduating migrate abroad. Better working conditions and more attractive salaries in the region and abroad are major pull factors. For example, the average monthly salary for a senior nurse/midwife is US\$341 in Uganda, compared to US\$630 in Tanzania and US\$1,384 in Kenya (AHWO 2009). Attrition among health workers and low productivity are attributed to poor and delayed payments in the public sector, lack of promotion, training opportunity and career progression especially under Local Government, poor leadership with harassment and lack of transparency, lack of decent accommodation and poor working conditions, health workers going for training and deaths due to HIV/AIDS, accidents and malaria. The low salaries in the public sector are a well-known cause for public doctors to work extra-hours in the private sector. Staff absenteeism is about 50 percent in government health centres level II and III. (ibid)

The government trains most of the human resources for health, with 28 out of a total of 48 health training schools, including schools for laboratory technicians and clinical assistants, while PNFP organizations own and operate the majority of the health training schools for nurses and midwives (20 out of 32). There are also a few private commercially operated health training schools. Government and donors support PNFP Health Training Institutions through a bursary scheme with the aim to improve the staffing level in public and PNFP health facilities in underserved areas of the country. The mandate for national education policies and coordination of pre-service training programmes is now with the Ministry of Education and Sports.

4.5 Health infrastructure, accessibility and equipment

The number of health facilities has been growing since 2001 when only 49 % of the population accessed health services within 5 km of their residence. In 2010, 72% of the population was estimated to live within 5 kilometres to a health service provider. Some Health Centres have been upgraded to higher levels which necessitated the construction of Out Patient Departments, theatres, maternity wards, staff houses as well as rehabilitating and equipping the health centres. However, most facilities and equipment are still in a state of disrepair. The 2008/09 annual health sector performance report says that only 40% of available equipment was in good condition and about 17% needed urgent replacement.

Improvement of buildings and maintenance of medical equipment is not regularly done. Nutrition units which are attached to health units are functioning with limited essential equipment. Accommodation for staff remains a big challenge and is claimed to be a major reason for low staff numbers, especially in hard to reach areas. Information and Communication Technology also remains a challenge within the public sector, with prevalence among health facilities being at 6.4% mostly comprising of mobile phone, radio, TV and computers to a smaller extent. (MoH 2010a) The existing infrastructure is therefore insufficient to ensure that the core functions of the health sector are carried out.

Private facilities might be slightly better equipped and

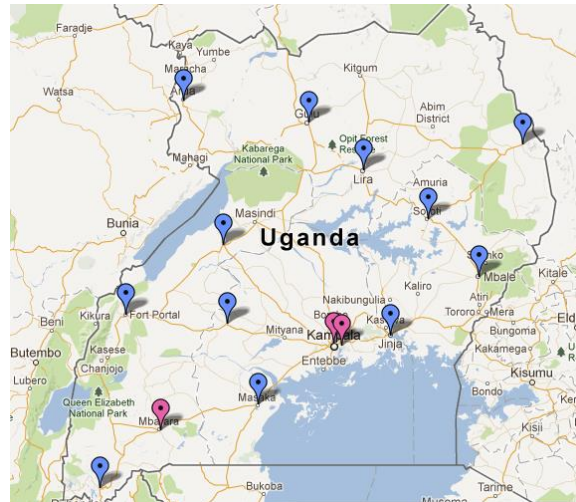


Figure 18. Location of National Referral Hospitals (pink) and Regional Referral Hospitals (blue) in Uganda.

Uganda Health Marketing Group is an initiative sponsored by USAID funds connecting clinics and providing essential, superior, and affordable health care solutions using a combination of social marketing and innovative campaigns approaches. UHMG comprises two strategic units: the commercial business unit, a health commodity and logistics unit which warehouses, stocks and distributes health commodities across Uganda and the Programs and services consultancy unit.

staffed in the Central region, but often experience the same shortages and restrictions in the rural areas due to the low pay propensity of the clients, as the public facilities do. However, there are growing networks of private clinics trying to reach out that can provide a higher standard of services. For example, the International Medical Group currently provides for 17 clinics countrywide. The Uganda Health Marketing Group connects 150 certified “Good life clinics” and provide them with training, medicines and supplies that can improve their services.

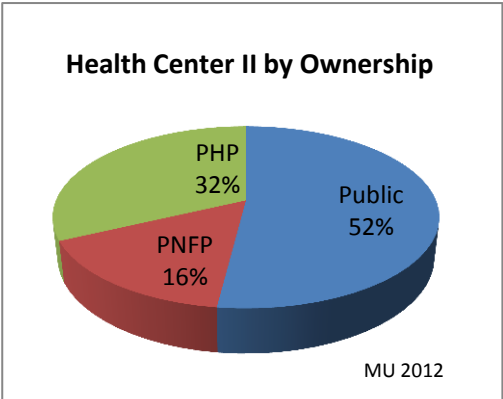
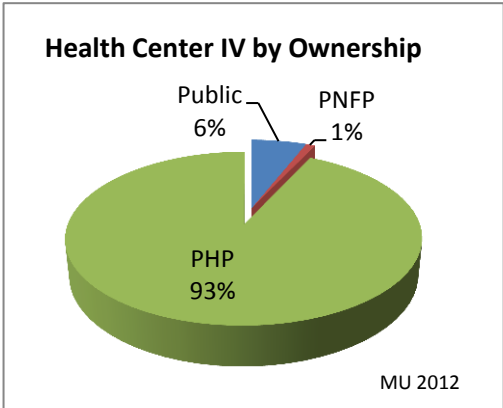
Accessibility to more advanced technique for diagnosis is extremely low. X-ray machines exist and are quite common in clinics, especially in Kampala, but there are only 2-3 MRIs in the entire country, according to Dr Brian, CEO at Nakasero Hospital. Imaging is quite expensive and if transport costs are added, most people decline to travel. Furthermore, scarcity of trained staff maintaining and repairing equipment prevent adequate use of the existing machines. This area is developed further in chapter 5.

4.6 Private Health Providers

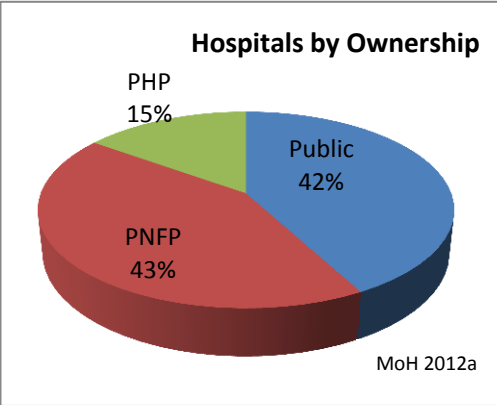
The Private sector in health care comprises Private Health Providers (PHP) and the Private Not for Profit Providers (PNFP) that are owned by the faith-based organisations. The PNFPs are described in chapter 4.7. As of 2010 it is estimated that the Private Health Providers constitute 22.5 % of all health care providers in Uganda with 1,174 privately owned health facilities. The sector is growing at a moderate pace, with most practitioners located in towns. Almost 70% of the privately owned facilities are located in the Central region; Kampala District alone accounts for 45 % of the Private Health Providers. (PHR 2005)

Private Health Providers have the largest share of Health Centre IV, the type of health facility that are smaller than hospitals but provide both outpatient and inpatient services. They often have x-rays and laboratory but not all services that a hospital can provide. There are approximately 200 Health Centre IV:s in total in Uganda. 93 % are owned by Private Health Providers. Most facilities are located in towns.

Most privately owned clinics are found at Health Centre II level, i.e. stand-alone facility with preventive and outpatient services. There are 964 privately owned smaller clinics in the country, many of them in rural areas, but it is more likely that these clinics are located in towns.



Privately owned hospitals are increasing in numbers as well as in magnitude. Ministry of Health counted to 23 privately owned hospitals in 2012, while only 9 were listed in an assessment made in 2011, see Figure 11. The increase also implies that the share of privately owned hospitals increased from 7% to 15%. It is likely, and claimed by stakeholders, that it is the growing market driven by wealthier persons in Kampala that has given rise to the private sector. However, most private clinics are still small and in 2005, the average private facility employed nine staff and only 70 % of the clinics had a medical doctor. (PHR 2005) The majority of the private facilities are singly owned, mostly by the medical doctor or a midwife/nurse.



It is evident that the private sector receives customers and patients from all social classes in Uganda. Some facilities are small, singly owned by a nurse or midwife in the rural areas with limited services to a low cost, while some are large well-equipped hospitals in Kampala with high user-fees and advanced tertiary care. The study in 2005 reports that the estimated number of staff employed in the PHP sector nationwide was 12,775. More than 80 % of the doctors were employed within the Central Region. Half of the doctors working in the private sector also work in the government sector, whereas more than 90 % of private sector nurses, midwives, and nursing aides work only (full-time) in the private sector. (PHR 2005)

PHPs provide an array of health services. One fourth of the PHPs surveyed in 2005 provide inpatient services. Curative services are widely offered, whereas preventive services are more limited. The exception is family planning, which is offered by three-quarters of PHP facilities. While more than 90 % of PHP facilities offer treatment for malaria and sexually transmitted diseases, only 22 % offer immunization services. About 40 % of the PHPs provide maternity, post-abortion care, and adolescent reproductive health services. Difficulties in accessing capital and other incentives have limited the development of certain aspects of service delivery in the private sector.

Private clinics offer less HIV/AIDS services than public facilities, mainly due to the fact that the HIV/AIDS programmes are funded by donors with MoUs with the government. The proportion of private facilities offering HIV/AIDS services are displayed in Figure 19.

	% of PHPs
Voluntary counselling	60 %
Distribute condoms	60 %
Facilities for HIV testing	29 %
PMTCT prevention	12 %
ART	2 %

Figure 19. % of private facilities providing HIV/AIDS care. PHR 2005.

There are several medium-size clinics in Kampala open 24-hour with emergency care, admission beds and specialist doctors. They attend to hundreds of patients every day and are preferred by the population with either insurances or those able to pay cash for the services. There are two larger private hospitals in Kampala, International Hospital of Kampala and Nakaseero Hospital, see details in section 5.5. An approximate of six medium sized hospitals/clinics are following the larger hospitals, expanding their services in a fast pace, among those Kampala Hospital Limited, Victoria University Health Care centre and the Surgery. It is evident that only in recent years the private sector in Kampala has grown essentially. There is also a growing trend of more cooperation between the private providers and establishment of networks of clinics, coordinated from Kampala.

4.7 Private-Not-For-Profit Health Providers

Private Not for Profit providers belong to churches, Non-Governmental Organizations or Foundations. They are divided into two groups: the facility-based PNFs, which offer preventive and curative care; and the non-facility-based PNFs, which offer preventive, rehabilitative, and palliative care. More than three-quarters of the facility based PNFs belong to the faith-based umbrella organizations of Uganda Catholic Medical Bureau, Uganda Protestant Medical Bureau, Uganda Muslim Medical Bureau, and Uganda Orthodox Medical Bureau. UCMB has 37 percent of the facility based providers while UPMB has 31 percent, with the remainder shared between the other organizations. The PNF sector has a significant presence in rural areas. (MU 2012)

As seen in Figure 11, most PNF facilities are on the health centre II level, offering out-patients and preventive care. They also provide for 43 % of the hospitals. Some larger hospitals reach the standards of regional referral hospitals with high-quality specialized curative care. The PNFs are generally well organized, well-run and are monitored and supported by the Medical Bureaus and/or other international organizations. An important advantage for the PNFs is the Joint Medical Store that supplies their facilities with medicines, medical supplies and equipment. The Medical Bureaus also coordinate activities, support facilities in accessing donor funding, and are engaged in advocacy.

PNFs cooperate with the government and supply the national health indicator system with data, which is contrary to the PHPs. 16 % of the budget of the Medical Bureaus and their facilities is provided by the government – in exchange for lower user-fees. 40 % are donor funds and 45 % are user fees. However, some facilities as the centrally located tertiary referral hospital Nsambya, get 98 % of the budget from user fees while those located in poorer and remote areas are more dependent on donor funds.

CoRSU is an example of an independent PNF not belonging to the Medical Bureaus but is supported financially by a Christian development organization, CBM. CoRSU provides high quality surgery and rehabilitation services for children and people with disability.

Staff in the PNFPs receive continuous training and benefit from exchange programmes and foreign assistance within the global network of churches and faith-based health care. Missionaries, medical doctors, nurses and midwives, are dedicated to serve the poor which explain and enhances the rural presence and the many facilities in areas where both public and privately owned facilities hesitate to establish.

4.8 Traditional and Complementary Medicine Practitioners, TCMPs

Approximately 60 % of Uganda's population seeks care from Traditional and Complementary Medicine Practitioners before and after visiting the formal sector. (MoH 2010a) The TCMPs include herbalists, traditional bone setters, traditional birth attendants, hydro-therapists, spiritualists, and traditional dentists. There has been a recent increase in the number of practitioners of non-indigenous traditional or complementary medicine such as Chinese and Ayurvedic medicine. TCMPs are present in both rural and urban areas and most TCMPs have no functional relationship with public and private health providers. This results in late referrals, poor management of various medical, surgical, obstetric conditions and high mortalities.

4.9 Medicines and other health supplies

The public sector has experienced a remarkable improvement in medicines availability from 43 % to 79 % between 2010/2011 and 2011/2012². (MoH 2012a) The improvement is due to a number of initiatives the government and development partners have undertaken to improve efficiency, cost-effectiveness, and access to medicines such as:

- developing a classification system to strengthen the selection of medicines and medical products;
- updating the essential medicines list to include laboratory supplies;
- and introducing a kit-based push system to district-level health centres.

Medicines are obtained free of cost at public health care facilities, though stakeholders report that informal payments are very common. In addition, public sector pharmaceutical staff shortages are severe, and particularly so in rural areas. Stock-outs in the public sector are still common and drive clients to the private sector. About 65 % of households in the lowest socioeconomic bracket face monthly catastrophic expenditures on pharmaceuticals. It is reported that for many people, medicines in the private sector are not affordable which creates a market for low-cost, low-quality drugs and self-medication. (Kitonsa, UHMG)

Uganda Investment Authority estimates that 90 % of pharmaceuticals is imported, accounting for 5.4 percent of Uganda's total imports. UIA further estimates that the value of these imports was 531 billion Ugandan Shillings in 2008, an almost 40 percent increase in one year, from approximately 380 billion in 2007. (UIA 2009) Informants estimate that by value,

² The indicator measures the availability of 6 tracer medicines (1st line antimalarials, Deprovera, S/P, measles vaccine, ORS and Cotrimoxazole) in the previous 6 months.

pharmaceutical distribution is currently about 40 percent through public channels and 60 percent through private channels (including the PFP and PNFP sectors). (MU 2012)

4.9.1 Procurement

There are two main procurement agencies, National Medical Stores, NMS, supplying the public facilities and Joint Medical Store, JMS, owned by the faith-based medical bureaus and mainly serving the private facilities. There are other entities that also procure and store medical products, which are displayed in Figure 20.

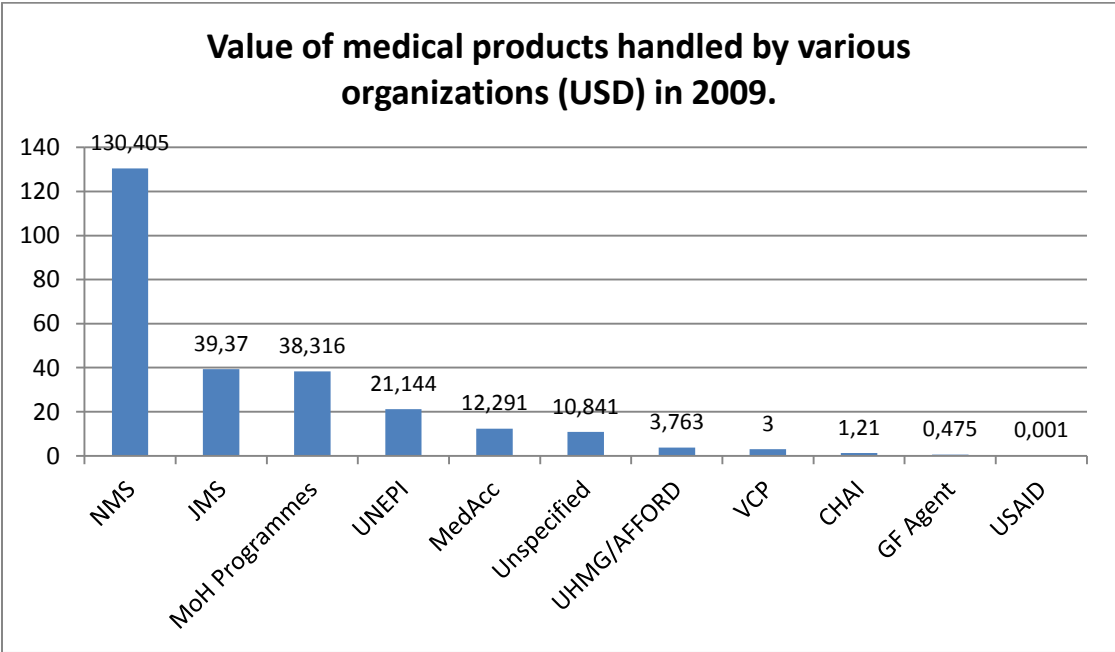
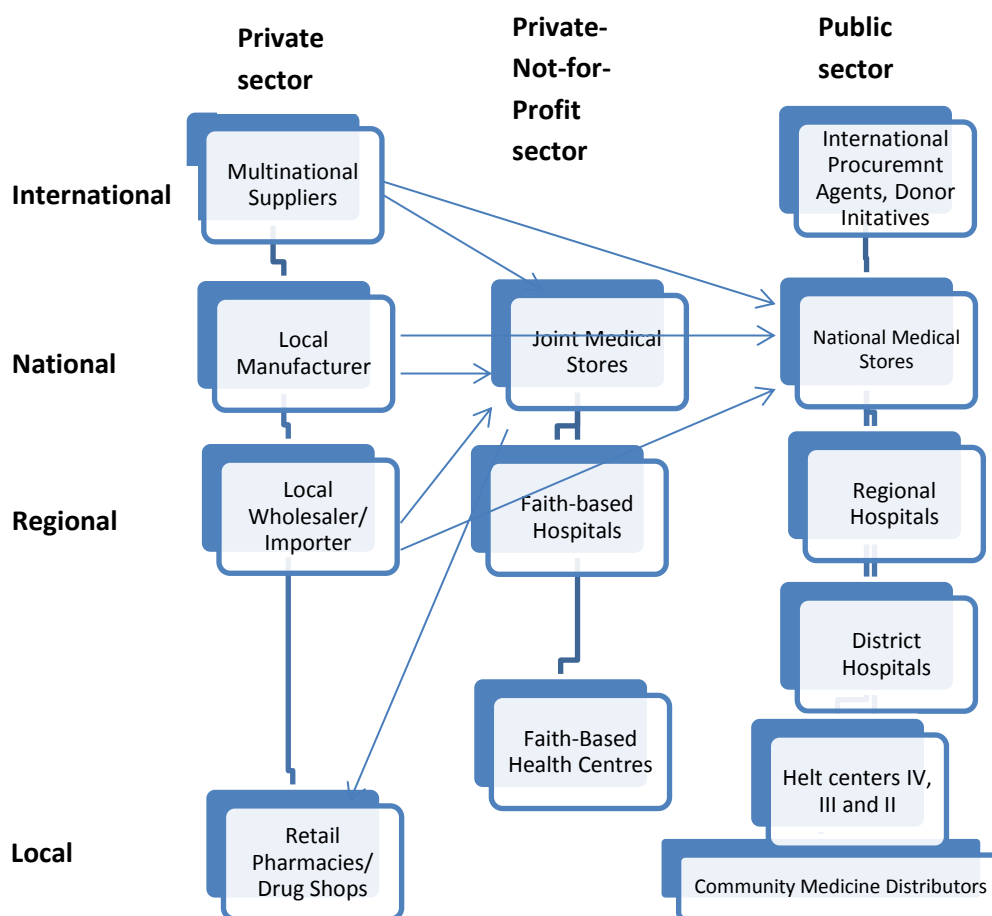


Figure 20. Value of medical products handled by various organizations (USD) 2009. Assessment.

Figure 20 proves that even if public procurement is large, there are several actors procuring, purchasing and handling medical products outside NMS and with less rigid (and delaying) processes. JMS, MedAcc, UHMG, VCP, CHAI, GF Agent, USAID, and the unspecified actors, have their own procurement processes and channels to purchase large quantities of medical products. The procurement of vaccines and vaccination supplies within UNEPI, a national immunization programme, was shifted to NMS in 2011.

The public purchase and distribution is also divided by several actors (NMS, Ministry of Health directly and through national programmes) and it is only in theory that the private and public sector have different processes of purchase and supply-chains. In reality, all public purchase of drugs is not channelled through the NMS and as much as 65 % of JMS’ clients are not PFP facilities. Figure 21 depicts the structure of the distribution system of medical products.



Figur 21. Structure of the distribution system of medical products. Uganda Health System assessment 2011. 2012.

Donors are the major funders of medicines in the public sector in Uganda. In 2009, it was estimated that only 30 percent of the required essential medicines and medical products for the basic health care package was financed by and through the government. Global initiatives provide the bulk of resources needed for malaria, HIV/AIDS, tuberculosis, vaccines and reproductive health commodities. (MU 2012) Programmes that are hosted, co-funded and funded by larger organizations with off-budget support tend to arrange their own procurements of medicines and medical supplies. For example, USAID post tenders on their web-site regularly.

Uganda Health Marketing Group is another actor on the market, purchasing and distributing products to mainly private clinics, pharmacies and drug shops. The revenue of the unit Product Facility at UHMG, for purchase and distribution of products for HIV, family planning, maternal and child health, and malaria, reached 1.4 million USD in 2010/2011.

Price is of course the key purchase criteria. However, this is changing slightly and several stakeholders are expressing a demand for “quality, but still affordable”. (Kaunda, JMS and Apio, UHMG). Presence, or at least easy access to representatives, is also important to many

stakeholders since communication systems and habits of using ICT are still not very developed. This is especially important in the relationship with the public sector.

The National Drug Authority is responsible for regulating the pharmaceutical market, licensing premises, drug information, pharmacovigilance, quality assurance, import permissions and disposal of expired medicines. Close to 95 % of the imported products are generic products. The challenge of counterfeit products on the market is becoming an increasing problem which the Ministry of Health acknowledges needs to be urgently addressed. (MoH 2010a)

4.9.2 National Medical Stores

National Medical Stores' budget accounts for almost 40 % of the total imports of pharmaceuticals and is the main governmental authority responsible for procurement, storage and distribution of medicines and medical supplies to all public health facilities. NMS' responsibility also includes identification of therapeutic needs, selection of drugs, and quantification of requirements. Procurement by NMS falls into two categories: 90 percent of total procurement is through national competitive tender, and 10 percent is through international competitive tender.

In 2011, the Ministry of Health developed a new Essential Medicines and Health Supplies List of Uganda (EMHSLU), which includes essential health and lab supplies. The Ministry of Health has also introduced a vital, essential, and necessary (VEN) classification system to apply to the EMHSLU. This system aims at helping to resolve a few challenges. The essential medicines list contains a very large amount of medicines, which the public sector lacks the financing to fund. The VEN classification helps pharmacy staff and procurement agencies to prioritize their orders when funds are insufficient to fully cover their needs. In addition, the list contains medicines that treat the same condition, but within a wide price range. While procurement for the public sector is based on the EMHSLU, NMS does not stock all of the medicines on the list. For instance, of the 22 anti-cancer medicines on the list, NMS stocks 2, and health facilities rely on the private sector for the others. (MU 2012)

Public procurement procedures follow the Public Procurement and Disposal Act 1 of Public Assets Act 2003. Invitations to bid are posted on websites³, Ugandan newspapers and billboards. Bidding documents are sold at the procurement unit, normally to a cost of 70 USD. At the time of bid opening, the method and closing date will be presented as well as the contracts committee representation. Public procurement is reported to be hampered by delays and bureaucracy. PPDA restrictions are responsible for 7–12 month delays in procurement procedures. (MU 2012) This creates not only problems to the bidding company, but also to the public health care sector. When the Heart Institute needed equipment for the new heart surgery theatre, the President made the government directly procure the equipment for 4.5 million USD in order to avoid delays. (Daily Monitor 2013a)

³ Supposedly on www.nms.go.ug, but the website is seldom updated.

In 2009/10, in a bid to improve efficiency, effectiveness, and compliance with expenditure guidelines, the Ministry of Health consolidated 50 % of the budget for medicines with a credit line and created a new single pool for financing medical products. (MoH 2010a) Money for this consolidated fund is channelled to National Medical Stores (NMS) to procure and distribute medical products to the public sector providers. Individual public facilities then order medicines in accordance with their procurement plans and NMS delivery schedule. During 2013 there have been several stock-outs due to deficiencies in communication and distribution.

The operations of NMS are governed by the National Drug Policy which determines the regulatory control of pharmaceuticals (import, export, local manufacturing, marketing practices, distribution, use and registration of pharmaceuticals). The Drug Policy also regulates the promotion of local production, including investment incentives, transfer of technology and associated taxes.

The lack of human resources at facilities for medical products management and the lack of management skills among facility staff are major threats to the availability of medicines. Medical product management capacity is weakest at the district level. In March 2012, a manual of management of medicines and health supplies was published. (MoH 2012b) More information on these initiatives and the selection and quantification process is available in the assessment of the health sector (MU 2012 page 81-84). National Medical Stores has also published a recent performance report on medicines management. (MoH 2013)

4.9.3 Joint Medical Store

Joint Medical Store is a joint venture of the Uganda Catholic Medical Bureau and Uganda Protestant Medical Bureau and is a not-for-profit wholesale enterprise, procuring, storing and selling over 2000 products available: pharmaceuticals, medical and surgical sundries, equipment and instruments as well as laboratory supplies. The range of services also includes training and advisory services in stock management and rational drug use, training in equipment repair and maintenance and a small drug information service. The primary target of JMS' services are church health facilities (the PNFs) but government staff, other NGO and faith based organization facilities also benefit from the services offered by JMS. Currently, 65 % of the clients are not church health facilities.

JMS post their tenders each year in February-March on their web-site. Their current catalogue and price indicator is accessible on the website with all pharmaceuticals, diagnostic reagents, medical equipment, instruments and laboratory apparatus. For more detailed information on which medical products are sold, and to what price, see Joint Medical Store's catalogue and price indicator. <http://www.jms.co.ug/>

5. Opportunities in the Health Sector

The needs are immense in the Ugandan health sector, and the desire to establish new partnerships is pronounced in all areas and on all care levels, both private and public. However, the areas that are emphasized as areas with business opportunities are:

- Government's and donors' focus are on communicable diseases and there is still room (and funds) for more partners, innovations and businesses. In this area, there are several reliable stakeholders involved and lessons learned to rely on.
- Management, HR training, e-health solutions and logistical support are areas with plenty of business opportunities in both public and private sectors.
- Development of the tertiary care is urgent and ripe to explore for international partners in both private and public sector.
- Early detection, treatment and care of cancer and cardiovascular diseases are also areas in need of urgent attention and investments.
- Research, innovation, and affordable equipment adjusted to the Ugandan reality are also emphasized by stakeholders as being areas with opportunities for Swedish partners.

5.1 Public Private Partnerships in Health

The Government of Uganda and the Ministry of Health do express openness to public-private partnerships and contracting out services. The new PPP Policy functions as an energizer to new innovative partnerships. A high official at Mulago Hospital said “Now that we have the policy, we can reach out broader for new partners.” All public stakeholders interviewed for this study expressed interest in partnerships with private actors, both within Uganda and abroad. Especially the private wings of public hospitals are inspired to seek new partnerships.

There are a few examples of projects where foreign private sector has been brought in to assist a larger donor in health programmes. USAID is the donor that is regularly working with American private companies in PPPs. Dutch public partners and private foundations also work with companies in partnerships to achieve aims in health development cooperation. Private foundations comprising organizations with an aim to improve the situation for Ugandans, businesses and sometimes larger institutions, are often involved in PPPs, working with public and private actors in Uganda. Several stakeholders advice foreign companies, academia and organizations interested in establishing partnerships in Uganda, to form a foundation in order

Becton, Dickinson and Company (a medical technology company) and PEPFAR (US President's Emergency Plan for AIDS Relief) have entered a partnership to support the Uganda health care system in implementing Laboratory Quality Management Training for all labs performing CD4 testing. The partnership will also assist in the development of a specimen referral system, using Global Positioning System/Global Information System (GPS/GIS) to map multiple laboratory sites for development of a transportation network and to monitor specific improvements in the laboratories.

<http://www.cdc.gov/globalaids/Success-Stories/BD-Public-Private-Partnership.html>

to avoid bureaucracy, costs and opaque regulations. Most common PPP forms are agreements and MoUs signed by public partners, and in second phase private companies are engaged in the implementation.

5.2 Research

Sweden has supported research capacity mainly at Makerere University since 2000 and remains the largest funder of research capacity strengthening in Uganda. To date, the total amount of this support amounts to approximately 75 million USD, shared between Natural science, Social science and humanities and Health science. The supported programmes within health focus on malaria, HIV/Aids, reducing maternal mortality, gender based violence, sexually transmitted infections, infant and child mortality, improved access to family planning services, increased access to drugs, and enhanced skills for diagnosis and treatment.

The current agreement includes support to 101 PhD students; 42 MA students; and 20 Post-Doc researchers. Institutional support is also provided for example to a research project where illnesses and the wellness of a population of 63 0000 is followed up longitudinal and documented. Swedish funding has led to results which have influenced the government's policy with regard to malaria, mother and infant care and cervical cancer management. For example, Michael Odida's research on cervical cancer in Uganda led to the adoption of HPV vaccination in Uganda. (Odida 2010) Odida was part of the double PhD programme in 2010.

Swedish funded research has also resulted in a method to detect multi-drug resistant tuberculosis and control of African Swine fever. The current agreement expires in December 2014. A new agreement is under negotiation and preparation. It is proposed that enhanced attention will be given to research, technology, innovation and business incubation initiatives.

The seven research areas in cooperation between Swedish Universities and Makerere University are currently Biochemistry (malaria), Clinical Pharmacology (malaria and antiretroviral drugs), Cancer (HPV), Mental Health (Depression and Psychosis), Reproductive Health, Microbiology (TB) and Health Systems Research (acute febrile illness, neonatal health, ARV scale-up).

A double PhD degree program between Makerere University and Karolinska Institutet has been developed. The collaboration has grown to include teacher and student exchange, and has attracted several research grants beyond the initial Sida funding. The collaboration is now being developed towards a long-term University Partnership.

<http://sida.mak.ac.ug/>

There are other large on-going research programmes regarding the communicable diseases. Several donors fund the Infectious Diseases Institute, part of the College of Health Science at Makerere University, and specifically focusing on AIDS/HIV. Uganda and Makerere University also hosts the Regional Centre for Quality of Health Care that can provide more information on projects to improve health care in the region.

The private sector also calls for assistance in research and compiling of data to extract conclusions that can improve the services. The recently opened International Diagnostics Centre has collected statistics that could provide them with key information if compiled and analysed. The profile of IDC is preventive diagnostics, offering medical health check-ups. Since the centre will be equipped with a laboratory, radiology unit, non-invasive cardiology procedures and tests and resting ECG, the base of patients will give them statistics that can provide knowledge in an area that is still not yet fully explored in Uganda.

Public, private-not-for-profit and private providers do see a need for partnerships in using high-quality research (preferably in Ugandan or East-African context) to develop and test new innovative methods in prevention, infection control, treatment and care on all levels. Public sector is more concerned about primary health care and innovations that would facilitate reaching out to the community while the private sector in Kampala tends to focus on the NCDs and the area where Uganda is only starting to learn about risks, pre-requisites and life styles that give rise to NCDs.

5.3 Cancer Management

Only a handful of hospitals in Kampala have the capacity to treat cancer. The publicly owned Uganda Cancer Institute is the largest unit with 56 beds, and it is the only facility that hosts a telecobalt unit. The number of oncologists (until recently there was only one active in Uganda), the number of medical devices and the facilities are not enough to cater for the number of patients in urgent need for treatment. The Regional Referral Hospitals do not provide cancer care. Once a month, Uganda Cancer Institute brings mobile cancer screening units to the two largest Regional Referral Hospitals to screen the most urgent patients. Most often patients are brought in the transportation back to Kampala since the cancer was detected in a very late stage. The Institute also receives patients from Rwanda, Congo, Sudan and Burundi. UCI employs 24 physicians and 68 nurses and receive around 200 in-patients a day.

Uganda Cancer Institute cooperates with Fred Hutchinson Cancer Research Centre and provides clinical services, training and research. A strategic training programme in infectious diseases and cancer care for Ugandan physician-scientists and other clinical staff is also ongoing. The construction of the new facilities is already initiated and well underway. Uganda Cancer Institute received a loan from African Development Bank and grants from USAID to open up a new facility with larger and more advanced capacity. The plans include installation of two Linear accelerators. A few projects and MoUs are signed in order to improve the capacity of the institute, with equipment's, facilities and training programmes. Israel has expressed an interest in developing a diagnostic unit. However, the management emphasizes the continuing demand for more partnerships in order to develop the national capacity of prevention, early detection and care.

Since cancer is on the rise in Uganda, the private health providers also plan for expansion of cancer care. International Hospital of Kampala already provides oncology services and chemotherapy but is in the planning phase for a radiation centre with more advanced

machines to treat cancer. Nakasero Hospital is currently negotiating with an Indian partner to start an oncology centre. Nsambya Hospital, owned by the Catholic church, is the largest PNFP facility and is also planning for a cancer care unit.

The Ministry of Health acknowledges the importance of early detection and is in the process of developing a cancer policy and national control program. The targets are to increase cancer awareness activities by 50% by 2013 and increase the availability of cervical cancer screening in all health centre IVs country wide by 2015. Two population based cancer registers and a national cancer database are planned to be established by 2015 and cancer guidelines and lower level training shall be in place by 2013. (MoH 2010a)

The area of cancer treatment is extremely underdeveloped in Uganda and is far from meeting the needs of prevention, treatment and care. Cancer patients are younger and the infection related cancers seem to be more prevalent in East Africa than in the developed world. This coupled with cultural beliefs of cancer being witchcraft and a popular resistance to seek health consultation preventively, call for extensive research and innovative measures to find ways to prevent, detect early, and treat cancer. The Uganda health care system is only starting this, and partnership opportunities are plenty.

5.4 Heart Diseases/cardiovascular

Cardiovascular diseases are also on the rise and an area that is relatively unexplored. Preventive health check-ups are rare in the Ugandan culture and have only recently begun to be requested. Diabetes, hypertension, and obesity are increasingly becoming a challenge to the health sector that is unprepared and lack training and skills to prevent and provide treatment.

The publicly owned Uganda Heart Institute is mandated to provide super-specialized tertiary cardiovascular and chest surgical care. The recent investments in a catheterization machine and a new theatre in the Heart Institute allow for super-advanced heart surgery but operations are limited due to lack of skilled personnel. Some procedures which the machine can handle are only carried out during visits of external cardiologists. However, exchanges of cardiologists are recurrent and an anticipated increase of international cooperation would maximize the existing resources. (New Vision 2013)

At the Regional Referral Hospitals and general hospitals, CVD health care services are provided by specialist physicians and medical officers respectively. The Ministry of Health has committed to create awareness about CVDs and associated risk factors amongst policy makers and the community, develop national standards and guidelines for CVD prevention and management, and improve access to early diagnosis, quality treatment and care of CVDs and their complications including prevention. The targets by 2015 are to develop standards and guidelines for CVD prevention and management and the percentage of health facilities from Health Centre IV and above equipped to diagnose CVDs increased by 5%. (MoH 2012a)

Although the public facilities experience a rise in diabetes and hypertension, the private health providers in Kampala notice an even higher demand for services related to obesity, overweight and other life-style related problems. The part of population who can afford a life style with processed food and traveling in car, can also afford health check-ups. The International Diagnostic Centre, part of International Medical Group, opened in 2009 and has seen a constant rise in clients seeking preventive check-ups although the centre is not fully equipped yet. Nakasero Hospital also notices a rising demand for preventive check-ups and wellness consultations. However, as the manager of International Diagnostic Centre emphasizes, the area of wellness has just recently entered Uganda and there is not enough research on the Ugandan context to accurately guide the development. So far, it is the private sector in Kampala that has picked up the trend of greater demand of wellness consultations.

5.5 Tertiary care hospitals and their needs/plans

There are only a handful of hospitals in Kampala that provide tertiary care of which one is public, two to five are private and one to three are PNFP. The public institution is Mulago Hospital, a national referral and teaching hospital which also hosts the Cancer Institute, the Heart Institute and the Infectious Diseases Institute (HIV/AIDS). The private largest hospitals are International Hospital of Kampala (within the International Medical Group) and Nakasero Hospital. The private medium-size clinics that are expanding, i.e. developing facilities and employing specialists, should be considered as future important players in the sector of advanced care. These are the Surgery, the Victoria University Health Centre, Kampala Hospital and CorsU focusing on orthopaedic surgery and rehabilitation.

5.5.1 Mulago Hospital

The Ministry of Health has great plans for the development of Mulago Hospital. Currently it is extremely underequipped and experiences a severe shortage of treatment facilities and specialist physicians. The hospital has a capacity of 1,500 beds but register 3,000 admissions. On a daily basis, the health facility registers between 6,000 to 7,000 outpatients. The wards are crowded and patients and families are resting or sleeping in the corridors or on the lawn outside. The Government has initiated infrastructure development including equipment, but progress is slow due to inadequate funding. However, the executive director recently announced that the construction of 100 staff quarters is now initiated and will be completed in about two and a half years. (New Vision 2013b)

In 2004, a project team led by the University of North Carolina, built Uganda's first pediatric intensive care unit at Mulago Hospital. They brought essential equipment for ICU monitoring, resuscitation, and respiratory support, as well as a broad range of much-needed medicines. To ensure that the unit would be sustainable, the team of physicians and nurses trained local medical staff in proper use of the equipment. Since then, over 30 children have been operated, nurses and physicians trained and plans are underway to deliver telemedicine for joint medical, surgical, and nursing educational opportunities with Makerere University and Mulago Hospital.

<http://globalhealth.unc.edu/>

The private wing of Mulago Hospital (which takes patients with private insurances) notices a rise in demand and is planning expansions specifically in kidney disease treatment, obstetric care and maternal/child care. The Ministry of Health considers the private wing to be the main health provider that should be developed to care for the patients that are now referred abroad. The private wing today encompasses 100 beds.

Mulago Hospital has received a African Development Bank loan to renovate and re-equip the hospital. China is also interested in Private Public Partnership projects and has initiated discussions. Exchange programmes for specialists, or any health professions, are urgently needed, according to the Ministry of Health. Currently, Mulago Hospital is exchanging specialists with the USA, UK and Israel (emergency area) but is in constant need of expanding exchange programmes.

5.5.2 International Medical Group

The International Medical Group consists of seven health services companies; International Hospital of Kampala, International Medical Centres, International Health Science University, IMG Pharmaceuticals, IAA Healthcare, International Diagnostic Centre and International Medical Foundation for the poor and vulnerable.

International Hospital of Kampala is so far the only ISO certified hospital in Uganda. IHK has a capacity of 85 beds and provides a wide range of general and specialist services such as Dietetics, Gynaecology, Neurosurgery, Neonatology, Ophthalmology, Orthopaedics, Oncology, Paediatrics, Plastic Surgery, Internal Medicine, Psychiatry and General Surgery.

International Medical Centres is a growing network of 17 clinics throughout Uganda which offer primary care to the public. International Health Science University, situated on the third floor of the IHK building, is a non-residential university offering health related programmes. IHSU was licensed by the Uganda National Council for Higher Education in 2008. For more information on courses, see www.ihsu.ac.ug. International Medical Group Pharmaceuticals procures warehouses and distributes drugs and medical supplies as well as some medical equipment, to the hospital and IMC clinics. IAA Healthcare provides medical schemes to individuals, families and corporate organizations. The schemes are serviced primarily by IHK and the International Medical Clinics, but IAA Healthcare also has over 120 affiliated clinics contracted to provide services throughout the country.



The International Diagnostic Centre aims at becoming an advanced wellness centre with a modern radiology suite, a non-invasive cardiology centre with an extensive reference laboratory. The IDC opened in 2009 and is still underway in getting equipped. Despite not being fully developed, the centre receives 1000 patients a year who do health check-ups. In case more advanced diagnostics are needed, clients are referred to IHK until machines and equipment are installed at the centre. International Medical Group also hosts International Medical Foundation, an NGO founded in 2004 as a response to the gap in the provision of secondary and tertiary healthcare for the poor and vulnerable. International Medical Foundation runs two community projects in Kampala and Lango plus supports treatment of cancer patients and complex conditions for Ugandans who cannot afford these treatments.

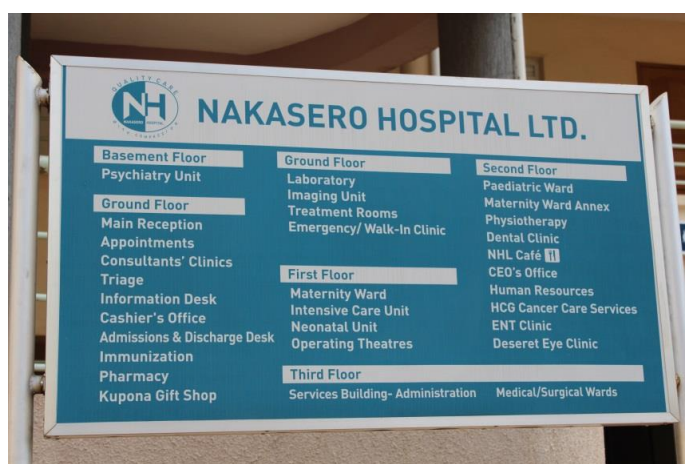
IMG experiences an increase of demand in all areas where they are active. The Hospital has recently been renovated and the management is now planning for expansion of oncology services. While land has been allocated, partners are not yet identified. IHK is also constantly seeking to improve the quality of equipment, service contracts and specialist training. Overall capacity building is an on-going requirement where the growing network constantly seeks new partners and opportunities to improve the services. Plans for a catheterization laboratory are also under discussion and apparently in the pipeline.

International Diagnostic Centre also seeks new partnerships to improve services and become Uganda’s first complete diagnostic centre. Equipment, service-contracts, training and research is still not fully covered for, and high-quality but affordable solutions that are adjusted to the Ugandan setting are on top of the agenda. Dr Macrine Nyisomeh, senior medical officer at IDC, explained that the current partnerships are with India primarily because of the affordability of their services but also because of the heavy traffic, low cost air tickets and connections. –“Sweden,” she says,” is a dream to us. Reality would change here.”

5.5.3 Nakasero hospital

Nakasero Hospital is a fairly new hospital in Kampala that opened in 2009. The hospital is rapidly expanding and growing. An annex that will provide paediatric outpatient and day-care, physiotherapy, ante- and postnatal classes and travel medicine services is under renovation and has partly started with some services. An executive clinic for governmental officials and others who require privacy will be established. There are plans for an entire new building.

Nakasero hospital provides specialist care with a long range of specialist doctors, of which many are visiting doctors, see www.nakaserohospital.com. Laboratory services are run by South-African LANCET



Laboratories. The laboratory is equipped with state of the art equipment that enables them to carry out most investigations. Rare tests and those that require further investigation are sent to Johannesburg.

Nakasero Hospital also has an imaging department with digital equipment supplied by Philips which includes X-Rays, X-Ray fluoroscopy, 4D Ultrasound Scan, and C.T Scanner. The digital equipment allows for support by radiologists from Teleradiology solutions in Bangalore, India who are able to report electronically. The imaging centre was set up in 2013 through a partnership with Health Care Global Enterprises from Bangalore in India. The management is currently negotiating with Health Care Global Enterprises to set up an oncology and cancer centre with the potential to expand in Uganda and the region. The imaging centre is intended to include MRI, CT Scan (64 slice), X-Ray with CRN system, Mammogram with CR system and Ultrasound.

Nakasero Hospital also aims at improving capacity in cardiovascular and heart treatment and surgery. Two teams of nurses from the hospital were trained in India and there were advanced plans for opening a catheterization laboratory. The government disapproved the plans at the time but Nakasero Hospital is at the moment reviewing and resuming the plans.

5.5.4 The PNFP sector

The Medical Bureaus own three larger hospitals in Kampala that mainly provide primary and secondary care. The size of the hospitals though, would allow for an extension of tertiary care services and the Medical Bureaus are open to discussions on improving the readiness for tertiary care, for example establishing a cancer care unit in either of the hospitals.

PNFP hospital in Kampala	No of beds	Services offered
Nsambya Hospital Research and teaching hospital. Internship hospital for graduates.	360	Surgery Internal Medicine Paediatrics Obstetrics Gynaecology
Mengo Hospital	300	Antenatal Clinic Counselling & Home-care Dental Clinic Eye Clinic Laboratory Occupational Therapy
Lubaga Hospital Includes a private clinic for patients with private insurances	500	Internal Medicine General Surgery Obstetrics Gynaecology Paediatrics Dental Clinic

		Ante- and Postnatal care Diabetes Clinic
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Although focus remains on the communicable diseases and health care for the vulnerable and poor, the Medical Bureaus are interested in forming partnerships to meet the needs of the population related to the increase in NCDs. Early detection of cancer, improved equipment and service contracts and training are also urgent areas for improvement in the PNFP sector. The Medical Bureaus are also developing mobile services.

5.6 Diagnostic Centres and Laboratories

There is a rising demand in Uganda for diagnostic centres and laboratories as the living standard is improving. Historically and traditionally, Ugandans tend to seek formal health care only when they are very ill, but the attitude is changing slowly. This is notable to the private sector in Kampala where there is a rise in the amount of smaller clinics offering diagnostics and laboratory services, but also the public sector experiences an increase in numbers of out-patients.

Several stakeholders mention the need for “one-stop-shop” diagnostic centres. The Director of Planning of Health Services at the Ministry of Health, Isaac Ezati, expressed an interest in partnerships for developing a public diagnostic centre in Kampala with equipment that can detect both communicable and non-communicable diseases.

The private hospitals and clinics have already started to develop diagnostic centres in collaboration with mainly Indian and South-African partners. South-Africa is developed and located close enough to send lab tests (and patients) back and forth while India has the advantage of providing relatively advanced and affordable health care. Also, many Ugandans have Indian ancestors and relatives and prefer Indian health care. However, neither of the larger private diagnostic centres is fully developed or equipped and the private actors are interested in developing their new diagnostic centres further.

It is probably the Private Not for Profit Sector that lags behind in the development of more advanced diagnostic centres, even if there is an interest in developing this area, both in Kampala and in the larger facilities in the rural areas. Except from the private International Medical Group that is growing fast and now has 17 clinics in the country, it is only the PNFP of the private actors that have a countrywide network and can coordinate resources and benefit from being large and well-organized.

There is a market for establishing new units and diagnostic/laboratory centres in Uganda, especially in Kampala where the clients who can afford private health services live. In particular there is a need for laboratories with capacity for more advanced tests or to handle overflow of lab tests from public hospitals. However, building up a business from scratch takes time and permissions, licenses and bureaucracy and will demand patience and skills in navigating in Ugandan culture and practices. CEOs of the largest hospitals and recommended clinics are either born in Uganda or have become citizens after living in Uganda for very long. Advice to foreigners interested in starting clinics is to liaise with the existing community and employ a manager who knows Uganda.

Mukisa Foundation is a centre for parents and children with special needs. They provide physiotherapy, information, counselling, home based care and outreach programmes.

www.facebook.com/pages/Mukisa-Foundation/

5.7 Infection Control and Antibiotic Resistance

The areas of infection control and antibiotic resistance are acknowledged by both governmental authorities and private stakeholders as two important but unexplored areas with an urgent need for research and innovation. Infection control might be parts of the large national programmes on TB and HIV/AIDS but has still not reached the level when all health staff are fully aware of risks and mitigation strategies. A survey made at Mulago Hospital in 2012 proved that almost all health workers knew to wash their hands, although nursing and support staff were less likely to perceive that their hands can be a vector of disease transmission. “Sinks were not readily accessible, and soap at sinks was uncommon throughout the medicine and obstetrics wards but more commonly available in the surgery wards. Alcohol gel was rarely available.” (Sethi et al 2012) The Ministry of Health also recognizes the low awareness of infection control and commits to issuing guidelines. (MoH 2010a)

In 2008, a large research project was initiated and funded by the Gates Foundation, to evaluate antibiotics use and existence in Zambia and Uganda. The evaluation found that the resistance to basic antibiotics (cotrimoxazole and amoxicillin) is high, and rising quickly in Uganda. Dosages for children were variable, and in some cases far from recommended. In addition, both under- and over-dosing are occurring and older children, 4-5 years, were getting too little drug. Amoxicillin in particular posed quality and stability issues. (Gates 2011) The main reasons given for the irregular use of medicines are lack of diagnostic equipment, lack of diagnostic capacity and prescription skills by health workers, lack of medical products staff, and heavy client load (which does not allow prescribers to spend ample time on each patient). (MU 2012)

Even if many stakeholders are concerned about the excessive use of antibiotics, and worry about the lack of national guidelines to prevent irrational use and to manage antibiotic disposal, there are few initiatives taken. The Health Sector Strategic &



Investment Plan 2010/2011-2014/2015 doesn't mention "antibiotic resistance" one single time.

5.8 Disability

80 % of physical disability in Uganda can be prevented, reduced or cured, according to CoRSU, the leading comprehensive rehabilitation centre in Uganda. CoRSU's primary focus is on children with physical impairment for whom orthopaedic and plastic/reconstructive surgical interventions and rehabilitation services are provided. CoRSU provides free surgery for children with disabilities below 17 years of age. However, CoRSU alone can not cover the massive needs for surgery and rehabilitation in Uganda.

Nakasero Hospital provides rehabilitation services, but recurrent rehabilitation services in public hospitals are very scarce. Appliances are outdated, if existing, and not adjusted to the Ugandan reality with clay-roads, dust and no flat surfaces. Awareness of simple physiotherapy exercises is low, both among the disabled persons themselves, their families and in the health centres and hospitals. Persons with disabilities are referred to charity organizations or to begging in the streets.

Disability is an area with a vast need of research, innovation and education. Ugandan health care system does not prioritize this area, despite rising numbers of people with disabilities. The private sector do provide services, but the base of people with disabilities that can afford services, or have private insurances, is too small to create a driving force for development.

5.9 Health Infrastructure, Including Equipment

The Ministry of Health has committed to prioritize investments in infrastructure (buildings, equipment, ICT and transport) to ensure that at least 75 % of the total infrastructure is available and in use. (MoH 2010) During the plan period the sector will target upgrading of physical infrastructure in 190 HC IIs, 120 HC IIIs, 190 HCVs, 17 general hospitals, 3 general referrals and one national referral. Capital investments shall be done in the 4 national referrals, 10 regional referrals and 35 District Health Offices. In addition, laboratory supplies shall be scaled up. However, when the financial year of 2011/2012 was summarized, most of the planned investments in infrastructure were hampered by inadequate funding, procurement procedures, and poor

USAID and the Sida has provided Centenary bank with 3 million USD in loan guarantees to provide low-risk loans to private healthcare providers that offer health services to the most vulnerable rural populations. Among the beneficiaries targeted are cervical, breast and prostate cancer communities. The agreement, extending over seven years, targets private borrowers that own and operate small and medium health service enterprises, including pharmaceutical wholesalers, retail dispensaries, private clinics and hospitals. It also caters to the provision of personal loans for transportation, housing and education of rural health workers.

<http://allafrica.com/stories/201210181480.html>

logistical support. (MoH 2012) Only a few investments plans were completed.

The two largest private hospitals in Kampala, IHK and Nakasero Hospital have recently undergone larger refurbishments and are planning for physical extensions in annexes and new buildings. The Surgery will move into a newly built compound in November 2013. Victoria University Health Centre has also undergone recent renovations.

Medical devices constitute a bottleneck in the sector, which hampers development. Except from the PNFs, equipment is purchased through individual agreements between hospitals/company and key purchasing criteria is often the lowest price. In the public sector, needs of infrastructure, equipment and hospital furniture are assessed and coordinated by a unit at the Ministry of Health, under the Department of Planning. In theory though, the procurement is conducted by the individual public hospital. A National Medical Equipment Policy was issued in 2009 and it provides guidance on medical equipment management cycle, a standard list of equipment for each healthcare level, and a detailed technical specification for recommended medical equipment. (MoH 2009)

The JMS procures medical devices, distribute them and offer training and services. JMS also host 2-3 technicians who travel to facilities or send for equipment that need repairing. Spare parts are in stock at JMS.

The market allows for low-cost companies to sell equipment without service agreements and training. However, various stakeholders have expressed that after decades of experience of low-price drugs and equipment, other factors are now taken in account when deals are negotiated or supplies are procured. JMS and the larger hospitals and clinics in Kampala are concerned about the low quality equipment that does not last for long and needs constant service and new spare parts. The demand for equipment is now coupled with a demand for attached training, service, and easy access to engineers.

Both public and private stakeholders emphasize the importance of package deals with equipment, service agreements and training. Uganda experiences a severe shortage of medical engineers which is the main reason for the large amount of medical machines not being in use. Donors may have donated CT-scanners, x-rays and even MRIs and telecobolt units, but the machines did not arrive with manuals or engineers who could maintain or repair it. Now Kyambogo University in cooperation with Amalthea Trust has recently started a course in Medical Engineering and Uganda hopes to see the first 10-20 students soon enter into the Ugandan health care system.

Flexi Healthcare Ltd is a Kenyan company distributing laboratory and medical equipment and supplies in Uganda. Their clients are private, private not-for-profit and public hospitals and clinics. Currently, they are promoting and selling the Hematology Analysers produced by Medonic, Sweden.

www.flexihealthcare.co.ug

Philips provides many hospitals with medical devices, and service contracts, but has recently left Kampala and now provides their services from Nairobi. Due to the shortage of engineers, this is a serious blow to the health sector. Swedish medical devices are considered to be of

high quality, but doubts are raised about the affordability. However, with packages of service and training, most stakeholders are interested in considering new deals.

Accessibility to oxygen also constitutes a bottleneck countrywide. Anaesthetics machines do exist in hospitals and better equipped health centres, but the oxygen supplies are often located too far away from the hospitals and clinics. Establishing oxygen plants in strategic areas would improve services essentially (Otieno, JMS) Transport is also a challenge. There are too few ambulances in the country, communication infrastructure is weak and many ambulances are outdated.

5.10 Medical Products and Medicines

There is a constant need of new and more efficient medicines and smarter supplies. As mentioned above, the market allows for low-cost and not so efficient medicines and there are some efforts taken by private actors to procure and purchase higher quality products (JMS, UHMG and the larger private hospitals). However, affordability is always an important criterion.

Swedish pharmaceuticals and supplies are considered to be of high quality, but it is mainly the innovative aspect that is interesting for the Ugandan stakeholders. Since there is still not much research on for example the NCDs in the African context, many stakeholders are interested in new, innovative, but affordable, medical products that are adjusted to the Ugandan reality.



George Mirie, the Business Development Manager at Flexicare Ltd asserts that time is ripe for Ugandan healthcare to appreciate longer-lasting and improved equipment and supplies, rather than low cost. Flexicare attends the conferences of Arab Health and Medica (Germany) that are organized in East Africa. Those are the opportunities to explore new products, compare and learn about future purchases. Flexicare is primarily interested in

European medical supplies, but when selecting more advanced equipment, service agreements and training has to be taken into account and presence and easy access becomes a criterion.

5.11 Management Support

In the public sector, there is a strong need for management support, including planning, supervision, training, and monitoring. The decentralized system requires well-working functions for monitoring, inspections and financial accountability. Many of the districts are recently formed and lack staff with management and administrative skills. These are also the districts with lowest scores in reaching targets set in the Health Sector Strategic & Investment

Plan. (MoU 2012) Managerial skills are needed throughout the system all the way to the rural clinics that are expected to deliver services in line with regulations and report the outputs.

Ministry of Health has identified Management Support Investments as one of the prioritized areas. Resources are allocated to management support, although without added funding from donors, the resources will only be sufficient for day-to-day operations and sustaining the structure as it operates today. The Sida-funded programme for enhancing planning and management at the Ministry of Health and two regions can provide more information on experiences of bottlenecks, needs and future challenges.

Furthermore, the referral system is not functioning as expected, due to lack of resources, infrastructure and of course low accessibility. Referral is ad hoc and depends on available funds for transportation and available information on where equipment for advanced treatment is functioning and whether specialist doctors are in-country at the moment. Cultural beliefs and resistance to travel and scarcity of accommodation for family and relatives are of course also factors that affect referrals.

Referrals within the private sector are also ad hoc and depend on contacts and perceptions on where the best health care is obtained. It has been mentioned repeatedly that high officials tend to go abroad for minor surgeries or check-ups that could easily be done within the country. However, the private sector is developing faster than the popular perception is changing and private actors are ready to take on the task of structuring referrals and organize accurate information on what services that can be provided within Uganda.

5.12 E-health

There are various e-health initiatives rolled out in the country, but none of them have yet covered enough facilities to make an impact on service delivery. Most initiatives are recent and still in a pilot phase. The scarce availability of computers and low usage of internet within the health sector are severe constraints to full-scale e-health programmes. Overall, paper-based collection and compilation of data continues to be the norm at the health facility level, but a plan is underway for Uganda to move towards a computerized and web-based system. Work is also underway on an e-health strategy. (MU 2012) Central responsibility for managing the national Health Management Information System (HMIS) rests with the Resource Center at the Ministry of Health.

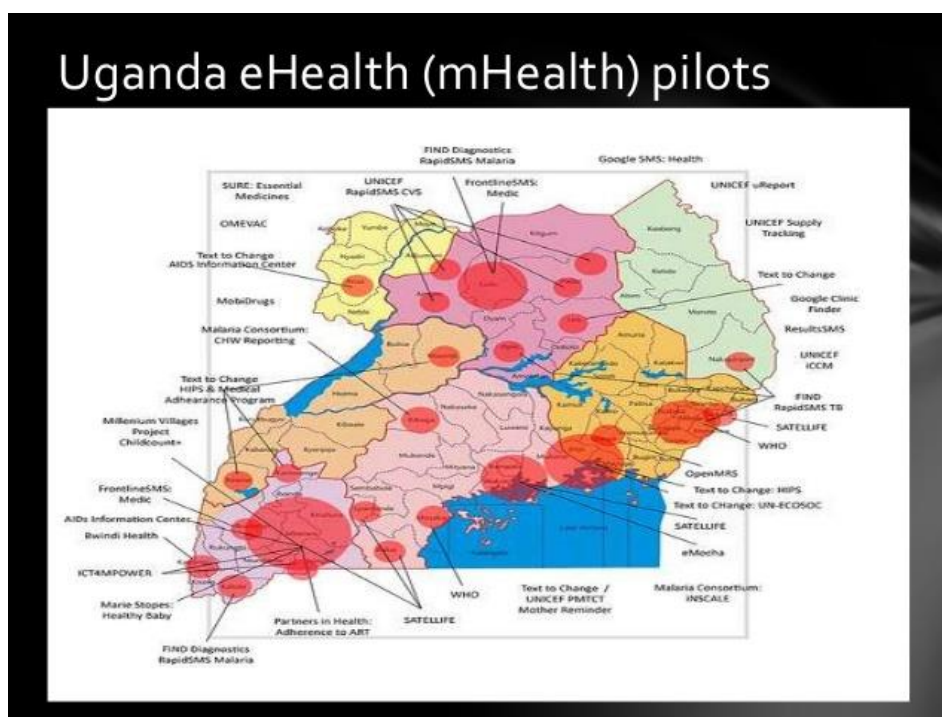
Text to Change is a private company operating Africa, using mobile phone technology to send out and receive information to educate, engage and empower people on wellbeing related issues.

The programs in Uganda are funded by Connect4Change which is a consortium of Dutch development organisations and specialized ICT organisations.

www.texttochange.org

Nevertheless, mHealth initiatives are breaking ground and are widely used in popular awareness raising campaigns, family planning and antenatal care of pregnant women. Most pilots are funded by health donors and are parts of their programmes to prevent and treat communicable diseases. Makerere University is discussing a mHealth project that among other things will facilitate rapid diagnosis tests, with a Canadian company.

The Ministry of Health also launched an eHealth project in October 2012 executed jointly for five years with Ministry of Health and Uganda Communications Commission. The project aims at reaching national, regional, district hospitals and Health Centre IVs. Focus is on



Health Management Information System and Telemedicine (basic and advanced). The project

will eventually cover 53 hospitals and 69 Health Centre IVs. The establishment consists of: a resource centre at the Ministry of Health Headquarters, computer centres at the beneficiary facilities, Local Area Network, Fibre-optic network, Telemedicine equipment, Solar Power equipment, and National Grid connection. Apart from establishing linkages between the facilities, the project will provide e-learning, online Medical Journals, e-libraries, and e-consultations. The project is still in its inception phase and officials at the public hospitals are aware of the project but its plausibility is too early to determine.

Uganda Catholic Medical Bureau is entering into a partnership with Cordaid and Connect-4-change consortium to provide their hospitals and health facilities with computers and ICT training. The project will enable health workers use Electronic Patient Record Management Systems, web-based Health and Management Information System, do teleconferencing and online courses.

Private hospitals and clinics also continue to keep paper-based compilation of data, journals and records. Some hospitals have scaled up with computers, but mainly as complement to log-books and paper-files. Journals and data can be e-mailed within private institutions, but a full-scale solution for exchanging medical journals and e-consultations etc. is still to be developed. MedCardApps AB, Sweden, has initiated a partnership with a few clinics in Kampala and regard the market as interested in developing computer-based solutions.

5.13 Human Resources for Health

Lack of staff is acknowledged as a major challenge to universal health care and is prioritized by both the Ministry of Health and donors. USAID and PEPFAR fund a large recruitment programme where thousands of new nurses, midwives, doctors and other health personnel will be recruited to health care providers countrywide. In addition, in May 2013, the government also finished the recruitment of 8,000 new front line personnel with fresh resources allocated to health from the national budget. (Isaac Ezati, MoH)

There is a continuing need of training; specialist training, in-service training and of course pre-service education. Major challenges discussed in the Human Resource in Health Strategy and Policy include inadequate availability of pre-service health training and poor training capacity and quality among health training institutions. (MoH 2011b) Various organizations have set up platforms for collaboration and coordination on implementing HRH policy. The HRH Working Group at the Ministry of Health is relatively active and oversees the development of human resource activities, such as the workforce information system and district plans. There have been some key successes in addressing major constraints to improving the HRH situation. (MU 2012) However, areas of specialist training, development

of training modules in NCDs, exchange programmes and health sector and pharmaceutical management are identified as areas where assistance is needed.

Makerere University hosts the Regional Center for Quality of Health Care that develop regional programmes to improve health care in East Africa. The Centre is updated on trends, research and ongoing programmes in the area of management and HR training.

<http://www.rcqhc.org/>

The private sector is also highly interested in exchange programmes and specialist training. The CEO of Nakasero Hospital described how various hospitals pooled resources and invited foreign specialist to conduct open heart surgery on several patients during a few weeks. Areas that have been mentioned as areas where Uganda doesn't have a cadre of qualified surgeons, are heart, cancer, brain and neuro. Availability of these specialists is ad-hoc, based on individual connections and are often "imported" or reached through partnerships with mainly India and UK. Several of the interviewed stakeholders in the private sector regard Swedish competence in the area as top-quality and highly desired, but probably expensive.

6. Risks and Challenges

There are several risks that have to be taken into account when starting to do business and initiate partnerships in Uganda. The most apparent risk is corruption and bureaucracy, but most businesses in Uganda have learnt to navigate through the challenges and stick to doing business company to company. Ericsson has been established in Uganda for many years and considers it being easy to operate in Uganda. Work-permits can be difficult, depending on industry, power supply has improved essentially but still constitutes a threat to power-sensitive business. Taxes are relatively low even if import duties vary depending on products. (Sumerats, Ericsson)

Market drivers:

- Private sector is large and is growing in health in Uganda
- Heavy burden of infectious disease
- NCDs are on the rise and are still relatively unexplored
- Private insurances are increasing and the middle class is growing

Market restraints:

- High price sensitivity and lack of public funding
- No adequate health insurance and limited private insurance
- Bureaucracy and lack of transparency in general and in public sector in particular
- Corruption, fraud, kickbacks and clientelism
- Poor infrastructure, including power supply

6.1 Corruption

There are various forms of corruption and corrupt practices, prevalent in Uganda. The scandals that are revealed in media often concern budget leakages, bribes and frauds in the public sector. However, in a society where corruption pervades every-day life, practices as favouritism, absenteeism, kickbacks and frauds are also common in the private sector. The various levels and areas in the health sector are exposed to different kinds of corruption, as seen in figure 22.

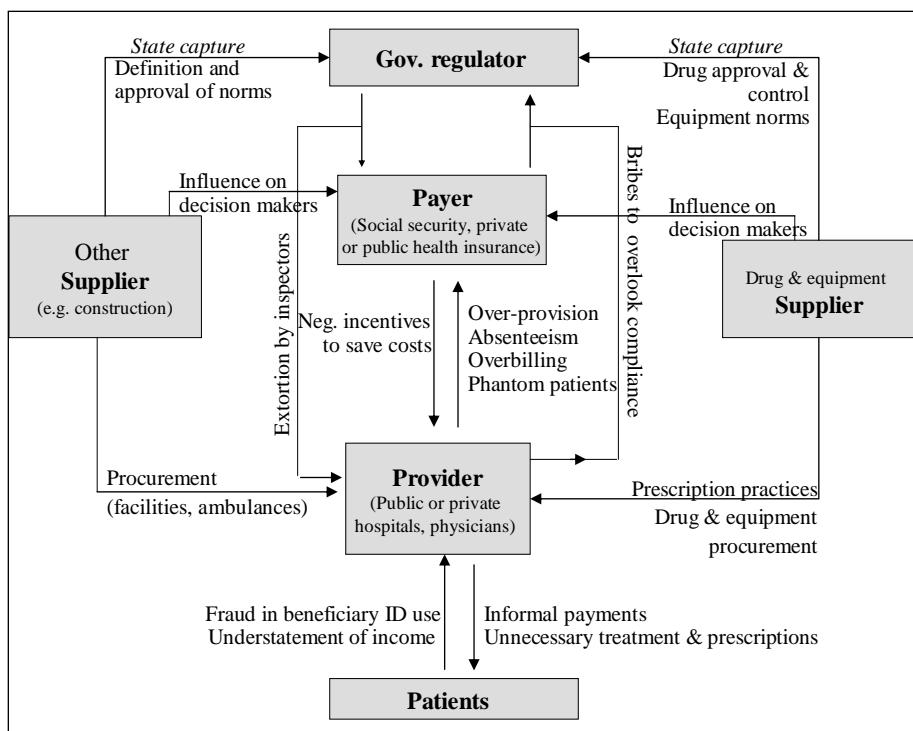


Figure 22. Savedoff & Hussman (2006) Why are health systems prone to corruption? Transparency International Global Report on Corruption.

Like in other countries, funds available to the different blocks of the health system are often mismanaged in Uganda. A joint World Bank and Ministry of Health study revealed that the health sector loses about 14 million US dollars annually through health worker absenteeism, expired drugs, and poor payroll management (Okwero et al. 2010).

In the large corruption scandal that was detected by the auditor-general in October 2012, the misuse and theft of 13 million USD in donor funds that were channelled through the prime minister's office was reported. Several donors, including Sweden and the EU, suspended aid to the government pending further investigations. In response to the scandal, the government froze the assets of some of those accused of embezzling, initiated audits into the public finances and reimbursed some of the donor aid. As per May 2013 the suspension is still in effect.

Even if it seems like fraud is revealed and officials are brought to court more often, it is difficult to determine whether the government has strengthened the fight against corruption. All charges do not result in convictions and many cases drag on. However, the government claims to be committed to fighting corruption and regulations and laws are in place to mitigate and detect fraud. The donors that suspended aid in November 2012 have required better systems in place to avoid corruption and will not continue financing government activities until those systems are in place. The fact that it was the Ugandan auditor-general, and his office, who detected the scandal with Swedish funds involved, bodes well and is an important milestone on the road to stronger internal control.

6.2 Political risks

President Museveni is positive to private sector development and Public Private Partnerships and has been so since he took power in 1986. He has introduced important reforms to facilitate growth, trade and establishment of foreign companies in Uganda. The opposition to these political reforms has been limited, but since political stability is not consolidated and democracy is still recent in Uganda, future developments are difficult to predict. Since early 2000s, oil has been discovered continuously in Uganda, which either will result in an economic boom if managed well, or can create unrest and further political instability. So far, two bills on oil exploration have been passed in parliament with relatively ease and analysts believe that even if opposition will seek to stoke resentment, they lack tactical skills and organization to scale up protests. (EIU 2013)

The main threat to political stability is currently the opposition within the ruling party NRM. Next elections are scheduled to 2016, the year when president Museveni turns 72. The next elections in 2016 carries with it uncertainty, and it is unclear what agenda different political fractions have for the private sector. So far, opposition against private sector development has not been pronounced.

6.3 Competition and starting businesses in Uganda

The private health sector is large enough to encompass a variety of companies and providers. However, low cost pharmaceuticals and equipment, mainly from Asia, continue to dominate the market. Why Philips left Uganda is unclear, but several stakeholders claim that the challenges that are essential to be overcome when establishing a business with higher quality is to still be able to make deals that are affordable and adjusted to the Ugandan reality, i.e. provide spare-parts and training instead of requiring replacement when equipment fails.

Presence is a second advantage, if not requirement. Procurement processes demand representation and since management in supply chains are often week, monitoring is necessary. Swedish businesses that have entered the Ugandan market (Husqvarna, Oriflame, Volvo, Scania) often establish distribution offices. No health sector business has so far established in Uganda. Swedish export to Uganda account for less than 0,1 %. Ericsson is the largest Swedish company in the country.

Nevertheless, the environment for business relations for Swedish businesses in Uganda is supportive. Sweden is cooperating with the private sector in Uganda through Sida's Business for Development (B4D) approach that seeks to bring in private sector actors as partners in Swedish Development Cooperation, via public private partnerships and challenge funds. With the B4D approach, Sweden is currently cooperating with the private sector in two different projects: One focusing on youth employment and one in incubation of businesses with a special emphasis on ICT. In addition, nine projects in Uganda have received funding through the Swedish challenge fund Innovations Against Poverty (IAP). Within the area of health, Sweden is providing a loan guarantee to Centenary Bank in order to allow the bank to provide low-risk loans to private healthcare providers that offer health services to the most vulnerable

rural populations. According to the Swedish Embassy in Kampala opportunities for B4D solutions are particularly good within the area of health in Uganda and the Embassy is open to new projects within this field. For more information on the B4D approach, see:

<http://www.sida.se/privatesector>



80 % of physical disability in Uganda can be prevented, reduced or cured.



“Proper care should be every child’s right, no matter where she was born.”

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All documents that are not easily accessed through internet can be sent as pdf files, lottasandinconsulting@gmail.com
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Rachel Apio, Logistics and Procurement Manager, Uganda Health Marketing Group, 13 May 2013

Mwesige Benjamin, Pharmacist, Uganda Cancer Institute, May 15 2013

Dr. Harold K. Bisase, HMK Consults and Associates International, 15 May 2013

Dr Brian, CEO Nakasero Hospital, 29 May 2013

Dr. Ian Clarke, CEO, International Hospital Kampala, 14 May 2013

Sean Clarke, General Manager, International Medical Group Pharmaceuticals, 14 May 2013

Ulf Ekdahl, First Secretary, Private Sector Development and Trade, 5 June 2013

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Isaac Ezati, Director Services and Planning, Ministry of Health, 14 May 2013

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Ron Hess, Director Private Sector Programs, John Hopkins University, 13 May 2013

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George Mirie, Business Development Manager, Flexi Health care Ltd, 19 June 2013

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