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COST AND PRICING:

AN ASSESSMENT OF PRIVATE HEALTH FACILITIES IN UGANDA

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**Cost and Pricing: An
assessment of private health
facilities in Uganda**

Study Report

**COALITION FOR HEALTH
PROMOTION AND SOCIAL
DEVELOPMENT (HEPS
UGANDA)**

And

**SAMASHA MEDICAL
FOUNDATION**

For

**USAID/UGANDA PRIVATE
HEALTH SUPPORT PROGRAM**

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ACRONYMS

ACTs	Artemisinin Combination Therapies
ANC	Antenatal Care
HCT	HIV Test and Counselling
HSSIP	Health Sector Strategic Investment Plan
IPT	Intermittent Preventive Treatment
MoH	Ministry of Health
MSP	Manufacturer Selling Price
NDA	National Drug Authority
NTLP	National Tuberculosis and Leprosy Program
PHP	Private Health Practitioners
PMTCT	Prevention of Mother to Child Transmission
PNFP	Private not for profit
PPP	Public Private Partnerships
RDTs	Rapid Diagnostic Tests
SMC	Safe Male Circumcision
TB	Tuberculosis
UNMHCP	Uganda National Minimum Health Care Package
USAID	United States Agency for International Development
UGX/UShs	Uganda Shillings

EXECUTIVE SUMMARY

When faced with a health problem, most people in the third world first visit private healthcare providers, including private health practitioners (PHP). In Uganda, it is estimated that PHPs, who are considered more responsive to demand, contribute up to 46% of health care provision (MoH, 2011). The country's Public-Private Partnerships in Health (PPPH) policy emphasizes the full participation of the private health sector in attaining national health goals, but it has been noted that the expansion of PHPs has largely been unregulated and chaotic (MOH 2009). And in spite of the recognition of the critical role that the private sector can play in service access, the costing of the national minimum package of health services has been based mainly on the public sector. Yet charges for consultation, investigatory tests, hospitalization and pharmaceuticals tend to discourage some households from seeking care when it is needed (Russell S & Gilson L, 1997).

This report presents outcomes from a study commissioned by USAID/Uganda Private Health Support Program to determine factors that influence the costing and pricing of selected health services in the private sector. The study was conducted in 36 private health facilities distributed in four districts. Data was collected using a structured questionnaire, personal interviews and focus group discussions. The cost of services and commodities was based on micro-costing (ingredients approach), step down costing and the provider's perspective. The WHO/HAI methodology was used for determining medicine price components.

The findings reveal that higher-level facilities had higher average annual economic costs, with hospitals averaging UGX 790,847,320 (USD \$316,339) per year, more than a dozen times higher than the average annual costs of the lowest-level facilities surveyed. Personnel and drugs were the major cost drivers in the private facilities, irrespective of level. At the level of health centre II (HC II), the two items contributed 35% a piece to the total economic cost. There was no clear pattern with regards to the variation of health facility costs by location (rural versus urban).

The results show that PHPs do not have a systematic method of determining mark-ups. Service prices are set on the basis of prevailing market prices within the locality and clients' ability to pay. The majority of the facilities surveyed did not have adequate income and expenditure records.

Retail mark-ups of medicines were found to vary between 50% and 600%. Medicines and commodities used in subsidized programs and social marketing initiatives such as contraceptives had lower retail mark ups at all levels of care in both urban and rural areas.

Health services in the private sector were reported to be expensive and unaffordable to many health consumers. Majority of patients incur out-of-pocket payments to access healthcare in PHP facilities.

In the short term, the USAID/Uganda Private Health Support Program should consider partnership arrangements with other programs working towards increasing availability and affordability of services in the private sector to subsidize the cost of some drugs and health supplies so as to lower the cost of services. The Program should enter into long-term purchase agreements with wholesalers/distributors of a priority list of the medicines that are required by the accredited facilities to enable the accredited facilities benefit from low prices that come with economies of scale and market and price predictability.

In the medium term, the Program should collaborate with professional associations to support capacity building of facility owners/managers in economic management and analysis to facilitate improvement in service pricing.

The Program should collaborate with economic institutions to enhance access to business finance, including credit facilities, by PHPs, particularly for purchase of key diagnostic equipment, to improve the quality of services.

In the long-term, the Program may consider working with National Drug Authority to recommend retail prices based on market studies for priority health commodities and services.

1. CONTEXT

1.1 Structural framework for health care delivery

Health services in Uganda are delivered through public sector and private providers specifically the private not for profit (PNFP) and private health practitioners (PHP). Public health services are by policy provided free of charge but fall short of meeting the health needs of the entire population. The public sector is insufficiently staffed, experiences frequent medicines stock outs, and has a poorly motivated staff (MoH and Macro, 2008; MoH, et al., 2012). On the other hand, private health providers are considered to have relatively better quality services and, for this reason, the private sector has been shown to be the preferred provider for both rich and poor Ugandans (Pariyo et al., 2009).

Private health providers have the ability to locate services to areas with high demand, though most of these again are in urban locations. However, the mechanism of payment for services by the private providers specifically “fee for service” is a critical barrier to access and utilization of health services by the population especially for the poor and underprivileged communities. The capacity of the private providers is further undermined by weak organisational, coordination and governance systems¹.

They are mainly sole proprietorships, easily set up and dissolved-a situation that compromises service sustainability. The focus on profitability, though good for resource mobilisation and sustainability of provided services, can result into less compliance to health policy guidelines and/or professionalism in service delivery, particularly with insufficient regulatory oversight. The private health sector has not been an ideal approach to achieving equity in health. PHPs are demand driven and are thus, mainly concentrated in the urban areas that have populations that have higher ability to pay for services.

1.2 Role of non-state actors in health delivery

Non-state actors play an important role in the delivery of health services in developing countries (Bennet et al., 2005). When they have a health problem, most people in the third world first visit private healthcare providers – private-not-for-profit (PNFP) and private health practitioners (PHP), including traditional healers – because they are seen to be *more convenient*, working for longer hours and more considerate than public health care facilities. More so, private service providers are often the first choice for women seeking birth control methods (Rosen and Conly 1999; Bennet et al. 2005). Generally private health care providers are more accessible, convenient, and are perceived to be of better quality. Private providers were trusted for being very friendly and approachable,

¹ Health Systems Advocacy. (2005, January 1). Retrieved May 18, 2014, from <http://www.ghwatch.org/sites/www.ghwatch.org/files/b1.pdf>

extremely thorough and careful, and easy to contact. Villagers trusted public providers for their skills and abilities (Ozawa.S, Walker.D.G, 2011).

Progressively, more decision makers in developing countries are cognizant of the role of the private health sector in service delivery. In fact governments acknowledge the hurdles they face to meet the basic health needs of their populations and so they contract out to non-government organisations (NGOs) and private sector companies, to meet the needs of underserved populations. The private health sector differs in terms of its legal status, training, facility base, nature and complexity of product or service provided and proportion of time spent in private practice (Patouillard, et al. 2007). In Uganda, the private sector facilities are known to have an uncoordinated network and weak regulation though some initiatives such as the Accredited Drug Dispensing Outlets (ADDO) have come up to organise private sector groups such as the drug shop networks .

- The private health sector contributes about half of the health outputs in Uganda; of the present number of health staff (doctors, nurses, midwives) in the country, including the PNFP sector, almost 40% working for the private sector; 45 per cent of women of reproductive health age in 2011 received their family planning services in a private facility (HSSIP 2011/12-2015/16). The facility based PNFPs comprise 41% of the hospitals and 22% of lower level health facilities complementing the public health care system especially in rural areas. It is estimated that PHPs contribute 46% of the health care providers in Uganda (MoH, 2011). Three quarters of PHPs provide family planning services, 90% offer malaria and STD treatment, 40% provide maternity, post abortion care and adolescent sexual health services. Difficulties in accessing capital and other incentives have limited the development of certain aspects of service delivery in the private sector.

The private sector is the preferred first line point of care, largely an attribute to simplicity in access to care which includes close proximity to clients and beneficiaries. Through enhanced partnerships, the role of the private sector in Uganda is of immense importance in ensuring that a larger proportion of Ugandans get access to quality health services. One of the objectives of the National Development Plan (2010) is to build and utilise the full potential of the public and private partnerships in Uganda's national health development.

1.3 Policy framework for PHPs

The legal framework in the country supports the establishment and operations of the private health sector to complement public efforts in the delivery of quality health services. The private health sector policy environment is favourable, with the Ministry of Health (MoH) nurturing sector growth through the National Policy on Public-Private Partnerships in Health (PPPH) policy. Development partners also realise the potential of the private health sector, and provided assistance is increasingly incorporating the private health sector. The primary goal of the PPPH policy in health is to enhance

the full participation of the private health sector to maximize the attainment of the national health goals.

Private sector costing of health care

There is a dearth of literature on the cost structure of health facilities and the cost of health service provision in the private sector. Most previous studies have mainly focussed on provision of services within the public sector yet such information is necessary to inform strategies to increase the affordability and availability of health services by the private sector.

Despite the emphasis on PPPH within the National Health Service delivery framework, the costing of the package of health services to be delivered focussed mainly on the public sector. Similarly, the costing for the benefit package of Uganda's essential health package known as Uganda National Minimum Health Care Package (UNMHCP) also mainly focussed on the public sector as one of the avenues for delivering the essential health care package (National Health Policy II, 2010). A costing exercise by Uganda's Ministry of Health in 2008 which was aimed at exploring what it would cost to provide a package of health services within the private sector facilities to provide services under the National Health Insurance (NHI) is one of the notable attempts to cost delivery of services within the private sector (Maniple et al. 2008). However, this exercise had limitations due to lack of coverage of the various levels of private providers.

With regard to costing for specific health services such as malaria, HIV testing and counselling (HCT), Antenatal Care (ANC), Prevention of Mother to Child Transmission (PMTCT), tuberculosis (TB), and safe male circumcision (SMC), there are gaps in literature regarding the costs of health service provision; especially by the private sector. The private sector is heavily involved in the provision of such services in Uganda. Most previous studies have not focussed on what it costs health facilities, particularly those in the private sector, to deliver such interventions. For example, a costing study by WHO and MoH which was aimed at finding out the cost of providing quality care for pregnant women and new-born babies is one of the few studies which was able include cost of providing services such as antenatal care and family planning (Weismann et al., 1999). It found that the cost of an ANC visit varied from \$1.46 (UGX 3,650) at a health centre and \$2.60 (UGX 6,500) at a hospital with the biggest cost constituent being personnel. However, key among the limitations of this study was that it only focussed on the cost of providing these services in public health sector facilities.

Most of the costing studies in Uganda and generally the economic evaluations have focussed on biomedical components for some of the interventions. Kuznik et al. (2012) assessed cost-effectiveness of combination antiretroviral therapy for PMTCT while a more recent study by the MOH estimated the cost of providing PMTCT through the various prongs with aim of eliminating paediatric HIV (MoH 2012). Within malaria diagnosis, Batwala, et al. (2011) compared microscopy, RDTs and

presumptive diagnosis for malaria to assess which was the more cost effective means of malaria diagnosis and concluded that RDTs were more cost effective.

Ahaibwe and Kasirye (2013) carried out simulations to assess the economic impact in terms of costs saved for SMC and HCT in Uganda and their findings showed that these interventions are cost saving. However, while these findings are important for policy in terms of informing implementation, there remains a key gap in knowledge particularly on how much it will cost the health system particularly the private sector to provide such services. Information on cost of health service provision by private providers is crucial as input for policy makers in addressing the issues of both availability and affordability of health care services by the population.

1.5 Purpose of the study

The purpose of this study was to determine factors that influence the costing and pricing of selected health services in the private sector, and use these findings to inform short and long term strategies to improve affordability of health services in Program targeted districts in Uganda. The specific objectives of the study were to:

- a) Estimate all facility operating costs and allocate these to individual cost centres. Cost centres included buildings and permanent structures, equipment and furniture, personnel, drugs/medicines and medical supplies, laboratory tests, and utilities.
- b) Determine specific cost components for drugs, laboratory tests and a clinic visit for a health service. Health services of interest included HIV counselling and testing, tuberculosis (TB) diagnosis and treatment, malaria treatment, antenatal care, safe male circumcision, and prevention of mother to child transmission (PMTCT).
- c) Determine factors private providers consider when pricing healthcare services including medical consultations, drugs/medicines, and laboratory tests.
- d) Compare variations in facility costs and prices based on location (urban/rural), staffing, type/level of health facility and any other factors deemed significant.
- e) Survey local pharmaceutical manufacturers and distributors, including wholesalers and retailers, to determine their cost components and factors they consider when pricing their drugs/medicines and health commodities.
- f) Survey consumers at selected private health centres to assess ability to pay for health services including drugs/medicines and health commodities.
- g) Compare pricing of health services for different payment modalities such as out of pocket payments or health insurance exist.

1.6 Research questions

- a) What are the unit costs for clinic visits, pharmaceuticals, and laboratory tests for the health services provided and pharmaceuticals stocked by PHPs?

-
- b) What do PHPs charge for the services offered? Health services include HIV/AIDS counselling and testing, malaria treatment, safe male circumcision, antenatal care, and prevention of mother to child transmission?
 - c) How much do PHPs pay to purchase medicines and health commodities?
 - d) How much do PHPs charge clients for medicines and health commodities?
 - e) How do PHPs set prices for health services including drugs/medicines and health commodities? What costs, if at all any, are considered when setting the prices?
 - f) What mode of payment is used by clients for specific health services, medicines, or health commodities?
 - g) What are the barriers faced by clients in paying for specific health services, medicines or health commodities?
 - h) How much are clients charged for specific health services, medicines, or health commodities at private health facilities?

2. METHODOLOGY

2.1 Study design

This was designed as a descriptive study using qualitative and quantitative methods. Key informant interviews were held with private health facility in-charges. Focus group discussions (FGDs) were conducted with health consumers. The participants included users of the services provided at private health facilities.

2.2 Sample selection

The 44 districts supported by USAID/Uganda Private Health Support program were stratified into rural and urban. Two urban and two rural (a total of four districts) were purposively selected for the survey. The urban districts were Jinja and Mbarara and the rural districts were Rakai and Kyenjojo. The urban districts were chosen on the basis of being municipalities and rural districts were basically town councils.

The cost and pricing study was conducted in a representative sample of private health facilities in four districts (two urban, two rural). The urban districts for the study were Jinja and Mbarara while the rural districts were Rakai and Kyenjojo. The urban districts were selected on the basis of being large municipalities while rural districts were town councils. The districts were purposively selected from within the Program's 44 targeted districts of the USAID/Uganda Private Health Support Program ².

Lists of private health facilities, pharmacies, clinics and drug shops from Ministry of Health (MoH), National Drug Authority (NDA), Medical and Dental Practitioners Council and the Allied Health Professionals Council were obtained and used to provide guidance on selection. A list of facilities supported by the USAID/Uganda Private Health Support Program also provided selection guidance.

The list of facilities in each study district was stratified into urban and rural. According to the WHO/HAI methodology an urban area is one with a town of at least 50,000 residents and a rural area is at least 10 km from the town. Care was taken to select only urban facilities in the urban study districts and rural facilities from the rural areas. Nine facilities were selected per district (a total of 36 facilities) using simple random sampling. The standard WHO/HAI³ methodology recommends thirty outlets per sector for a survey to achieve enough data points for analysis.⁴

² The 44 Program targeted districts are Budaka, Bugiri, Buikwe, Bukedea, Buliisa, Bushenyi, Kaberamaido, Kalangala, Kampala, Kamwenge, Kanungu, Kiruhura, Kibaale, Kasese, Kayunga, Kyenjojo, Masaka, Masindi, Mbale, Mbarara, Mityana, Mubende, Mpigi, Mukono, Nakasongola, Ntungamo, Luwero, Rakai, Kabale, Kabarole, Hoima, Ibanda, Isingiro, Jinja, Kagaadi, Kiboga, Pallisa, Rukungiri, Rakai, Sembabule, Soroti, Serere, Tororo, Wakiso.

³ www.haiweb.org/medicineprices

⁴ It is noted that a number of validation studies (in addition to the 9 pilot studies) were done during the original process of methodology development. The most important validation was on the sampling frame where it was

Respondents were purposively chosen for key informant interviews . Respondents at the facility were the in-charges, owners or suitable persons delegated by in-charge/ owner including; medical doctors, clinical officers, nurses, midwives, health assistants, pharmacists/dispensers, district health officers, local district leaders, pharmaceutical industry (importers, manufacturers, wholesalers and distributors) and clients at selected target sites. One focus group discussion (FGD) was conducted per district. Each FGD was composed of 8-12 persons who were selected from facility exit clients or beneficiaries of the facility in the neighbourhood.

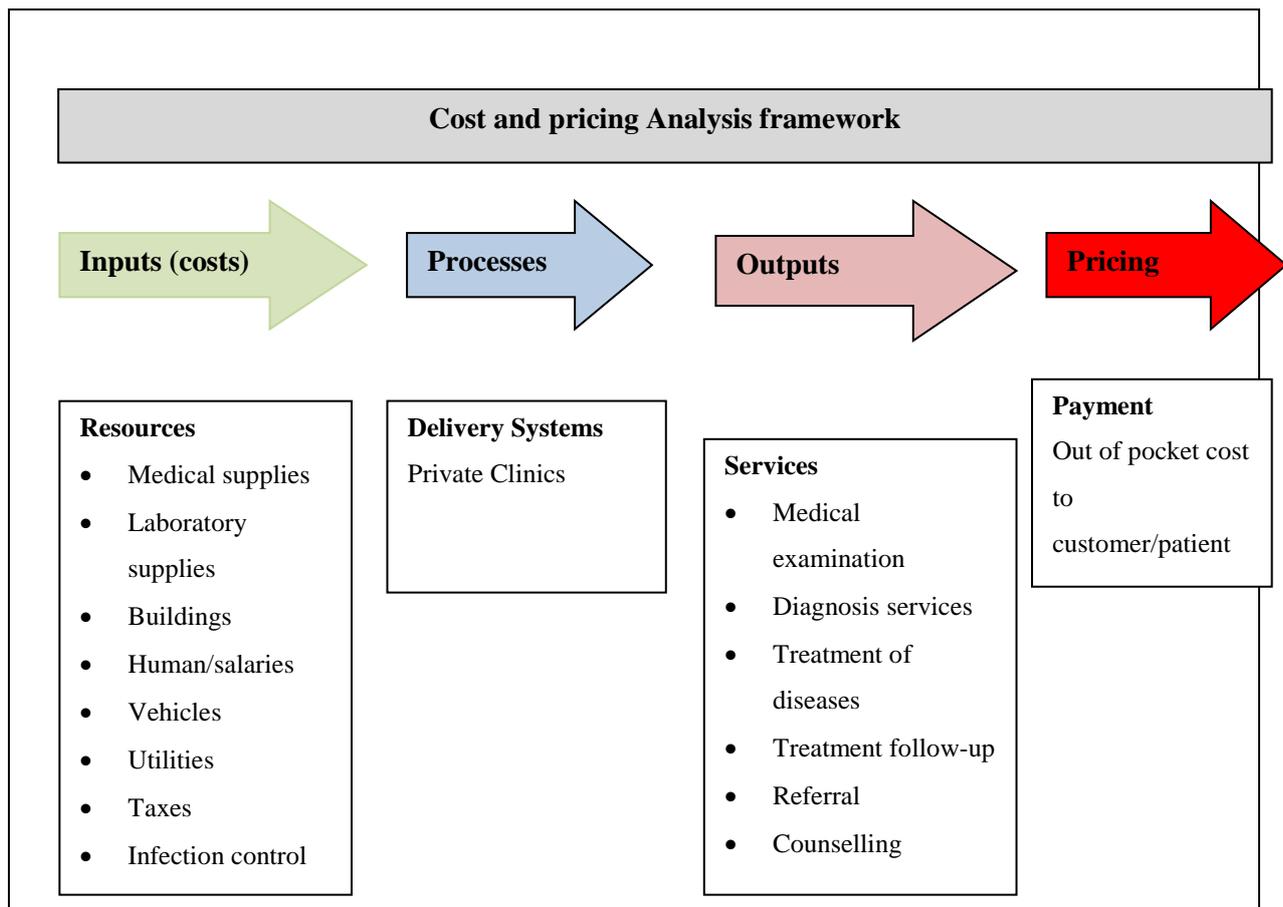
2.3 Costing and cost analysis

In health related cost studies, it is recommended that the economic definition of cost be used and not the accounting definition (Luce 1990, Mcguingen 1993, smith 2003). The economic cost measures the cost of all resources used by the private health facility. This definition of the health services was used for this study. All the resources were identified, quantified and valued so as to obtain their cost.

2.3.1 Perspective of costing

The provider's perspective was used for this study. This perspective considers only the costs that accrue to each of the different private health service providers. This perspective is sufficient to address the objectives set out by the study.

found that sampling more regions and those in areas greater than one days car travel from the capital, and in each area from more outlets a greater distance from the main hospital produced the same results as using the standard sampling frame. The adequacy of collecting data on just the originator brand and lowest priced generic equivalent was also studied – again it was found there was no significant difference in the results. The volatility of MSH prices (used as an external bench-mark) have also been studied and little volatility has been found. A paper on validation has been published, and is cited as *Madden JM, Meza E, Ewen M, Laing RO, Stephens P, Ross-Degnan D. Measuring medicine prices in Peru: validation of key aspects of WHO/HAI survey methodology. Rev Panam Salud Publica. 010;27 (4):291–9.*



The cost analysis aimed at capturing the facility operating costs in providing services and these costs were allocated as per the cost center at which they were incurred. A specific objective of the costing exercise was to estimate total cost, unit costs and the cost of HIV counselling and testing, tuberculosis (TB) diagnosis and treatment, malaria treatment, family planning, antenatal care, safe male circumcision, and prevention of mother to child transmission (PMTCT). The variations in facility costs and prices based on location (urban/rural), type/level of health facility were also examined.

Economic costs and not financial costs were captured. Economic costs include the estimated value of goods and services for which there are no economic transactions. Economic costs represent an opportunity cost of an input/resource. It thus includes costs such as volunteer labour and donated goods. This is different from financial costs which only represent the actual expenditure on goods and services purchased.

A mixed approach of both micro costing and step down costing was applied in order to answer the study objectives. The mixed approach allowed analysts to tailor the cost measurements towards the assessment objectives. The costing component of the study was retrospective considering costs incurred by the health care providers in the calendar year 2013.

2.3.2 The cost lines

- *Personnel:* The cost of personnel included the costs of both the permanent staff and volunteers if any were used. The costs obtained were based on the salaries and allowances for the staff. For the volunteers the cost of their services was valued based on stipend if they received any or the average daily wage for the most common economic activity in the area for those that did not receive any payment. To allocate costs of personnel to the various activities (malaria treatment and diagnosis, male circumcision, TB treatment, safe male circumcision etc.), number of visits reported for activity was calculated in relation to total facility visits.
- *Equipment and furniture:* All the major equipment and furniture present in the facility used in health service provision were quantified and appropriate valuation based on the replacement price attached to the equipment. To obtain the annual economic cost of the equipment, annualisation was done (annualisation of the capital costs is described further below).
- *Vehicles:* The cost incurred by the facilities that accrues to vehicles was captured based on the type of the vehicle, frequency of use and the costs involved in maintaining the vehicle. The replacement price of the vehicle was used to obtain the annual economic cost of the vehicle.
- *Transportation:* The costs incurred by the facility in carrying out its activities particularly those where the facility vehicle was used were captured. Transport costs included costs incurred in picking up drugs/supplies, and transportation for outreach activities. Critical care was taken to ensure that there was no double counting from the costs already captured.
- *Drugs and medical supplies:* Cost of drugs and related supplies for the costing period of interest was obtained by quantifying the drugs and supplies used in the period of interest and the prices.
- *Cost of buildings:* The cost of the building was computed based on the type of building and size. Replacement prices were obtained for unit cost per square meter of the building. For rented buildings, the monthly rental value was obtained which was used to generate the annual rental value. Allocation of building costs to different programs/activities depended on the space by each of these programs/activities.
- *Utilities:* The costs of utilities such as communication, power, and water were captured based on the expenditures by the facilities as obtained from the facility records. As there are variations over time, an average of three months was considered for the costing period.

-
- *Other costs*: The other costs incurred by the private facilities that were not included in the list above were also captured based on their relevance and whether their percentage contribution to total facility costs was relevant. Given the diversity of private health providers and subsequently the variation in their cost structures, a scoping visit was made to some of the sites to inform the final design of the costing questionnaire/tool.

2.3.3 Cost of health care

- a) *Safe male circumcision*: The cost components included time by the health worker, cost of equipment and the supplies including consumables such as the gloves used in the provision of male circumcision at the facility. Apart from drugs and supplies for which the ingredients approach was used to obtain cost for a single visit, other cost components were based on a step down cost allocation of total facility costs. Shared costs were allocated based on the proportion of male circumcision clients compared to total outpatients.
- b) *Malaria diagnosis and treatment*: This involved capturing provider costs incurred for malaria diagnosis and treatment at facility level for an outpatient visit. The costs included consultation, tests and medication. As with SMC above, drugs and supplies specific for a visit were costed using an ingredients approach while the other facility costs necessary for malaria diagnosis and treatment were generated using a step down approach. Allocation was also according to malaria diagnosis and treatment outputs relative to other facility outputs.
- c) *TB diagnosis and treatment*: The costing approach used for malaria was used for capturing the costs of diagnosis and provision of care for TB patients. Though TB drugs are provided free of charge to patients, costs incurred by the government through the MOH and development partners were also captured since the study was interested in economic costs.
- d) *HCT, antenatal care and prevention of mother to child transmission*. The costs incurred in providing the HIV counselling and testing, ANC and PMTCT were also computed based on the ingredients in terms of the drugs and supplies needed to provide each of these services. The shared costs were then allocated to each of these services based on the facility outputs for each service relative to total outputs.

2.3.4 Annualization

Annualization was done to obtain the annual cost associated with use of a capital good. For the case of financial costs (which are not the interest of this study), annualisation would have been done by dividing the total cost of the commodity (i.e. the replacement price) by the number of useful life years of the good (i.e. straight line depreciation). For economic cost (used in this study), the annualization also considers the discount rate for the commodity. The annuity factor which is used to annualize

capital goods is $1/(1+r)^n$ where r = discount rate, and n = number of years of useful life. The annualized cost is obtained by multiplying the cost of the good such as building by the annualization factor. Equipment, buildings and vehicles had different annuity factors depending on useful years. A discount rate between 3% and 5% was used as has been applied in previous studies in similar settings.

2.3.5 Unit prices

From the cost items/activities whose costs were to be generated, various data sources were relied on. The unit prices used in the costing were based on the replacement prices of the commodity for which the commodity can be purchased currently and not the historical price when the commodity was purchased or its current value.

2.3.6 Sensitivity analysis

One-way sensitivity analysis on key variables was done within plausible ranges to find out the robustness of study estimates for the different programs. This was done for discount rates used for annualization.

2.4 Selection of medicines for price component study

A list of medicines and health supplies for the price component study was developed in discussion with the USAID/Uganda Private Health Support Program team. The list considered commodities required for HIV counselling and testing, tuberculosis (TB) diagnosis and treatment, malaria treatment, family planning, antenatal care, safe male circumcision, and prevention of mother to child transmission (PMTCT).

Data collection begun at the central level where the study team gathered information on national policies that affect pricing of health services. It included:

- Information on import tariffs on finished products, including exemptions for particular products and for certain buyers;
- Economic charges incurred in importing pharmaceuticals and health supplies, such as charges for letters of credit at the central bank or charges for foreign currency transactions;
- Policies on taxes levied on medicines, both along the supply chain and to the final customer;
- Policies that control mark-ups in the supply chain;
- Policies on quality assurance, as set by the Ministry of Health, and associated charges for any required quality control tests;
- The entry points of imported medicines and health supplies into the country as well as the port fees and the costs for customs clearing that are incurred.

The second part of the study comprised of collecting the actual price components of selected medicines as they moved along the supply chain. Since there are many possible distribution routes and intermediaries, the study begun at the end of the supply chain (dispensing side) and tracked each medicine backwards to the beginning (manufacturer/importer). Medicines and health supplies for selected conditions of PMTCT, TB, FP, ANC, and malaria were tracked.

At the dispensaries or private retail side, information on procurement price and dispensing /final consumer price, was identified for each medicine. Any mark-ups, taxes/license fees and dispensing fees were noted. Once all dispensing points were visited, wholesaler information was aggregated to identify which wholesalers may be interviewed. Information on wholesale mark-ups, local distribution costs and any taxes collected was collected. At the wholesalers, the source of supplies was identified as the international suppliers or local distributors. The team visited as many of the supply chain stages as possible, and gathered as much information on the price components as could be found.

The data collected on the components of medicine and health supplies prices was analyzed according to the five common stages of the supply chain supplies traverse as they move from manufacturer to patient:

- Manufacturer's selling price + insurance and freight (Stage 1);
- Landed price (Stage 2);
- Wholesale selling price (private), Joint Medical Stores price (mission) (Stage 3);
- Retail price (private) or dispensary price (public) (Stage 4); and
- Dispensed price (Stage 5).

2.5 Data collection

2.5.1 Preparatory work

The logistics for the survey included:

- Letter of authorisation and introduction to carry out the survey from the MOH.
- Introduction at district authorities.
- An advisory committee was composed to guide study process: review of tools, training of field team, leading of pre-test and field test, review of reports.
- Survey tools were adopted including the costing tool, health facility medicine price component tool from WHO/HAI methodology⁵, key informant interview guides, and FGD guides

⁵Measuring medicine prices, availability, affordability and price components 2nd edition. (2008, January 1). . Retrieved April 15, 2014, from www.haiweb.org/medicineprices

An operational manual was developed to direct the field team and to stipulate the standard operating procedures, interview schedules for respondents, and communication tools to guide the interaction with the policy makers at the national and local government levels.

2.5.2 Development and pretesting of survey tools

Survey tools were developed and discussed with USAID/Uganda Private Health Support Program for adoption. The tools were pretested in selected community and health facilities to ensure they met program objectives.

2.5.3 Development of data processing system

A standardized WHO/HAI workbook was adopted for measuring medicine price components. For measurement of costing quantitative data, the statistician developed an Epi Info package for data entry and analysis.

2.5.4 Training of data collectors

Prior to data collection, all survey personnel participated in training and field tests for two days between 14th and 15th April 2014.

2.5.5 Field data collection

Data collection took place between 16th and 21st April 2014 at two levels:

- At the first level (central level), data was collected by the study team gathering information on national policies that affect pricing of health services and also on mark-ups at importer, manufacturer and central wholesaler level. Central level data was collected by the study technical team.
- At the second level (district level), costing of health services was done at facility level as well as pricing for medicines and health services. A team of two people per district covered a total of nine facilities and one FGD. Qualitative data was collected using an interview guide for key informants and a discussion guide for FGDs. The proceedings of the interviews were recorded.
- Data collected from patients was based on how affordable the services in the PHP facilities were to the community. Barriers to service delivery were systematically analyzed by interviews from consumers.

2.6 Quality control measures

Multiple quality assurance processes were used. The technical and coordination team in collaboration with the USAID/Uganda Private Health Support Program Monitoring and Evaluation team provided the overall quality assurance to review the survey process, tools and reports.

The developed/adapted survey tools were pretested before survey and data collectors were trained. Data collectors also took part in a field test at a private health facility in Kampala on 15th April 2014. Each district team on a daily basis cross checked all collected data for completeness, legibility and consistency and was in constant communication with a survey manager. The survey manager also validated data collection in 10% of the sample outlets by physical visits and phone calls.

2.7 Data entry and analysis

Quantitative facility data was captured using EpiData and analysed with Stata 11.0, MS Excel software and an adopted WHO/HAI workbook. Two data entry clerks worked with a statistician to ensure quality data entry and analysis. Qualitative data in form of tape-recorded interview discussions underwent transcription according to themes of the study. It was also subjected to content analysis.

2.8 Data management and confidentiality

Both hard and soft data was managed centrally at the HEPS Uganda secretariat.

Informed consent was sought from respondents of the survey. Names of respondents were kept confidential. The research team was composed of trained professionals who took care not to harm the study respondents in any way.

2.9 Limitations of the study

- a) The case study of 4 districts involved in this study may not provide a nationally representative sample of all the 111 districts and one City Council Authority (Kampala).
- b) The official health facility inventory of MoH was not up-to date in terms of number of private facilities.

3. RESULTS

3.1 Descriptive statistics

A total of 36 private facilities were studied. These included hospitals, HC IVs, HC IIIs and HC IIs. The composition of the total facilities studied by level is summarised in Table 1.

Table 1: Summary of facilities studied

Facility type	Frequency	Percentage
Hospital	4	11
Health Centre IV	3	8
Health Centre III	11	31
Health Centre II	18	50
Total	36	100

Table 2 shows a disaggregation of the facilities studied by ownership and location. The majority of the facilities (32 out of 36) were private-for-profit while four were private-not-for-profit (PNFP). Across the four districts, an equal number of facilities was studied. There was however, variation in district-level composition in terms of facility location, types and levels. With regards to location of the facilities, 22 out of 36 facilities were in rural areas while the rest (14) were in urban areas.

Table 2: Ownership and location of the health facilities studied

	Hospital	Health Centre IV	Health Centre III	Health Centre II	Total
Ownership					
NGO/PNFP	1	0	3	0	4
PFP	3	3	8	18	32
Total	4	3	11	18	36
District					
Jinja	0	1	2	6	9
Kyenjonjo	0	1	4	4	9
Mbarara	3	0	4	2	9
Rakai	1	1	1	6	9
Total	4	3	11	18	36
Location					
Rural	1	2	8	12	22
Urban/Peri-urban	3	1	3	6	14
Total	4	3	11	18	36

Availability of services across the facilities

Malaria diagnosis and treatment was the only service available in all health facilities surveyed except one HC II. TB diagnosis and treatment was available in all hospitals and HC IVs, but was not provided in the HC IIs. Only one quarter of HC IIIs provided the service while no HC II did so. Respondents noted that TB treatment was concentrated in the public sector and restricted to higher levels of care in the private sector. The non-availability of some services at lower levels could be attributed to lack of key inputs necessary for the provision of these services such as staff and equipment. It can be inferred that providers at the lower levels probably considered it unprofitable to provide certain services that were widely available for free in public health facilities.

Table 3: Availability of selected services for each facility type (%)

Services	Hospital (n=4)	HC IV (n=3)	HC III (n=11)	HC II (n=18)
HCT	75	100	100	83
ANC	100	100	73	56
PMTCT	75	67	46	24
Family planning	100	100	91	83
TB diagnosis & treatment	100	100	25	0
Malaria diagnosis & treatment	100	100	100	94
General laboratory services	100	100	100	72
Safe male circumcision	75	100	64	50

Summary of health facility outputs

Table 4 shows a summary of facility outputs for all the facilities. “n” represents the estimated number of facilities which provided outputs for a given service. Further disaggregation of reported outputs for the facilities studied for each facility type is presented in the annex. Malaria tests contributed the greatest proportion (almost 50%) of total facility outputs (79,988 out of 161,886). This was followed by HIV tests representing about 16% of facility outputs (25,785 out of 161,886). TB tests constituted the least out of the total outputs. Only 13 out of the 36 facilities reported outputs for TB testing. The results show that 33% of tests for malaria were positive compared to 5.5% positive tests for HIV. The findings agree with other national surveys that malaria is the highest cause of morbidity in the country and therefore contributes to the highest costs to health facilities.

Table 4: Summary of annual facility outputs

Annual facility outputs	Number of facilities (n)	Total
Total outpatient visits	36	161,886
HIV tests carried out	29	25,785
HIV positive cases	27	1,418
Pregnant women tested for HIV	20	6,972

Pregnant women positive for HIV	15	295
Total TB tests	13	946
Total TB positive patients	11	53
Total malaria tests	33	79,988
Total malaria positive tests	30	26,105
New ANC Attendances	22	7,082
ANC Re-attendance 4th visit	22	4,454
Number of men circumcised	21	2,556

*n = Number of facilities that reported on a given output

3.2 Health facility operating costs

3.2.1 Facility economic costs

As presented in Table 5, the average annual economic costs of a private health facility varied between UGX 50,223,113 (USD \$20,089) for the lowest-level facilities to UGX 790,847,320 (USD \$316,339) for hospitals. As expected, the variation in costs is dependent on the type of facility with the higher level facilities which usually operate on a large scale having higher average costs. A table of all the facilities studied and their total economic costs with the constituent components is presented in the annex.

Table 5: Average annual economic costs per facility type (UGX)

Facility type	Number	Total cost (UGX)	Average cost (UGX)
Hospital	4	3,163,389,280	790,847,320
HC IV	3	1,021,726,212	340,575,404
HC III	11	1,385,563,845	125,960,350
HC II	18	904,016,035	50,223,113

An allocation of the facility costs to the different cost centres/line items shows that these line items vary in terms of their contribution to annual economic costs of a facility. Table 6 presents average annual economic cost per line item for each facility type studied. The line items considered are personnel, drugs/medicines and supplies, utilities and transport, equipment and furniture, and buildings and vehicles. From the results across all the facilities, there is variation in the contribution of cost line items to total facility costs and this varies across the different facility types. Two items, personnel and drugs/medicines and supplies, collectively constituted the highest average annual economic cost for all facilities irrespective of facility type and size. A further illustration of the importance of different cost items to understand which the major cost drivers were is illustrated using percentages (Shown in Table 6 and Figure 1).

Table 6: Components of the annual cost per facility type - Average (UGX)

	Hospital	Health Centre IV	Health Centre III	Health Centre II
Number of facilities (n)	4	3	11	18
Personnel	110,129,952 (14%)	108,398,059 (32%)	44,459,455 (35%)	16,752,067 (33%)
Drugs and supplies	255,698,432 (32%)	99,200,000 (29%)	34,981,112 (28%)	16,253,312 (32%)
Utilities and transport	137,078,374 (17%)	18,736,400 (6%)	8,620,714 (7%)	2,545,389 (5%)
Equipment and furniture	77,293,812 (10%)	58,228,375 (17%)	11,495,949 (9%)	3,660,203 (7%)
Buildings	160,000,000 (20%)	53,000,000 (16%)	23,363,637 (19%)	9,494,445 (19%)
Vehicles*	50,646,750 (6%)	3,012,571 (1%)	11,144,775 (2%)	3,902,650 (3%)
Total cost	790,847,320	340,575,404	125,960,350	50,223,113

*Average obtained for only facilities which owned vehicles

From Figure 1, it can be deduced that while the cost of utilities and transport was significant for hospitals (in terms of percentage composition to total), it was less significant for other facility level. When compared to other facility costs, buildings constituted an almost similar proportion from HC II to IV with the proportion in hospitals being much higher.

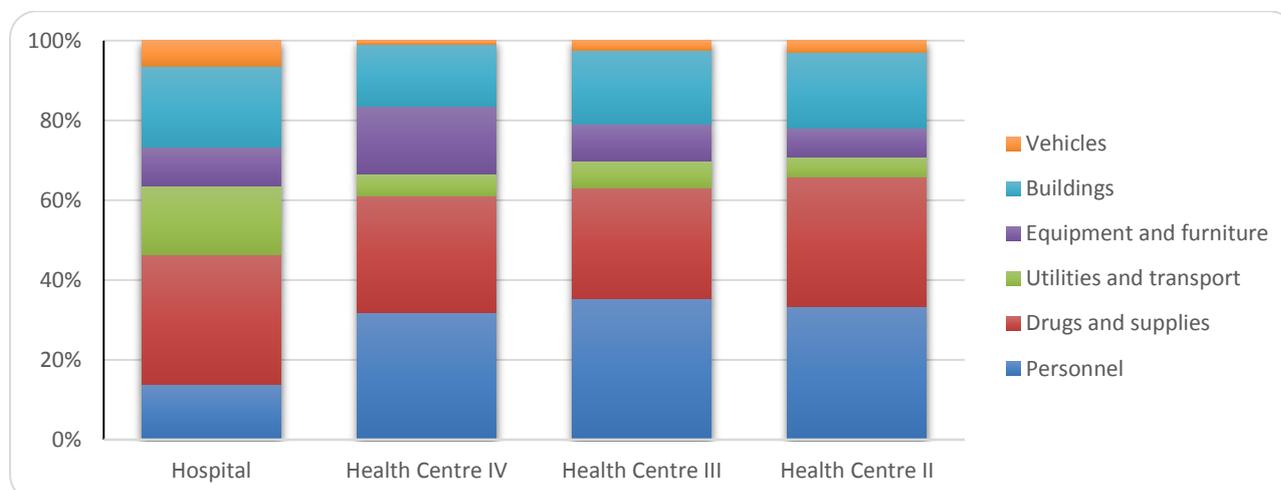


Figure 1: Composition of cost components by line item for each facility level

3.2.2 Variation in health facility costs by location (urban /rural)

When the different facility types are disaggregated by location (rural and urban), the average economic facility costs for the different types of facilities show a variation according to location. However, this variation does not follow a uniform pattern across the facility types. Apart from hospitals and HC IIIs, the average economic cost was higher in rural areas when compared to urban areas. This was due to the higher relative costs of operation, utilities and capital costs (specifically

equipment and buildings) in the private facilities in rural areas than those in urban areas as shown in Table 7. The comparison of the costs for hospitals is limited, given that only one hospital was studied in a rural area and this hospital had just began its operations and had lower expenditures on components such as drugs, personnel, utilities and vehicles - which are typically higher due to the complexity of operations at this level of care.

Table 7: Variation of average annual facility economic costs per facility level (rural versus urban) - UGX

Facility type	Location	
	Rural	Urban
Hospital	286,467,518	958,973,921
HC IV	404,861,444	212,003,324
HC III	107,732,978	174,566,675
HC II	54,047,653	40,279,308

Figure 2 below shows that personnel, drugs and supplies are the dominant costs irrespective of location or level of facility. However, when one considers the composition of the cost components for rural and urban facilities irrespective of type, most of the rural facilities did not incur costs on vehicles (both capital costs of purchase and maintenance). Among the rural facilities that incurred no costs on vehicles, there was a considerably higher proportion of costs for utilities and transport when compared to total facility costs. This indicates that facilities with no vehicles still incur significant costs in transport expenses.

Rural HCIVs incurred considerably higher costs on drugs and supplies when compared to the urban facilities. It is probable that the urban facilities accessed cheaper sources of supplies (laboratory and other supplies) but also rural facilities incur extra transport costs. However, this finding is not conclusive given the sample size for HCIVs (2 in rural and 1 in urban respectively).

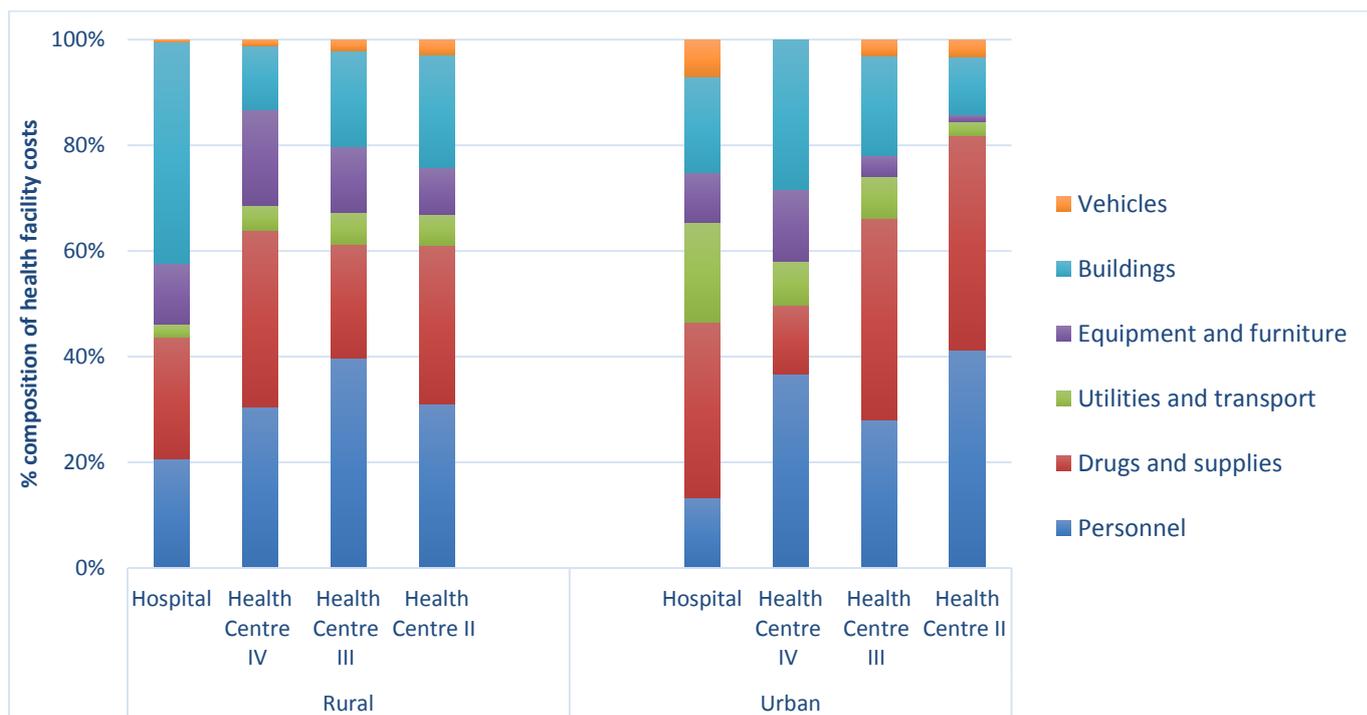


Figure 2: Composition of cost components by line item for each facility type - All facilities

3.3 Cost of health services

3.3.1 Cost of outpatient visits

For a given health service visit, the unit cost varies by facility level (Table 8). Unit costs are dependent on total cost of inputs for providing the service at the facility and the total outputs of the given service (visit) produced by the facility. For the services such as HCT and malaria treatment and diagnosis, higher level facilities have higher unit costs for providing the services because they use more expensive inputs (e.g. higher staff cadres whose salaries are higher) while lower level facilities may use lower staff cadres to provide a similar service. Higher facilities (hospitals and Health centre IVs) have been shown to perform better in terms of provision of items that support quality of care.⁶ The same applies to other inputs such as utilities and equipment. Disaggregation of the unit costs for each of the cost components is presented in section 3.2.2.

For services such as ANC and SMC where lower level facilities are shown to have higher unit costs for providing the service, this might be a result of lower outputs for a given level of fixed costs required to provide such a service. This implies that these lower facilities are facing diseconomies of scale in providing the specific health services. The estimated average unit cost for an outpatient visit for SMC was lower than the UNAIDS estimate of around \$30. This is because the estimate presented in this study does not include the non-surgical procedures such as counselling and testing and also

⁶ MoH, 2007. National Service Provision Assessment Survey. Pg 237-8

does not include the cost of follow up visits or any treatment for complications which may arise such as haemorrhage and sepsis. These costs associated with various follow up visits have been shown to constitute a significant cost for SMC⁷.

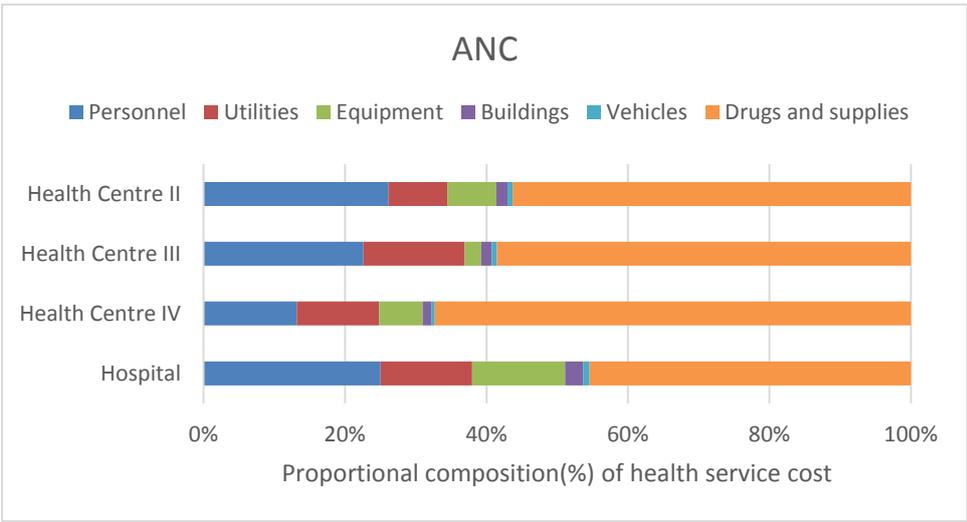
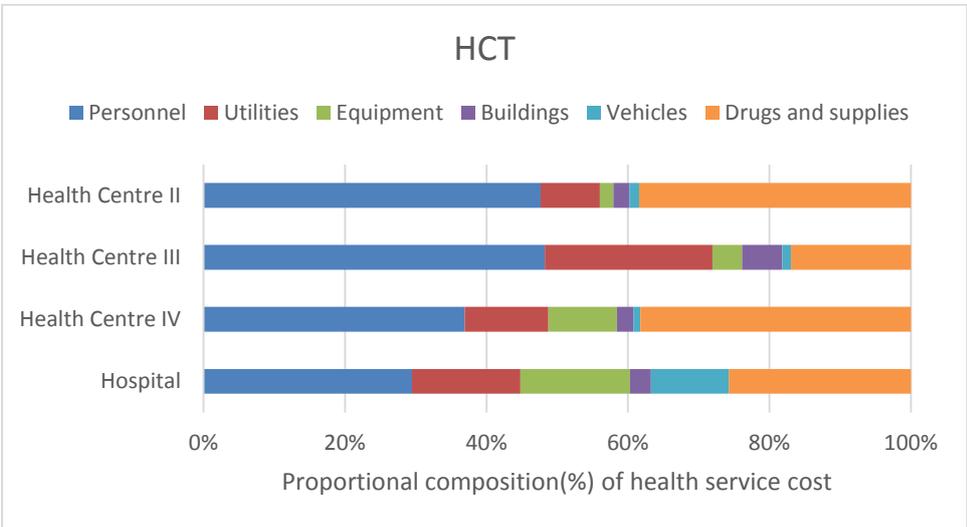
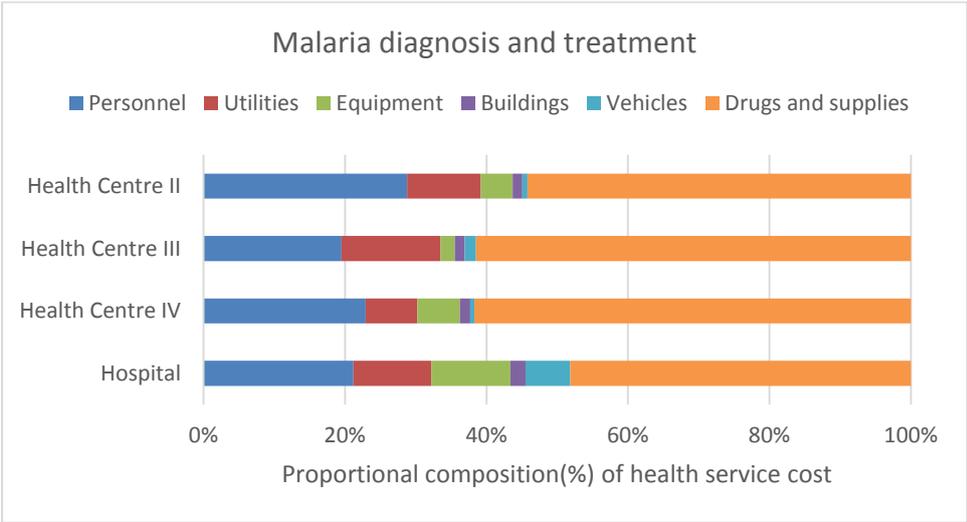
Table 8: Unit costs for an outpatient visit for services per facility level (UGX)

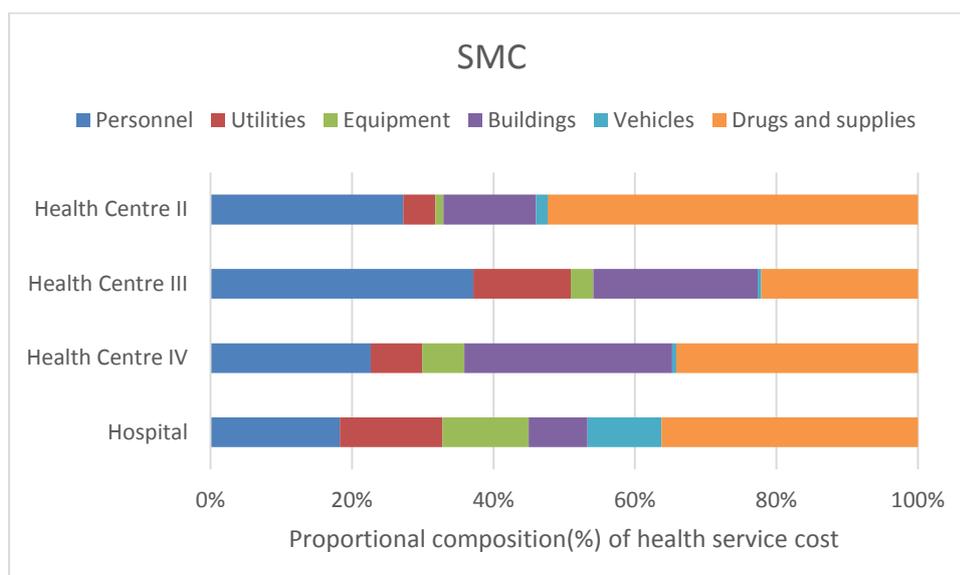
	Hospital	Health Centre IV	Health Centre III	Health Centre II
HCT	9,622	6,228	8,782	6,654
ANC	11,347	10,289	9,631	12,491
Malaria treatment and diagnosis	14,656	10,542	11,632	10,607
SMC	11,215	10,780	14,406	9,940
TB treatment and diagnosis	7,824	7,968	9,993	N/A
PMTCT	43,953	42,517	43,440	42,037

3.3.2 Composition of the cost components for cost of a health service visit

This section presents the percentage composition of the unit costs of the health service visits presented above. The percentage composition of health service cost illustrates the key cost drivers for the services provided for the different levels of care. Similar to the overall facility cost profiles, the key cost driver for particular health services was the cost of drugs and the cost of personnel. However, there are variations in terms of the percentages for each component for a given service. For example in malaria treatment and diagnosis, drugs constitute around 50%-62% of the total cost component for the various levels of care. This implies that putting in place mechanisms aimed at lowering the cost of these drugs to the provider would significantly reduce the cost incurred in providing these services. Predictably for HCT, the key cost component is personnel that contribute a higher percentage than drugs and supplies (HIV test kits) although the two still contribute the most significant proportion of the cost of the service.

⁷ In Swaziland communications, testing and pre-and post-operative counseling were found to constitute a significant cost after the surgical procedure.





3.3.3 Prices of health services

The survey collected prices charged for the services considered above. The average price per facility type for each of the services is indicated in table 9. There is a clear variation in the average prices charged for the services although this variation in average price does not seem to depend on the type of facility. The only health service where variation in prices was highest in hospitals and decreased progressively up to health centre IIs was malaria treatment and diagnosis. It is also worth noting that for services whose provision is subsidised especially with regards to drugs component, their cost is markedly higher than the price. However, the result of the prices show that while there is some relationship between the cost and the price at facility level in that, the most costly service (in terms of inputs) has a higher price, there are various factors that influence the pricing of health services at facility level. These are examined extensively in the text below which looks at factors that private providers consider in pricing of services.

Table 9: Average price for an outpatient visits for services per facility type (UGX)

	Hospital	Health Centre IV	Health Centre III	Health Centre II
HCT	N/A	5,667	4,000	4,100
ANC	20,000	5,333	6,000	8,200
Malaria treatment and diagnosis	31,500	24,500	15,929	11,818
SMC	80,000	40,000	132,000	30,000
TB treatment and diagnosis	5,000	7,500	17,000	N/A
PMTCT	0	0	0	0

3.3.4 Comparison of unit cost and prices (UGX)

From comparing the average service cost (Table 8) and average prices (Table 9) charged for services at different facilities, it was found that the services that are subsidized such as PMTCT, where drugs and supplies (which are the largest cost component) are provided to the facilities free by government, facilities were providing also providing a free service.

However, for some services such as malaria diagnosis and treatment, the price was markedly higher than the cost especially at higher level facilities (Figure 3). This may be due to higher cost inputs such as higher level staff cadres at the higher level facilities.

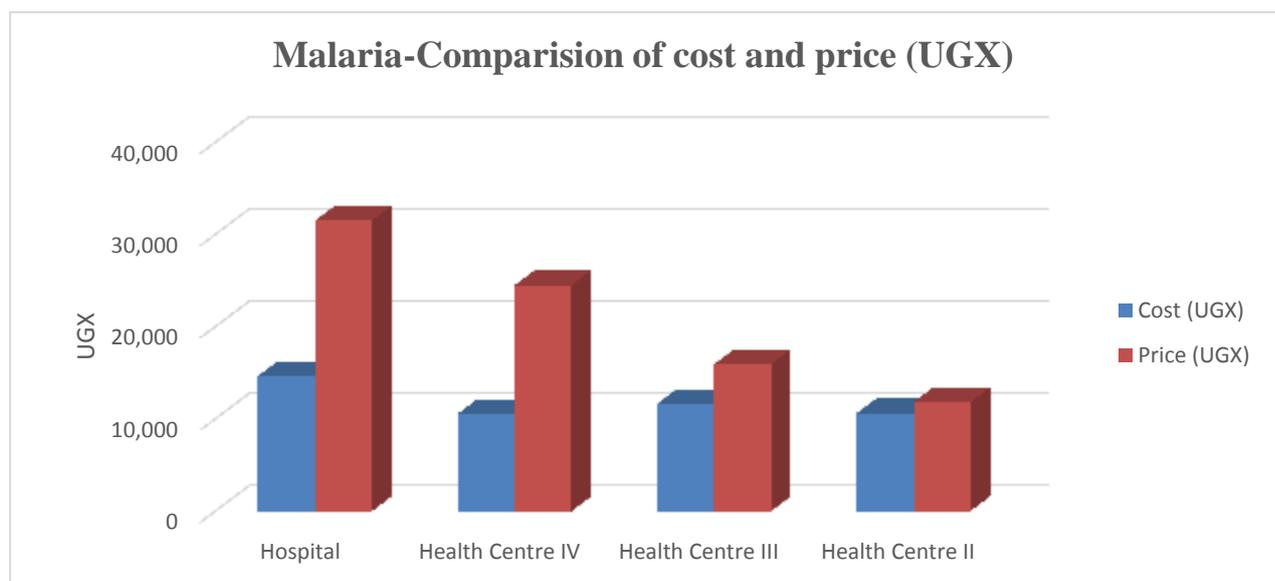


Figure 3: Comparison of cost and price of malaria diagnosis and treatment

3.4 Factors private providers consider when pricing healthcare services

Service providers participating in the survey cited a range of factors they consider while pricing their services, including consultation fees, drugs, laboratory services and others. The cost price was prominently mentioned in the case of medicines and laboratory services (laboratory reagents). Charges for other services and the mark-up on medicines were reported to be inclusive of staff salaries, rent, utilities and other costs of maintaining the facility and a small profit. However, none of the respondents could provide a systematic method used in determining the mark-up, and none could provide or match a breakdown of the mark-up to specific cost centres. Factors in setting prices of health products and services appeared to be the purchase price (especially in the case of medicines), consumers' ability to pay and the price of similar products and services in the market. Some of the providers reported that the low prices they charged, because their clients were too poor to afford, were not optimal to enable them recoup their investment.

“We conduct informal market surveys to see how our fellow private practitioners sell similar products and services and we adjust ours accordingly... indirect costs like furniture are not

included but laboratory equipment is considered as well as lab supplies to recover the initial costs, staff salaries and rent,” – Clinic In-charge, Jinja

“We do not consider the indirect costs (in pricing services) because if we did, the treatment would be very expensive and the patients would run away. Workers’ salaries are considered only partially. Even if the purchase prices change, we try to smoothen the adjustments because you won’t be able to retain any customers if your prices fluctuate... It’s about using what we have put up to survive, there is no money in this work,” – Owner of private health unit in Jinja

“There is no way we can charge things like furniture on the treatment given... It is difficult to get the amount due to furniture that you need to include in the charges for each service. As for salaries, we consider because workers must be paid at the end of the month,” Facility In charge in Jinja

The findings indicate that there is no regular period over which prices of services and products are reviewed. Some reported that they reviewed prices when the cost price of a supply, for example, drugs went up.

“I rarely review prices. For example, for the last three years we have been charging an HIV test at Ushs 7,000” – Clinic In-Charge, Jinja

Record keeping was found to be a major weakness among private service providers. Very few service providers had a computer for their records and even the paper format in form of books was not organized. The only facilities that summarised attendance by condition were recipients of primary healthcare (PHC) grants from the local governments which require regular attendance reports. Predictably most facilities did not know whether they were economically solvent or not because of a lack of separation of resources between the facility and the owner. Many facility owners were not in a position to know if operations were profitable or not to equitably price services.

“For me I don’t care about the profit I may or may not be getting because I am not paid. If you put up your own business, do you need to be paid? By who?” – Owner, private health unit in Jinja

For instance in Rakai, the proprietor of a newly constructed nursing home, which is transitioning into a hospital, reported that the buildings alone had been valued at UGX 2.5 billion (USD \$1,000,000), which wouldn’t be recouped in the near term.

3.4 Medicine price components

Uganda has low local pharmaceutical production capacity with imports accounting for 90% of medicines on the market⁸. Most of the medicines are imported from China, India, Egypt, England, Germany and Kenya. There are no taxes on imported medicines in the region and regulators are currently harmonizing the quality requirements such that medicines which are registered in one East African country can be recognized in another⁹. The medicine price survey documents mark ups by importers, wholesalers and other middlemen in the medicines supply chain before the medicines reach the final consumer. There are importers who are local technical representatives of manufacturers in different countries. The economy is fully liberalized and there are no policies that set the wholesale and retail mark ups. There have been discussions and recommendations registered in the National Pharmaceutical Sector Strategic Plan II to impose a policy of labelling the packages with the maximum retail and wholesale prices but the legal regime has never been implemented.

Overview of price components

Imported products incur banking fees (letters of credit), Insurance and Freight. At the National Drug Authority, the importer pays a verification fee which constitutes 2% of the Free on board (FOB) price. There are no import tariffs on medicines. Imported products pay an insurance and freight average of 8% by sea and 20% by air. Clearing charges are between 2% and 5%.

Importers/Local Technical Representative (LTR)

These are representatives of manufacturers and are responsible for quality issues of the products on market. They have special arrangements with manufacturers and get better prices compared to other importers of the same products in Uganda. They also access credit facilities in form of advance stock to be paid after sale, promotion stock and capital to support marketing of products. They are responsible for follow up and registration of new products by the NDA. They imposed a mark-up of 10% - 20% on imported products.

Wholesale Stage 1

This constitutes mainly importers who purchase medicines from the LTR and sometimes import for themselves. They impose a mark-up of 20% - 40% on different products depending on specific product characteristics such as turnover rate, registered similar products on market, purchasing power of customers and the packages of the product.

⁸⁸ Global UNIDO Project (2010). Pharmaceutical Sector Profile: Uganda

⁹Launch of the East African Community (EAC) Medicines Registration Harmonization (MRH) Project. (2012).. Retrieved May 3, 2014, from <http://www.nepad.org/humancapitaldevelopment/news/2648>

Whole sale stage 2

This constitutes wholesalers based at the districts and regional headquarters. They purchase medicines from the capital city and sell to retailers, clinics and hospitals at the district and rural levels. For locally manufactured products, it constitutes agents that are mostly representatives of manufacturers. This was the most highly competitive stage of the medicines supply chain and the mark ups have been declining over the past 10 years. They currently add a mark-up of 5-10% on products sold to their customers.

Retailers

These include community pharmacies, hospitals, drug shops and facilities that sell medicines to the final consumer. Compared to wholesalers and importers, these facilities, excluding hospitals, have less working capital and have overheads which have to be covered by the mark ups. Administrative overheads constitute the highest expenditure for such health facilities and many struggle to break even. For the pharmacies and drug shops, the working capital is tied up in medicine stocks. Retailers prioritize medicines to be purchased and sold mainly based on turnover and ability to generate returns quickly to purchase new products. They impose a mark-up of 50% - 600% depending on the products and their package sizes.

Figure 4: Summary of supply chain mark ups

Stage in supply chain	Add-on	Imported Product	Local Manufactured
Stage I: Manufacturer	Insurance and freight	7-15%	N/A
Stage II: Importation	NDA Verification fees Clearing and Forwarding Importers mark up	2% 2-5% 7-20%	N/A
Stage III: Wholesale	Wholesale mark up (Kampala) Wholesaler mark up (Upcountry)	6-25% 25%	15-25% 25%
Stage IV: Retail	Retailer's mark-up	50-600%	50-600%

Data example

Exchange rate: US\$ 2500 to US \$1 (Prices shown in shillings).

Private sector

Table 9: Amoxicillin 250mg (100 capsule pack), generic, locally manufactured

Stage	Component	Charge basis	Charge value	Total (UGX)	Percent cumulative mark up

1	Manufacturer Selling Price (MSP)			2255	
2	Local transport	2.0%	45	2300	2%
	Wholesale procure price			2300	
3	Wholesale mark-up	8.7%	200	2500	11%
4	Retail mark-up	300%	7500	10000	313%
Final cumulative % Mark up and Price				10000	313%

Table 10: Amoxicillin 250mg (100 capsule pack), generic, imported

Stage	Component	Charge basis	Charge value	Total (UGX)	Percent cumulative mark up
1	FOB			1090	
2	Local tech rep/ importer	10%	109	1199	10%
	Pre-shipment inspection (SGS)	2%	24	1223	12%
	Letter of Credit (LoC)	2%	24	1247	14%
	Insurance	2%	25	1272	16%
	Sea freight	8%	102	1374	26%
	Clearing	2.5%	34	1409	29%
	Local transport	2.5%	35	1444	32%
	NDA	2.0%	12	1455	34%
3	Wholesale level 1/importer mark up	10%	145	1600	47%
4	Wholesale level 2 mark up	212.5%	3400	5000	359%
5	Retail mark up	100%	5000	10,000	459%
Final % Mark up and Price				10,000	459%

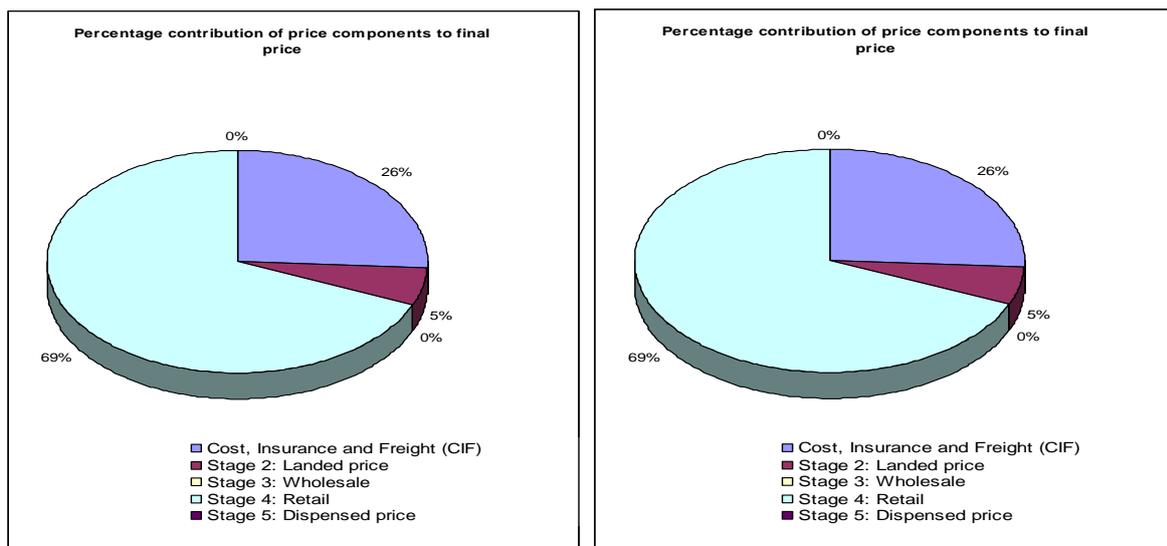
Note: The wholesale stage may have more than one level. The importer may wholesale but most times sells to other wholesalers.

Medicine price components comparison between urban and rural facilities

The price components of medicines in the private sector do not vary markedly between the urban and rural areas as shown in the figure below for amoxicillin capsules. This may be due to less purchasing power/capacity for consumers to pay for the services in rural areas despite extra costs incurred in form of transport by providers.

Urban (Mbarara)

Rural (Kyenjojo)



Factors considered when pricing medicines

Turnover of products and frequency of use

According to key informants, medicines that are used to treat common diseases such as malaria and common infections tend to move faster and have a higher turnover rate. These products had almost similar mark ups at all levels of the supply chain and the mark ups were lower than medicines used to treat chronic diseases such as hypertension and diabetes. This is due to the fact that many facilities stocked these commonly-used medicines and the economies of scale favoured a decrease in prices. In lower health facilities and hospitals, these diseases contributed to high admission rates and the mark ups were also lower.

Purchase and market price of the products

Products that are purchased expensively from wholesalers such as innovator brands did not attract higher mark-ups across the supply chain because the already high prices could lead to unaffordable products. In contrast the generics which were purchased at cheaper prices at wholesale level tended to attract the highest mark ups at retail level. Some consumers associated cheap products with poor quality, therefore facilities increased the mark ups to ensure that prices were not significantly cheaper than those of innovator brands.

Registered brands of the product

Products with many registered brands at the NDA tend to attract lower mark ups than those with fewer registered brands. Manufacturers and distributors of these brands transport these products to the districts and regional centres and sometimes to hospitals. This reduces the overhead costs to the facilities and hence lowers the final consumer price. Over the counter (OTC) products such as pain killers which are easily accessed at non health outlets tended to attract the lowest mark-ups.

Overhead costs and nature of the product

In general, as opposed to drug shops and pharmacies, lower health facilities and hospitals imposed the highest mark-ups for all products. This was attributed to the high overhead costs of running the facilities (including the laboratory) and the number of health workers employed. Products for chronic non communicable diseases such as hypertension, diabetes and cancer had the highest mark-ups due to low turnover and high retention of working capital.

Policies on disease management and government subsidy

Disease management programs such as TB, HIV/AIDS, PMTCT, that have government and employer subsidies had stable mark ups. TB medicines were free of charge in all the surveyed facilities that provided care for patients. However at government level, the National Medical Stores (NMS) levied a mark-up of 10% to cater for administrative charges of handling the products. This mark-up is paid by the government and products are distributed to accredited private health facilities free of charge. Commodities for family planning and antenatal care programs had similarly lower mark ups at all levels of the supply chain. This is due to the lower number of patients that access these services in the private sector and higher subsidies by development partners and MOH programs. An example is the voucher program which entitles a pregnant mother to four ANC visits, safe delivery and one post natal care at a cost of US\$1.2 (UGX 3000). These mothers also are given ferrous folic acid tablets.

Social marketing

Social marketing interventions also subsidize commodities for family planning such as condoms, intrauterine devices, and contraceptive pills. These programmes usually institute a maximum retail price.

3.5 Health consumers' ability to pay for private healthcare

Prices of services

The amounts paid for treatment varied considerably across districts but also across different episodes of similar ailments. Standard malaria diagnosis and treatment ranged between \$3.20 \$6.00 (Ushs. 8,000 - 15,000). But in some instances consumers reported paying more than \$40.00 (Ushs 100,000) for treatment of complicated malaria. Safe male circumcision procedures cost between US\$12.00 – \$28.00 (Ushs.30,000 - 70,000).

Consumer ability to pay for healthcare in the private sector

Majority of participants in focus group discussion (FGD) sessions posited that healthcare was a priority and the essence of life, and hence worth every coin they spent on it, regardless of where the money came from. Few respondents reported that they were normally able to afford healthcare. Overall, the understanding of ability to pay appeared to be equated to ability to meet medical bills

whether the money came from ordinary cash savings at hand, from relatives, or from the sale of physical valuables. Each of the health providers interviewed reported they had encountered cases of clients who failed to pay medical bills, with a few reporting that it was a major challenge to the sustainability of their facilities.

“You [see], the whole problem starts with poverty... Mothers come with convulsing children with no money and they can’t pay. And when you ask them why they came without any money, they also ask you, ‘what would I have done?’ you end up discharging them without paying. It is a dilemma,” – In-charge, private clinic in Jinja

Cases of inpatients who escaped from health facilities without clearing medical bills were reported by both health providers and health consumers. For those that can afford, private health facilities were more preferable to public health facilities. It was reported that that customer care and services were better in private facilities than in public facilities, and there were cases of consumers who trekked long distances, bypassing public facilities where services were free, to go to private facilities where they had to pay for care.

“I come from Kyakatuma that is where my home is, and I use Ushs10,000 (US \$4.00) to get to Mutukula from Kyakatuma. There is a government health centre in Mutukula but I cannot go there unless I don’t have money. From Mutukula to here (Kyotera Medical Centre), I use Ushs6,000 (US\$2.40). I will again need Ushs16,000 (US\$ 6.40) to go back. But I have no problem because the care is better here; my patient is improving,” – Female FGD participant who was caregiver of patient at clinic in Kyotera, Rakai

Credit services

Across the four survey districts, private health providers often extended credit services to clients. FGD participants reported that it was common for them to receive treatment on credit. The facilities however considered familiarity and creditworthiness of the healthcare consumer. Full credit facilities were rare with preference for partial payments.

“Sometimes we offer credit if we know the patient, but they still have to make a partial payment and then they can bring the balance later,” – Owner, private health unit in Jinja

Service providers with credit facilities did not have a standard criterion to determine eligibility and credit facilities seemed to be provided on a selective basis. Poor clients were however turned away from the facilities if they had no money. They were expected to seek services from the public sector.

Sale of valuables

Many clients also reported to have sold off valuables, often cheaply, to pay medical bills.

“Sometime back my daughter-in-law was due to give birth and my son did not have any money and I did not have any money either. But good enough I had a goat, the problem is that when

you have a problem no one gives you the market value of anything you sell. At my leisure, I would have got someone to pay me at least 100,000 shillings (US\$40) for that goat, but they paid me only 50,000 shillings (US\$20). In the end it did not matter because the money helped us to pay Kakuuto health centre,” – male FGD participant in Kyotera, Rakai

A female FGD participant in Kyotera, Rakai, reported that she witnessed a neighbour sell a plot of land at just Ushs 300,000 (US\$120) many times less than its estimated value, to pay medical bills. Participants seemed to agree that selling pieces of land to pay medical bills was not sustainable in the long run.

Health insurance

A number of facilities reported partnerships with at least one insurance scheme. The main challenge for insurance providers was that the turnaround time for reimbursement of invoices was more than one month. None of the consumers participating in the FGDs reported to belong to any health insurance scheme.

Payment by third parties

Another mode payment reported was by third parties, particularly for family planning. Service providers reported that long-term family planning methods, particularly IUDs and implants, were paid for by Marie Stopes at a rate of Ushs15,000 (US\$6.00) per client served, while the client paid Ushs 2,000 (US\$ 0.80).

Challenges in accessing care

The major challenges reported in accessing care in the private sector were: high prices of medicines; long distances to facilities; focus of private providers on money and less on health of clients; incompetent service providers; little stocks of medicines; sale of expired and ineffective medicines; limited diagnostic ability; limited range of services that PHP's provided (cannot handle complicated cases); ineffective treatment and relapses of ailments; and limited infrastructure for inpatient services.

“Transport costs are a problem when you want to see a good doctor; the clinics that are closer have nurses and other young clinicians. The good doctors, the specialist consultants are not common; sometimes you may have to go to Kampala to see a specialist,” – FGD participant in Jinja

Respondents reported that treatment in the private sector was expensive for the ordinary health consumer. One respondent cited the treatment for syphilis which costs Ushs 5,000 (US\$2.00) per

injection. It was also reported that health providers charged expensively for some treatments under the excuse of using expensive and “more effective” drugs from Western Europe.

Health consumers cited numerous cases in which they attended private health units and received care but failed to heal; they claimed to have healed after either a second attempt or after receiving treatment elsewhere. This was reported to be common and to be a major cause of escalating medical bills and making of health care unaffordable. For this reason, some consumers had decided never to go back to certain clinics where they had received unsatisfactory services.

“My child fell sick, and we went to a clinic where we received treatment and paid Ushs20,000. I thought the child would get well because it seemed simple sickness, but when we reached home, the boy became worse off and we rushed him to Bikira where they put him on drip [water] and put him on [gave him] blood and we spent two nights there before he got better. They asked us to pay Ushs. 80,000 which was a lot, but my husband got the money and we cleared the bill. The good thing was that the child healed,” – Female FGD participant in Kyotera, Rakai

“I had a sick child, we went to a clinic and paid Ushs.30,000 (US\$12) and we went back home. The child seemed to have improved at first, but then the following day the kid went down again. We took him to another private clinic, which was bigger. They treated him and asked for Ushs70,000 (US\$28). But we did not have the money. The good thing is that they knew us and accepted Ushs50,000 (US\$20) and agreed to give us time to find the rest of the money. The good thing my husband is a fisherman, he went to the lake and returned with the money and we cleared the debt,” Female FGD participant in Kyotera, Rakai

“I went to a clinic in our neighbourhood and the lady gave some medicine. I went away and when I reached home, I realised the medicine was expired. I didn’t bother going back to complain because she must have done it deliberately. I just went to a drug shop and bought the medicine. I have never and I will never go back to that clinic again,” – Male FGD participant in Kyotera, Rakai

“I went to a health worker who insisted on rehydrating the child yet a neighbour of ours who was a retired nurse had told me the child (was anaemic and) needed blood, not water. I think her aim was to sell the water. When I left her clinic I went to another health unit where they put the child on [gave the child] blood and the child improved. I have never gone to her clinic again, I think she does not care about the life of her customers; she only minds about money,” – Female FGD participant in Kyotera, Rakai

Limited diagnostic ability is a challenge to access to services in the private sector. Health consumers attending FGDs reported that usually, the clinics administer treatments without undertaking any laboratory tests. It was also reported that some providers, including both drug shops and clinics, sell medicines to clients who come asking for specific drugs without offering them a test. Only one health consumer reported being offered a test at a private clinic when she went to buy drugs for hypertension. Responses from other health consumers indicated that this was not a common practice among private health units, especially the small ones.

“I would love to be tested to know what I am suffering from and to help the health worker to know what I am suffering from so that they can give me proper treatment,” – FGD participant in Jinja

“It is important for a patient to be tested before receiving treatment but in many clinics in this place all they have is a thermometer... They use thermometers to fool us because what I know that every living human being has warmth. For me I feel more comfortable being attended to by a clinician who takes off my blood. I went to a clinic where they treated my child and the child did not get better, and some people told me that it seems they treated the wrong illness. I went to another clinic where they tested the child’s blood and gave us treatment. The child got better,” – Female FGD participant in Kyotera, Rakai

It was also noted that private clinics have limited transparency in costing and pricing of their services. The survey team noted that a few of the private health units participating in this survey had some standard charges displayed while some had a price list that they would share with clients interested in knowing charges for specific services, especially diagnostic services. The findings indicate that private health units tend to bill separately for diagnostic services (laboratory fees) and for treatment. Some of the units charge consultancy fees, while others do not. Save for laboratory fees, other costs tend to be lumped together.

“Someone has to pay a consultation fee, then charged a separate fee for a blood slide for malaria parasites, and if found positive, he or she pays for malaria treatment, which is Ushs. 20,000 (US\$8.00),” – Private health provider in Jinja

One FGD participant reported that she once asked for, and received an explanation of the items in the medical bill at Kyotera Medical Centre. The client said she asked for an explanation because she did not have enough money to pay the bill and wanted a reduction. She said after the explanation from the cashier, she was given a discount on the inpatient admission fee.

Majority of the FGD clients reported that medical bills at private health facilities are usually block figures that do not reflect the different things they are being charged for. There was a feeling among health consumers that private service providers do price discrimination, which was believed to be the

reason they have limited transparency in pricing services and billing clients. However, the prices provided by the FGD clients were not different from those reported at the facilities. More price transparency in form of displaying prices of various services would therefore be beneficial to the public.

A few private clinics reported to have provided free health care to persons with disabilities and the destitute, but these were considered on a case by case basis, and no clinic had a standing policy to provide free health care to any of these special groups.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusion

Facility operating costs

Findings from the study show that facility operating costs are dependent on facility type. The variation of health facility costs according to type is as expected with higher level facilities costing higher but the variation according to location presents an inconclusive picture. This could be an area for further research.

Facility cost profile

According to the study, drugs/medicines and medical supplies and personnel collectively constitute the majority of cost components in all facilities irrespective of the level of care. The other notable cost component is buildings.

Health service cost

The key cost drivers for the health services considered were drugs and personnel. This finding was independent of the facility type.

Setting of service prices

PHP's have no systematic method to determine mark-ups. Service prices are set mostly arbitrarily according to market influences and clients' ability to pay.

Price components

- Retail mark ups were the highest in the supply chain at 50% for smaller packages and more than 300% for large packages.
- Medicines and commodities used in subsidized programs and social marketing initiatives such as family planning products had lower mark ups at all levels of care in both urban and rural areas. This was mostly due to the indirect control of retail prices by the support agencies.

Consumers' ability to pay

- Health services in the private sector are expensive and unaffordable to many health consumers.
- Partial credit services were available to some clients though there was no standardized mechanism in place to assess the creditworthiness of customers.

4.2 Recommendations

In the short term the USAID/Uganda Private Health Support Program should consider;

- Engagement in partnership arrangements with other programs such as the USAID Strengthening Health Outcomes through Private Sector (SHOPS) project and Management Sciences for Health's (MSH) Accredited Drug Shops Initiative to collaborate on improving services in the private sector. Synergies would be sought with these various initiatives in terms of geographical or content coverage.
- Conducting an inventory of available equipment especially for laboratories at the different levels of facilities and establishing minimum standards for the private sector facilities will be useful in informing interventions that are desirable but not available for, especially, the lower level facilities. For example a central laboratory for TB tests and other complicated tests may be set up but for routine tests such as for malaria, a mobile unit may be set up to provide/sell reagents, provide frontline support and training to laboratory staff and so on.
- The Program should work with professional associations such as the Uganda Allied Health Professionals, Uganda Private Midwives Association and the Uganda Private Sector Alliance to support the training and accreditation of cadres. Special attention should be given to laboratory staff to improve the quality of laboratory services.
- Providing financing arrangements for PHPs to purchase needed equipment to provide the required services. Support could be in form of cheaper credit facilities in collaboration with the financing institutions. This will enhance economic viability of the lower level facilities.
- Subsidizing personnel costs for facilities that are not breaking even but serve hard to reach areas. This subsidy could be in form of an allowance or a specialty training program support that assists in retaining the employees.
- Capacity building of facility owners/managers on economic management and understanding of operational costs and how these can be incorporated in the pricing of services and medicines will improve equity in pricing and hence influence affordability of care.

In the medium to long term, the USAID/Uganda Private Health Support Program should consider;

- Developing an accreditation mechanism for the facilities that are partnering with the program which determines the minimum quality and training requirements, cadres of staff, laboratory equipment and other measures.
- Entering into long term purchase agreements with wholesalers/distributors in Kampala to reduce prices based on the economies of scale of the assured retail market. This would augment the previous efforts by HIPS project which successfully advocated for the private for profit sector to access ARVs and other supplies from Joint Medical Stores free of charge or at subsidized prices.

- Working in collaboration with other partners in the health sector to lobby for institution of recommended retail prices for particular health services and medicines. This is a common practice in Kenya where there are guidelines and recommended prices for procedures such as safe male circumcision and others that are agreed upon by private practitioners. This would be vital in improving affordability of services as drugs/medicines are a key driver of costs.
- Working collaboratively with health insurance schemes and providers to promote their awareness to the general public to enable increases in utilization of health insurance services by consumers.

Uganda government and its agencies should consider:

- Enacting a regulation of capping the price mark-ups for medicines
- Innovate means of increasing access/distribution of health products
- NDA to enforce Good Pharmaceutical Practices in all outlets including PHPs

It is worthwhile to note that the Uganda Private Health Support Program has planned work with financial institutions to develop suitable financial products for the private sector; to train private health managers on business planning and management functions; provide technical assistance for improvement in quality of service; set up a private public partnership laboratory network and to promote efficiencies in the supply chain which will reduce cost of delivering health services at the point of use. These undertakings among others will augment the recommendations proposed in this report and will go long way to improve service delivery, clinic efficiency, data management, and cost management at private health facilities and will improve affordability of services to consumers.

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ANNEXES

Data collection tools

Study Title: An assessment of the cost components associated with providing a health service/package of health services in selected private health facilities in Uganda.

Private Health Facility Survey Questionnaire (April 2014)

SURVEY ID

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A. Cover page

District:	District code:
Name of Health Facility:	Facility code:
Respondent/Person to Contact (Name)	
Title	
E-mail:	
Phone (landline & cell)	
Data collector details	
Time of interview: Start Time _____	End Time _____

B. General questions

No	Description	Type	Record response
1.1	Type of private facility/Level of facility	1=Hospital	
		3.HC II	
		4. HC III	
		5. HC IV	
		3=Pharmacy	
		4=Drug shop	
1.2	Ownership	1=NGO/Private-not-for-profit	
		2=Private	
1.3	Location of facility	1=Rural	
		2=Urban/Peri-Urban	
1.4	Number of staff	Medical personnel (#)	
		Support staff (#)	
1.5	How many beds does the facility have?		
1.6	How many days a week does the facility operate?		

C. Please describe the services offered by the facility. Provide a list of all services for and tick (checklist)

No	Services	Response
1	Antenatal care services	
2	Family planning services	
3	OPD services	
4	Inpatient services	

No	Services	Response
5	TB diagnosis and treatment	
6	Malaria diagnosis and treatment	
7	Immunization	
8	HCT	
9	ART services	
10	X ray services	
11	Ultra sound	
12	General laboratory services	
13	PMTCT	
14	Safe male circumcision	
15	Other (specify)	

D. Facility outputs over the past 12 months

	Outputs	Response
	Outpatients	
1	Total outpatient visits	
2	Total new attendances	
3	Total re-attendances	
	Inpatients	
4	Total inpatients	

5	Number of Patient days	
	HCT	
6	HIV tests carried out	
7	HIV positive cases	
	PMTCT	
8	Pregnant women tested for HIV	
9	Pregnant women positive for HIV	
10	Pregnant women given ARVs for prophylaxis (PMTCT)	
11	Pregnant women given ARVs for treatment	
	Tuberculosis (TB) diagnosis and treatment	
12	Total TB tests	
13	Total TB positive patients	
	Malaria diagnosis and treatment	
14	Total malaria tests	
15	Total malaria positive tests	
	Antenatal care	
16	New ANC Attendances	
17	ANC Re-attendance 4th visit	
	Safe male circumcision	
18	Number of men circumcised	

E. Human resource/Personnel Costs

E 1 Medical personal

Health facility staff by position	Number	Last month salary amount	Monthly benefits (UGX)	Monthly allowances (UGX)	Hours of work per week
Consultant					
Medical Officer					
Clinical Officer					
Registered Nurse					
Enrolled Nurse					
Midwife					
Other					

E.2 Support staff

Health facility staff by position	Number	Monthly salary in UGX	Monthly benefits (UGX)	Monthly allowances (UGX)	Number of facility hours per week
Accounts Asst					
Admin Asst					
Receptionist					
Others					

E.3 Volunteers

No	Question	Guidance	Record response
1	Does the facility use any volunteers?	1=Yes 0=No	
2	How many volunteers does the facility have?	Number	
3	In the past month, how many days in the month did the volunteers work at the facility?	Number	
4	What activities were the volunteers involved in?	Malaria diagnosis and treatment (1=Yes 0=No)	
		TB treatment and diagnosis (1=Yes 0=No)	
		HIV counselling and testing (1=Yes 0=No)	
		ANC (1=Yes 0=No)	
		PTMCT (1=Yes 0=No)	
		Male circumcision (1=Yes 0=No)	
		Others (includes all other services and management) (1=Yes 0=No)	
5	How many hours a week do volunteers work?		
6	What is the average equivalent daily wage for volunteers?(If the volunteers are being paid a stipend, you record the amount per day)	UGX	

F. Drugs and medical supplies used at the facility

	Description	Starting stock	Stock received during 2013	Closing stock	Unit cost (Market price)
	Tuberculosis				
	ZN Stain				
	2 RHZE/6EH				
	2 RHZE/4RH				
	Malaria				
	RTD				
	Artemether/lumefantrine				
	PTMCT				
	Determine				
	Statpak				
	TDF/3TC				
	EFV				
	NVP				
	IPT Antenatal care (SP)				
	Male circumcision				
	Surgical procedure	N/A	N/A	N/A	
	Lignocaine				
	HB	N/A	N/A	N/A	
	Full blood count	N/A	N/A	N/A	
	Other				
	Medroxy progesterone inj				
	Implants				
	IUD				
	Gauze and Cotton wool				

	Description	Starting stock	Stock received during 2013	Closing stock	Unit cost (Market price)
	Syringes				
	Supportive I.V fluids on admission				
	Water for injection				
From the facility records of economic expenditures please obtain the total expenditure of the facility on; (UGX) for the year 2013					
TOTAL (UGX)					
	Expenditure on all drugs				
	Expenditure on all laboratory supplies				
	Total expenditure on drugs and supplies				

G. Equipment and furniture

Equipment type	Make/Brand	Number	Current age	Unit cost
Fridge				
Computer				
Printer				
Doctor's Table				
Waiting Chairs				
Doctor's chair				
Lab stools				
Examination Couch/bed				
Generator				
Weighing scale				
Complete blood count machine				
BP machines				
Stethoscope				
Laboratory Equipment (list)				
Others (Specify)				

	Buildings		Record response
	Approximate size of the building at the facility (square meters)	Square meters	
	What is the ownership status of the building	1=owned by facility/self-constructed 0=Building being rented	
	What is the construction material used for this facility (walls)?	Brick=1 Mad and poles=2 Other walls=3	
	Does the facility have a laboratory room?	Yes=1 No=0	
	If yes, what is the approximate size of the of the laboratory room	Square meters	
	If the building is rented, what is the rental value per month	UGX	
	Transportation		
	Does the facility incur transport expenditures on the following activities:	Drugs and supplies including vaccines (Yes=1 No=0)	
		Outreaches (Yes=1 No=0)	
		Surveillance (Yes=1 No=0)	
		Laboratory tests not carried out at the facility(Yes=1 No=0)	
		Others (specify)	
	How much was spent on each of these activities in the past month	Drugs and supplies including vaccines	
		Outreaches	
		Surveillance	
		Laboratory tests not carried out at the facility	
		Others (specify)	
	Outreaches		
	Does the facility carry out outreaches?	(Yes=1 No=0)	
	If, yes what outreaches does the facility carry out?	Immunization (Yes=1 No=0)	
		Family planning/ Antenatal care (Yes=1 No=0)	
		Others (specify)	
	On average how much is the monthly facility expenditure?	Immunization	
		Family planning/ Antenatal care	
		Others (specify)	
	On average how much is spent on transporting returns to the district		

	Utilities		Record response
	Power		
	What is the main power source?	None=0 Electricity=1 Solar=2 Generator=3	
	How much did you send on power in the past one month on your main power source?	UGX	
	Were there any other expenditures on power (other power source?)	Yes=1 No=0	
	If yes, record the amount spent on the other power source	UGX	
	Water		
	Does the facility incur any expenditure on water?	Yes=1 No=0	
	How much did the facility spend on water in a month (Average over the past 3 months?)	UGX	
	Do you have a facility for drinking water for patients?		
	How much does it cost on a monthly basis?		
	What was the expenditure on water harvesting if available?		
	Waste management		
	Does the facility incur any expenditure on waste management?	Yes=1 No=0	
	How much did the facility spend on waste management in the past month?	UGX	
	Communication (telephone, fax, internet, airtime etc)		
	Does the facility incur any expenditure on communication?	Yes=1 No=0	
	How much did the facility spend on communication in the past month?	UGX	
	Cleaning (slashing, mopping, dusting, fumigation etc)		
	How do you clean the facility?	1= Outsource 2= In source	
	On average how much do you spend in a month on cleaning?	UGX	
	Other		
	Specify		
	How much was spent?	UGX	

Vehicles

			Record response
	Does this facility own any vehicles? (Cars, motorcycles, bicycles, boats)	Yes=1 No=0	
If Yes to the questions above, answer the questions below			
	Vehicle type	Make	Kms travelled in 2013
			How many times was the vehicle serviced in 2013?
			How many times were the tyres changed in 2013
			What is the replacement value (price) of vehicle

Interview Guide for Key Informants

A. Objective

The objective of the interviews is to document experiences of key informants with costs associated with providing health services in the private sector.

B. Eligibility

The selected key informants will be Private Health Facility In-charges/owners.

C. Precautions

- Confidentiality – Testifying individuals have a right to remain anonymous, in which case they will be identified by a false name in the story;
- Accuracy – To ensure accuracy, the notes should be taken verbatim, in first person; preferably, an audio recorder should be used;
- Focus – To maintain focus, the interviewer should use the set questions as a guide of the conversation;
- Relevance – To maintain relevance of responses, interviewer should keep asking details of how the interviewee feels about each important bit of experience
- Recommended duration of interview is 30-40mins.

D. Access

Throughout the conversation the interviewer should the focus on subject's awareness of access framework:

- Availability of services
- Accessibility (geographic) of services
- Acceptability of services available
- Affordability of services

E. Guiding questions/issues

1. Background information of informant:

- Names (false name if she does not wish to reveal her identity)
- Location (Village, District)
- Gender
- Education level
- Title

2. Knowledge about private health service provision:

- How does the private clinic cost pharmaceuticals, diagnostics and laboratory tests?
 - Are the costs consolidated in one charge or separate to be paid by the patients?
 - Are the indirect costs such as furniture, equipment, vehicles considered when costing the services?
 - Are salaries and direct costs considered when costing the services?
 - How often do you review the mark ups that are added on to the services after purchasing?
 - Are the mark ups sufficient for you to break even and make a profit?
 - What subsidies or support is provided by government, NGOs and development partners to your facility?
- What is the basis of the charges of the services offered? In particular:

- a) HIV/AIDS counselling and testing
 - Are these services offered free of charge or charged?
 - How does the public sector assist in your services?
 - Have the HIV testing kits reduced the cost of Counselling and testing?
 - Are there some disadvantaged groups that are offered subsidized or free services? Please name them

 - b) Malaria treatment
 - How is malaria diagnosed and treated in your clinic?
 - Are there diagnostic/lab tests that are done? Which ones?
 - Do you consolidate the price of lab and diagnostics in the final price to be charged to the patient?
 - Are there any subsidies such as the low cost ACTs that have been provided to your clinic?
 - Do most of the patients in your clinic afford the malaria treatment?
 - c) Safe male circumcision
 - What are the promotional programs carried out by your clinic about male circumcision?
 - Have you had admission cases in your clinic after circumcision?
 - How do you price the services of male circumcision (consultation, surgery etc)?
 - Are medicines provided after surgery? If so what are the prices?
 - d) Family planning
 - What family planning services are available?
 - How are they priced?
 - Are there subsidies that are provided to access the services?
 - What have been your experiences on these services in terms of costs?
 - e) Antenatal care
 - What are the antenatal and post natal care services provided by the clinic?
 - How are they priced to be included in the payment by the expectant mothers (Is it a consolidated package for the pregnancy or separate)?
 - Are there subsidies that are provided to mothers to access the services? (e.g nets, mama kits etc)
 - What is your experience on these services in terms of costs?
 - f) Prevention of mother to child transmission/Elimination of mother to child transmission
 - Which services are provided on PMTCT/EMCT?
 - How are the services priced?
 - Are there subsidies by government, NGOs on PMTCT?
 - How have these subsidies affected your cashflow in terms of increasing the number of patients, revenue base etc?
 - Are these subsidies considered when pricing the services of PMTCT?
3. Are all the services above readily available to consumers when they need them? If not why and what do the consumers do when they are not able to access them?
 4. How can affordability of these specific services offered to the patients be improved?

Discussion Guide for Focus Groups

A. INSTRUCTIONS TO MODERATORS

(1) *Explain the scope of the discussion*

The meeting will discuss experiences with access to health services in the private sector.

(2) *Explain key terms*

- a) Access (availability, accessibility-geographical, acceptability and affordability)
- b) HIV/AIDS counselling and testing
- c) Malaria treatment
- d) Safe male circumcision
- e) Family planning
- f) Antenatal care
- g) Prevention of mother to child transmission

(3) *Confidentiality provisions*

- Assign the participants names (not real names)
- Take their basic characteristics:
 - Age
 - Village/ District
 - Education level
 - Source of livelihood/employment

(3) *Emphasis on access*

Throughout the conversation the interviewer should the focus on subject's awareness of access framework:

- Availability of services
- Accessibility (geographic) of services
- Acceptability of services available
- Affordability of services

(5) *Perceptions and attitudes that affect access to services*

As much as possible, moderators should probe for how personal experience shaped their current opinion on access to services in private clinics.

(6) *Recommended time:* The discussion should take about **two hours**. Two or three experiences should suffice on each sub-topic.

B. SHARING OF EXPERIENCES

Good and bad experiences while accessing services:

	Service	Parameters	Issues of interest (please suggest)	No. of experiences
1	HIV/AIDS counselling and testing	<ul style="list-style-type: none"> ▪ Availability of services ▪ Accessibility (geographic) of services ▪ Acceptability of services available ▪ Affordability of services 	<ul style="list-style-type: none"> ➤ Have you been tested for HIV before? ➤ What have been your experiences before, during and after counselling and testing? ➤ Does anyone remember what they were told during counselling? ➤ How long do results take? ➤ How much does it cost? ➤ How do you pay (health insurance, cash/out of pocket payments, or reimbursements by an employer) ➤ Is credit service available at private clinic? 	
2	Malaria treatment	<ul style="list-style-type: none"> ▪ Availability of services ▪ Accessibility (geographic) of services ▪ Acceptability of services available ▪ Affordability of services 	<ul style="list-style-type: none"> (ii) Have you been diagnosed with malaria before? (iii) How did they test for malaria? (Blood stain, Rapid Diagnostic Test) (iv) How much does it cost to be treated for malaria? (Consultancy fee, lab tests, medicines)? Is the fee combined for all above or segregated (v) Did anyone have challenges paying for malaria treatment? (vi) How do you pay (health insurance, cash/out of pocket payments, or reimbursements by an employer)? (vii) Is credit service available at private clinic? 	

3	Safe male circumcision	<ul style="list-style-type: none"> ▪ Availability of services ▪ Accessibility (geographic) of services ▪ Acceptability of services available ▪ Affordability of services 	<ul style="list-style-type: none"> iii) Have you heard of male circumcision services? ix) What procedures are conducted (Counselling, surgery, post-surgery treatment) (x) What is the total cost for the service? (Including consultation, surgery and medicines)? xi) Does anyone know a case that got complicated or required admission? xii) How do you pay (health insurance, cash/out of pocket payments, or reimbursements by an employer) iii) Is credit service available at private clinic? 	
4	Family planning services	<ul style="list-style-type: none"> ▪ Availability of services ▪ Accessibility (geographic) of services ▪ Acceptability of services available ▪ Affordability of services 	<ul style="list-style-type: none"> iv) What family planning services are available? Do you know the ones used commonly? xv) Are users able to get the FP options they need? vi) Are the services provided conducive/acceptable to users? vii) What are the common problems? iii) How much do FP services cost? ix) Are the services affordable? 	

5	Antenatal care	<ul style="list-style-type: none"> ▪ Availability of services ▪ Accessibility (geographic) of services ▪ Acceptability of services available ▪ Affordability of services 	<p>xx) Have you used antenatal services from a private facility before?</p> <p>xi) How many times did you go for antenatal care?</p> <p>xii) What tests were carried out? (BP, Weight/height (BMI), Syphilis screening, Urine test (protein and infection), HIV status)</p> <p>iii) Which medicines were you given during pregnancy (ferrous, folic acid, hormones)</p> <p>iv) During post natal care, were you given family planning counselling?</p> <p>xv) How much does it cost? (Consultation, counselling, medicines, post natal care).</p> <p>vi) If paid for as a package, what is the total cost?</p> <p>vii) How do you pay (health insurance, out of pocket payments, or reimbursements by an employer)</p> <p>iii) Is credit service available at private clinic?</p>	
6	Prevention of mother to child transmission	<ul style="list-style-type: none"> ▪ Availability of services ▪ Accessibility (geographic) of services ▪ Acceptability of services available ▪ Affordability of services 	<p>ix) Have you heard of the health policy of testing pregnant mothers for HIV?</p> <p>xx) During antenatal care, are the HIV tests done on pregnant mothers?</p> <p>xi) If found positive, what are the procedures taken to initiate treatment?</p> <p>xii) Do you know what medicines are given to expectant mothers with HIV?</p> <p>iii) How much does it cost?(Including consultation, testing and medicines)</p> <p>iv) How do you pay (health insurance, cash, out of pocket payments, or reimbursements by an employer)</p> <p>xv) Is credit service available at private clinic?</p>	

C. CHALLENGES AND RECOMMENDATIONS

1. Challenges

What challenges do you face in accessing services from private health providers?

- (a) At household level (e.g. unaffordable services, other competing interests for the meagre incomes nutritional support, transport, etc)
- (b) At community level (e.g. stigma, poor quality services (diagnostic and lab tests), etc)
 - Have you heard any prevention or promotions services provided by your service provider?
 - Are the costs of services explained to you in detail before you pay?
 - What is your experience regarding the lab and diagnostic services provided by the health care clinic?
 -
- (c) At private health clinic level (e.g. stigma, health worker attitudes, service availability and quality, distance to facility, waiting time, unacceptable rules, inconvenient schedules, affordability of services, customer care, queues, etc)
 - What is the approximate waiting time when accessing the services?
 - Do you find travel to the clinic costly and therefore a barrier to access care?
 - Does the clinic carry out tests (Lab and other diagnostic) before providing medication?
 - Do you consider medicines costly and unaffordable for some diseases?
 - If yes, which diseases do you find costly to treat?
 - What is your experience with the family planning and antenatal care services in terms of schedules of antenatal care, tests and medicines provided during pregnancy, costs of the services?

2. Recommendations

What do participants think should be done to improve access to private health services, particularly:

- a) HIV/AIDS counselling and testing
- b) Malaria treatment
- c) Safe male circumcision
- d) Antenatal care
- e) Prevention of mother to child transmission

Price Components Interview Guide for central level officials

Objectives:

1. To know whether there are medicine price control regulations
2. To understand whether final prices of some/all medicines controlled.
3. Understand what taxes are applied to medicines private and other sectors
4. Assess maximum wholesale and/or retail mark-ups of medicines and health supplies

Key informants for central data collection, interview objectives and sample questions

Key Informant	Objective	Questions
Ministry of Health, Pharmacy Division	Determine what, if any, regulations are in place to control medicine prices. Identify any differences in pricing structures e.g. generics vs. originator brands; imported vs. locally manufactured	What are the taxes/tariffs applied to medicines in the private sector? Does the government regulate mark-ups in the private distribution chain? If yes, please indicate rates. Is there a Value Added Tax on pharmaceuticals and medical supplies? Does the government control medicine prices in the private? If so, what are the regulations? Are prices enforced and by whom? Is there a pharmacy board? Does the pharmacy board collect a fee on pharmaceuticals? Do fees differ between generic equivalents and originator brands, and/or between imported and locally-produced products? Is there a government regulated dispensing fee? If yes, please describe the fee and how it is applied.
National Drug Authority	Obtain an overview of the medicine registration process and how it impacts the availability of medicines. Identify any fees collected for regulating quality of medicines.	What fees (e.g. registration) are collected, and what are they used for? What products are tested for quality? What is the cost of quality control testing? Are medicine prices regulated? How long does QC testing take?
Importers	To determine how medicines are imported. Collect data on the charges related to the importation of medicines. Identify the importer's mark-up.	What are the routes (e.g. air, land, sea) and major entry points for medicines and health supplies? How is the logistics line divided (e.g. international freight vs local transport from border), and what is charged? How long does it take to clear an import order? What fees are incurred while an order waits to clear (e.g. storage, insurance etc)? What are the fees for international inspection (pre-shipment inspection and in-country inspection)? What are the charges (e.g. port fee, port insurance, customs, stamp fee) incurred at the receiving port? Is there an import tariff on pharmaceuticals? Are any medicines or supplies exempted from the import tariff? What finance charges and fees are imposed by the bank on the procurement of pharmaceuticals (e.g. letter of credit, purchase of foreign exchange, contingency fee)?

		<p>Does the government set a maximum importer's mark-up?</p> <p>What are charges for local transport:</p> <p>a) from the border to the import warehouse;</p> <p>b) From the import warehouse to the wholesaler?</p>
Local Manufacturer's association	<p>Develop an understanding of the pricing structures of locally manufactured medicines</p> <p>Determine the distribution routes and associated costs for locally manufactured medicines.</p> <p>Understand the cost differentials between imported and locally manufactured medicines</p>	<p>What percentage (by volume or by value) of medicines is locally manufactured?</p> <p>Is there a policy of preferential purchasing for locally manufactured medicines?</p> <p>Does the government regulate medicine prices in the private sector?</p> <p>How do manufacturers determine the prices of medicines?</p> <p>What is the pricing structure (e.g. taxes, mark-ups) for locally produced medicines? How does this differ from the pricing structure of imported medicines?</p>
Professional councils (Medical and Dental Practitioners Council, Pharmaceutical Society of Uganda (PSU), Allied Medical Practitioner Council	<p>Determine the roles and responsibilities of professional councils</p> <p>Identify any fees collected by the professional councils</p> <p>Obtain the perspective on the respective margins and viability of various actors in the supply chain.</p>	<p>What are the roles and responsibilities of the professional councils?</p> <p>Are any fees collected? How are the fees used?</p> <p>How are wholesale and retail mark-ups determined?</p> <p>Are wholesaler and/or retailer margins regulated in the private sector? If so, what are the regulations?</p> <p>Does the government control medicine prices in the private sector? If so, what are the regulations? How are they enforced?</p>

Prices of Medicines/Medical Supplies at Various Stages in the Supply Chain in the Private Sector

Medicine/Medical Supplies Name	Medicine Strength	Dosage Form	Pack size	Manufacturer	MSP	Import	Wholesale Stage 1	Wholesale Stage 2	Retail Price
Amoxicillin	250mg	Cap/tab	1000						
Artemether/Lumefantrine	20/120mg	Tab	24						
Cotrimoxazole	48mg/ml	Susp	100						
Cotrimoxazole	480mg	Tab	1000						
Medroxy-progesterone acetate (Depo-Provera)	150mg	Inj	1						
Ferrous sulphate + Folic acid	200mg + 5mg	Tab	1000						
Sulfadoxine+Pyrimethamine	500+25mg	Tab	1000						
Nevirapine	200mg	Tab	60						
Nevirapine	10mg/ml	Susp	240ml/ 100ml						
Fluconazole	200mg	Tab	3/28/100						

7.2 WORK PLAN

Activity (Work)	Venue	KPI	Comment	April to May 2014										
				Dates										
1. Planning				7 th	9 th	10 th	11 th	14 th - 15 th	16 th - 18 th	21 th - 25 th	28 th - 5 th	8 th	12 th	15 th
Submission of outline report inclusive of study design and tools	THE PROGR AM	Report received by THE PROGRAM		1 day										
Meeting to discuss tools	THE PROGR AM	Notes on tools	Tools will be adopted from existing HEPS tools in consultation with THE PROGRAM M&E team		1 day									
Revision of data collection tools	HEPS	Revised tools	At least 4 tools in place			1 day								
Final review of data collection tools	THE PROGR AM	Approved data collection tools	At least 4 tools in place				1 day							
Recruitment of data collection/field teams	HEPS database	Number of data collectors	HEPS has database of research associates				1 day							
1.3 Survey preparations and planning		Preparations on track	Including preparation of contracts for team,											

Activity (Work)	Venue	KPI	Comment	April to May 2014											
				Dates	7 th	9 th	10 th	11 th	14 th - 15 th	16 th - 18 th	21 th - 25 th	28 th - 5 th	8 th	12 th	15 th
1. Planning															
			preparation of introduction letters												
2.0 Data Collection															
2.1 Training of data collectors	HEPS	No. of data collectors trained	The PROGRAM staff will participate						2 days						
2.2 Field data collection	4 districts	Raw data forms	Guides from districts will assist in process							3 days					
3.0 Quality Assurance															
Pre-testing of tools and field tests	HEPS	Tools pretested	Pre-test report					3 days							
Quality assurance visits by Survey Manager	HEPS/ districts	Quality assurance visit report	As per methodology							3 days					
4.0 Data entry, analysis, processing and reporting															
Data Entry & Analysis	HEPS	Data entry screen	To be conducted at HEPS								5 days				
Report	HEPS	Final report										1 st	2 nd		Final

Activity (Work)	Venue	KPI	Comment	April to May 2014										
				Dates										
1. Planning				7 th	9 th	10 th	11 th	14 th - 15 th	16 th - 18 th	21 th - 25 th	28 th - 5 th	8 th	12 th	15 th
Dissemination of Results	The PROGR AM	Follow up action plans	To be decided in collaboration with THE PROGRAM including presentation of draft finding to stakeholders											

*THE PROGRAM refers to USAID/Uganda Private Health Support Program

7.3 Health facilities visited

DISTRICT	HEALTH UNIT	OWNERSHIP	LEVEL
JINJA	BUGEMBE MEDICAL CENTRE	PRIVATE	HC II
	NAMULESA PARENTS	PRIVATE	HC II
	RANA MEDICAL CENTRE	PRIVATE	HC IV
	JINJA CLINIC CENTRAL	PRIVATE	HC III
	JINJA MEDICAL CLINIC	PRIVATE	HC II
	WAKITAKA MEDICAL CENTRE	PRIVATE	HC II
	MOHABASHAR MEDICAL CENTRE	PRIVATE	HC IV
	DAG CLINIC	PRIVATE	HC II
VICTORIA CLINIC & LAB	PRIVATE	HC II	
KYENJOJO	MIDAS TOUCH	PRIVATE	HC IV
	ST.EDWARD HEALTH CLINIC	PRIVATE	HC III
	HOPE AGAIN MEDICAL CENTRE	NGO	HC IV
	DOCTOR'S CLINIC	PRIVATE	HC III
	KARUSOZI DOCTOR'S CLINIC	PRIVATE	HC III
	BUFUNJO MEDICAL CENTRE	PRIVATE	HC IV
	MACFARLAND MEDICAL CENTRE	NGO	HC IV
	MABIRA POLYCARE	PRIVATE	HC III
	EMMANUEL HEALTH CARE	PRIVATE	HC III
MBARARA	MBARARA COMMUNITY HOSP	PRIVATE	HOSPITAL
	MAYANJA MEMORIAL	NGO	HOSPITAL
	RUBINDI PARENTS CLINIC	PRIVATE	HC II
	RUBINDI DOMICILIARY CLINIC	PRIVATE	HC II
	HOMELAND BWIZIBWERA	PRIVATE	HC III
	GORD MEDICAL CLINIC	PRIVATE	HCIII
	RUHARO MISSION	PRIVATE	HOSPITAL
	MBARARA MEDICAL AND CANCER CENTRE	PRIVATE	HC III
	ST. JOHN'S COMMUNITY KATOJO	PRIVATE	HC III
RAKAI	MIREMBE CLINIC	PRIVATE	HC III
	KISA MEDICAL CENTRE	PRIVATE	HC II
	HOUSE OF HOLY MARY NURSING HOME	PRIVATE	HOSP
	MUKISA HEALTH SERVICES	NGO	HC II
	ST.JOSEPH'S MEDICAL CENTRE	PRIVATE	HC II
	KUTEESA CLINIC	PRIVATE	HC II
	ST. GYAVIIRA DOMICIARY	NGO	HC II
	ST. JOSEPH GENERAL & ORTHOPAEDIC CLINIC DOMICIARY	PRIVATE	HC II
	KYOTERA MED. CENTRE	PRIVATE	HC IV

7.4 TORs of Assignment

1. Background Information

The USAID/Uganda Private Health Support Program (2013 – 2018), USAID’s flagship private health sector project in Uganda, builds upon the successes of the USAID/Health Initiatives for the Private Sector Project (2008 - 2013). The goal of the Program is to improve credibility and cohesiveness of the private sector and expand the capacity of private sector providers. The Program provides technical expertise, enhances quality standards, and improves access to capital, accreditation and leadership in the private sector. The Program has three main objectives:

- a) To expand availability of health services by private providers
- b) To increase affordability of private health services and products
- c) To improve quality of private health sector facilities and services

Working in 44 districts, the program will build a network of clinics to partner with other USG funded programs in the areas of HIV/AIDS, malaria, tuberculosis, maternal and child health, reproductive health, family planning, and programs under the Global Health Initiative. The Program will work closely with the Ministry of Health’s public-private partnership in health unit, umbrella private sector health federations, medical councils, and other USG and non-USG implementing partners.

2. Purpose of the Assignment

The Program seeks to undertake a cost and pricing study to inform short and long term program strategies to increase affordability of health services in select Program target districts. Private health sector sites of interest will include rural and urban based clinics, hospitals, drug shops, pharmacies, nursing centers, and maternity homes. The study will determine: the cost components associated with providing a health service/package of health services; the cost components that affect pricing of health services, including medicines and health commodities, laboratory tests, and clinic visits; and how pricing of different health services, including medicines and health commodities, affects service uptake. Specifically, the study will:

- a. Identify all facility operating costs and allocate these to individual cost centers. Cost centers will include buildings and permanent structures, equipment and furniture, personnel, drugs and medical supplies, laboratory tests, and utilities.
- b. Determine specific cost components for drugs, laboratory tests and a clinic visit for a health service. Health services of interest will include HIV counseling and testing, tuberculosis (TB) diagnosis and treatment, malaria treatment, antenatal care, safe male circumcision, and prevention of mother to child transmission (PMTCT).
- c. Determine factors private providers consider when pricing healthcare services including medical consultations, drugs, and laboratory tests.
- d. Compare variations in facility costs and prices based on location (urban/rural), staffing, type/level of health facility and any other factors deemed significant.

- e. Survey local pharmaceutical manufacturers and distributors, including wholesalers and retailers, to determine their cost components and factors they consider when pricing their drugs and health commodities.
- f. Survey consumers at selected private health centers to assess ability to pay for health services including drugs and health commodities.
- g. Compare pricing of health services for different payment modalities such as out of pocket payments or health insurance exist.

3. Sample questions for the study

- a. What are the unit costs for clinic visits, pharmaceuticals, and laboratory tests for the health services you provide and pharmaceuticals you stock?
- b. What do you charge for the services you offer? Health services should include HIV/AIDS counseling and testing, malaria treatment, safe male circumcision, antenatal care, and prevention of mother to child transmission?
- c. How much do you pay to purchase these medicines and health commodities?
- d. How much do you charge clients for these medicines and health commodities?
- e. How do you set prices for your health services including drugs and health commodities? What costs, if at all any, do you consider when setting the prices?
- f. Focus group discussion questions for people that accesses health services at the private health facility should include the following questions;
 - i. What mode of payment do you use for specific health services, medicines, or health commodities? These could include health insurance, out of pocket payments, or reimbursements by an employer.
 - ii. What are some of the barriers you face in paying for specific health services, medicines or health commodities? Barriers could include high prices, availability of cheaper alternatives, etc...
 - iii. How much are you charged for specific health services, medicines, or health commodities when you visit this private health facility? (Check whether prices are similar to those indicated by health facility).

4. Scope of Work

The consultant(s) shall carry out the cost and pricing study in a representative sample of private health facilities in four districts (two urban, two rural) from within the Program's 44 targeted districts.

The consultant(s) will design data collection tools based on the objectives of the study and manage a team of data collectors for primary and secondary data collection, entry, analysis and report writing.

The target population will include medical doctors, clinical officers, nurses, midwives, health assistants, pharmacists) and clients at selected target sites.

5. Expected Deliverables

There assignment will culminate into the following three (3) major outputs:

- An inception report that includes introduction, objectives, scope of work, methodology and data collection tools, implementation schedule/work plan and deliverables, a plan for data collection and analysis, report writing and dissemination.
- A draft comprehensive report for comments to the USAID/Uganda Private Health Support Program plus any challenges/gaps in data collection experienced in the study.
- A final comprehensive study report and dissemination.
 - Final cost and pricing report will as a minimum, include a standard cover sheet; executive summary; introduction/back ground information; purpose and objectives; methods and limitations; summary of data; and findings and conclusions all in accordance with the study objectives. Appendices shall include data collection tools, data collection schedule, persons interviewed, health facilities visited and terms of reference of the assignment.
 - Summary reports: Prepare and disseminate summary reports suitable for the different audiences and stakeholders as appropriate.
 - Final report shall be in English, MS word, Times New Roman font 11 and the main report not exceeding 50 pages excluding appendices submitted both electronically and in hard copies (5 copies)

All materials produced by the study (hard and soft copies inclusive of data)

7.5 National pharmaceutical fees structure

The National Drug Authority (NDA) fees:

Type of Fee	Amount
1.Product registration: <ul style="list-style-type: none"> Imported medicines Locally produced medicines 	USD 1000 USD 200
2. Retention fee: <ul style="list-style-type: none"> Imported medicines Locally produced medicines 	USD 300 USD 100
3. Import/export fees <ul style="list-style-type: none"> Annual import or export permit Import or export permit per consignment 	UGX 300,000 (USD 128) UGX 100,000 (USD 43)
4. Verification fees per consignment	2% of FOB price
5. Annual premise fees New applications <ul style="list-style-type: none"> Wholesalers Pharmacies Drug shops Renewals <ul style="list-style-type: none"> Wholesalers Pharmacies Drug shops 	UGX 1,035,000 UGX 830,000 UGX 172,000 UGX 785,000 UGX 530,000 UGX 132,000

Pharmaceutical Society of Uganda annual fees:

Type of Fee	Amount
Wholesale/ retail Pharmacies	UGX 400,000
Wholesale pharmacies	UGX 300,000
Retail Pharmacies	UGX 150,000
Large scale manufacturer	UGX 500,000
Small scale manufacturer	UGX 350,000

7.6 Study team

NAME OF CONSULTANT	QUALIFICATION	POSITION
Denis Kibira (MPS)	AHMP MBA B. Pharm PGD TQM PGD PHM	Project Coordinator/Survey Manager
Brendan Kwesiga	MPH (Health Economics) Bsc. Quantitative. Economics	Health Economist
Dr. Moses Muwonge	MSc PH BMBS	Public Health expert
Patrick Mubangizi (MPS)	Masters Finance BSc Applied Accounting MSc, MMS PGD HRM B. Pharm	Technical Advisor
John Baptist Bwanika	PhD (Stat) MA (Demography) B Stat	Statistician
Field team		
Dr. Sekikuubo Jackson		
Claire Ataliba		
Rosette Namanda		
Richard Hasunira		
Cornelia Asimwe		
Judith Kansiime		
Richard Tibasiimwa		
Nakimuri Shidah		