

## KEY FINDINGS: OVERALL

1. Availability of studied medicines was highest in Private Sector facilities and lowest in Mission facilities
2. In the Public Sector, there was no difference in availability of medicines between rural and urban facilities. However, in the Private and Mission sectors, medicines were more available in urban areas
3. Prices of medicines in the Private Sector facilities were higher than in Mission facilities.
4. Medicines were unaffordable for the lowest paid Government worker in Private Sector and Mission facilities.

## 1. Introduction

High prices and low availability limit access to essential medicines. To understand more about what people pay for medicines in Uganda, the Ministry of Health in collaboration with the World Health organization (WHO), Health Action International (HAI-Africa) and Health Promotion and Social Development (HEPS-Uganda) conducted a countrywide survey on medicine prices in 2004.

In line with the recommendations of the 2004 survey, the Ministry of Health (MOH), WHO and HAI-Africa established a medicine price monitoring system, to generate data on medicine availability and price trends through quarterly surveys. Data obtained from these surveys will be used to advocate for improvement in policies that influence the pricing and availability of essential medicines.

The results presented here are for the baseline survey conducted in April-June 2007 quarter.

## 2. Availability

### KEY FINDINGS: OVERALL

1. In all the sectors, medicines were more readily available in the urban compared to the rural facilities.
2. Glibenclamide 5mg tab was available in 26% of the Public facilities, 48% of the Mission facilities and 52% of the Private facilities. Metformin 500mg tab was available in 37% of the Public facilities, 39% of the Mission facilities and 48% of the Private facilities.
3. Sulfadoxine/Pyromethamine 500mg+25mg tab was available in more than 80% of the Public and Private facilities. Artemether/Lumefantrine 20+120mg tab more available: in 85% of the Public facilities, 22% of the Private facilities, and 13% of the Mission facilities.

Diabetes has emerged as one of the major chronic diseases in Uganda. Statistics from WHO reveal that there were 98,000 cases of diabetes in Uganda in 2000. This number is projected 328,000 by 2030. The age-standardised mortality stood at 26.9 per 100,000 population in 2002 (*Diabetes in the African Region, 2002*). As such, it is important that of Glibenclamide and Metformin to be highly available due to their high demand by diabetics.

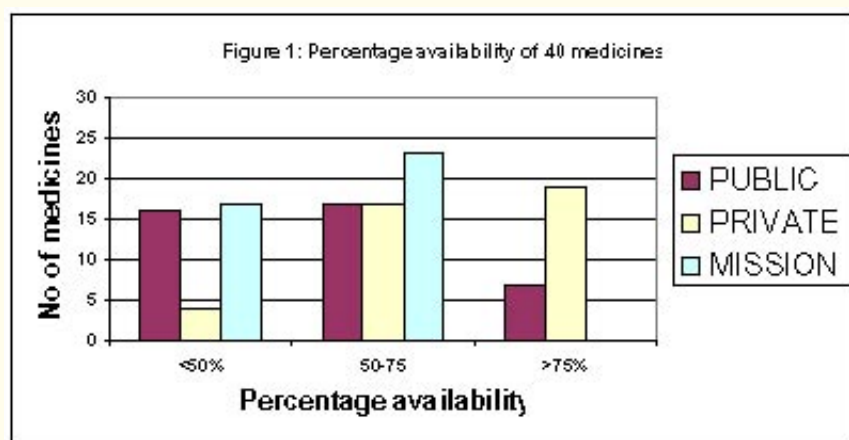
Malaria is among the top five causes of death in Uganda. The 2002 WHO statistics on age-standardised mortality rate by cause puts deaths from malaria at 101.3 per 100,000 population. Following the change in the national anti-malarial treatment policy guidelines to Artemether-Lumefantrine as the first line, availability of this medicine is expected to be high across all the sectors. This could explain its high availability in the Public Sector.

## AVAILABILITY OF MEDICINES ACROSS THE SECTORS

SECTOR	NO. OF FACILITIES	MEDIAN AVAILABILITY
<b>Public:</b> Overall	27	56%
Urban	11	59%
Rural	16	56%
<b>Private:</b> Overall	27	76%
Urban	15	87%
Rural	12	63%
<b>Mission:</b> Overall	23	52%
Urban	7	86%
Rural	16	38%

Public Sector procurement prioritises essential medicines and as such there was no significant difference in the levels of availability of medicines in the urban and rural Public Sector facilities.

Mission facilities in the rural areas are mainly small Health Centre IIIs and Health Centre IVs with less activity compared to the hospitals in the urban areas. This could explain the marked difference in the availability of medicines in the urban and rural Mission facilities.



Medicine availability of more than 50% was highest in the Public facilities and lowest in the Mission facilities. Medicines availability of more than 75% was highest in Private facilities. There was no Mission facility with medicine availability of more than 75%. These medicines are essential medicines expected to be found in the facilities in the survey sample.

### 3. Medicine Prices

#### KEY FINDINGS: MEDICINE PRICES

1. Medicine prices in the Private Sector were the same in both urban and rural facilities. This was a similar finding in the Mission Sector. Medicines are provided free of charge in the Public Sector.
2. Medicine prices in Private facilities were 14-20% higher than in Mission facilities.
3. A comparison of Median Price Ratios (MPR) reveals that most medicines were twice more expensive than the International Reference Price in both the Private and Mission facilities.

**Table 2: Comparison of medicine prices between and within sectors**

Sectors compared	Priv Urb/ Priv Rur	Mis Urb/ Mis Rur	Priv Urb/ Mis Urb	Priv Rur/ Mis Rur
No of times more expensive	1.00	1.00	1.20	1.14
No of pairs compared	26	29	31	23

**Table 3: Prices of five selected medicines in the Private and Mission facilities**

	Private Facilities		Mission facilities	
	Ushs	MPR	Ushs	MPR
Metformin tab 500mg	100/-	3.8	90/-	3.4
Glibenclamide 5mg tab	72.5/-	11.8	20/-	3.3
Ceftriaxone 1gm injection	5,000/-	2.7	5,000/-	2.7
Cotrimoxazole susp 8/40 mg/ml, 100ml	1,500/-	3.0	1,480/-	2.9
Amoxicillin paed susp 125mg/5ml, 100ml	1,500/-	1.9	1,500/-	1.9

The MPR expresses the price of the product compared to the MSH Drug Price Indicator median values. MPR is adjusted with International Reference Price MSH 2006. The exchange rate at the beginning of the survey was Ushs 1,750/- for US\$1.

The medicines in Table 3 were available in less than 40% of the Public Sector facilities yet they are commonly used medicines as per the Uganda Clinical guidelines (2003). Respiratory infections are a major cause of mortality. The 2002 WHO age-standardised mortality rate by cause for respiratory infections is 94.1 per 100,000 population. Amoxicillin susp and Cotrimoxazole susp are medicines used in acute respiratory infections in paediatrics.

The findings imply that majority of the population that seek treatment have to buy these medicines from the Private and Mission sector facilities where they are sold expensively

## 4. Affordability

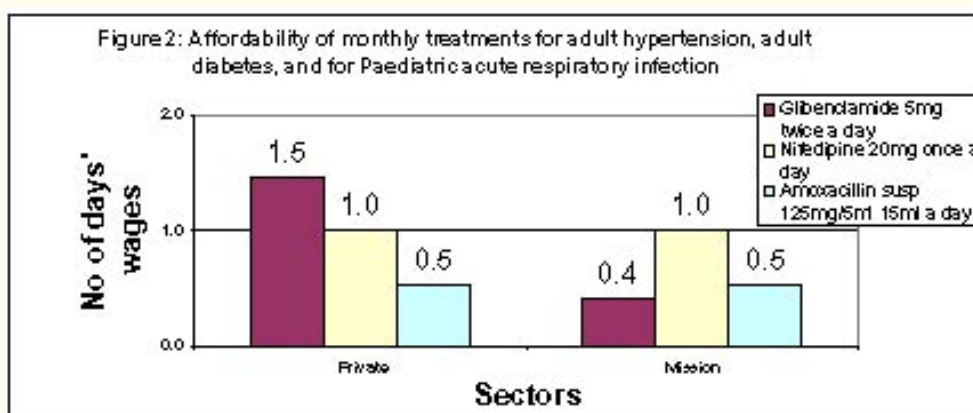
### KEY FINDINGS: AFFORDABILITY

Affordability is calculated in terms of the number of days the lowest paid government worker would have to work to pay for one treatment course of an acute condition or one month's treatment of a chronic condition. The daily wage of the lowest paid government worker is at US\$ 3,000 (1.714 US\$) as per the 2006-2007 Government of Uganda salary structure.

An illustrative example is of a family having a diabetic father on Glibenclamide 5mg, a hypertensive mother on Nifedipine 20mg and a child with an acute respiratory tract infection on Amoxicillin 125mg/5ml suspension.

For this family, it would require almost two days wages for treatment in the mission facility while treatment from the private facility would require three days' wages.

Since majority of medicines are not available in the public sector, treatment has to be sought from the private or mission



facilities. But from the findings, the treatment would be unaffordable in these facilities. These findings further imply that the majority of the population that leaves under less than US\$ 1 a day can not afford treatment yet access to basic care is a universal right.

## 5. Conclusion

Availability of medicines and medicine prices relative to the income, are still a major hindrance to access to essential medicines in Uganda.

## Annex 1. Availability of medicines across the sectors

AVAILABILITY IN THE PUBLIC SECTOR		
Percentage Availability	Medicines	
16 medicines had 50% or less medicine availability	Acyclovir tab 200mg	Nifedipine tab 20mg
	Amoxicillin susp 125mg/5ml	Nystatin pessaries 100000iu
	Bendrofluazide tab 5mg	Omeprazole cap 20mg
	Betamethasone cream 1%w/v	Prednisolone tab 5mg
	Ceftriaxone inj 1g vial	Salbutamol inhaler 0.1mg/dose
	Cimetidine tab 400mg	Fluconazole tab/cap 200mg
	Cotrimoxazole paed susp 8+40mg/ml	Glibenclamide tab 5mg
	Metformin tab 500mg	Metronidazole susp 200mg/5ml
17 medicines had 50-75% medicine availability	Amitriptylline tab 25mg	Mebendazole tab 100mg
	Amoxicillin cap/tab 250mg	MethylErgometrine 200ug/ml
	Carbamazepine tab 200mg	Metronidazole tab 200mg
	Dextrose 5% inj 500ml	Paracetamol tab 500mg
	Diazepam tab 10mg	Phenytoin tab 100mg
	Diclofenac tab 50mg	Propranolol tab 40mg
	Doxycycline cap/tab 100mg	Quinine inj 300mg/5ml
	Erythromycin tab 250mg	Tetracycline eye oint 1%w/v 3.5g
	Furosemide tab 40mg	
7 medicines had over 75% medicine availability	Pyrimethamine with Sulphadoxine tab 25+500mg	Albendazole tab 200mg
	Artemether/Lumefantrine tab 20+120mg	Ciprofloxacin tab 500mg
	Cotrimoxazole tab 80+400mg	Gentamycin inj 80mg/ml
	Oral Rehydration Salt (ORS)	
AVAILABILITY IN THE PRIVATE SECTOR		
Percentage Availability	Medicines	
4 medicines had 50% or of the less medicine availability	Fluconazole tab/cap 200mg	Metformin tab 500mg
	Artemether/Lumefantrine tab 20+120mg	Phenytoin tab 100mg
17 medicines had 50-75% medicine availability	Acyclovir tab 200mg	Amitriptylline 25mg tab
	Albendazole tab 200mg	Bendrofluazide tab 5mg
	Carbamazepine tab 200mg	Ceftriaxone inj 1g
	Betamethasone cream 1%w/v 15g	Dextrose 5% inj 500ml
	Glibenclamide tab 50mg	MethylErgometrine inj 200ug/ml
	Cotrimoxazole susp 80+400mg/ml	Nystatin pessaries 100,000iu
	Furosemide tab 40mg	Propranolol tab 40mg
	Metronidazole susp 200mg/5ml	Quinine inj 300mg/5ml
	Salbutamol inhaler	
19 medicines had over 75% medicine availability	Pyrimethamine with Sulphadoxine tab 25+500mg	Amoxicillin susp 250mg/5ml
	Cotrimoxazole tab 80+400mg	Cimetidine tab 400mg
	Doxycycline tab/cap 100mg	Gentamycin inj 80mg/ml
	Mebendazole tab 100mg	Metronidazole tab 200mg
	Diazepam tab 5mg	Ciprofloxacin tab 500mg
	Omeprazole cap 20mg	ORS
	Nifedipine tab 20mg	Erythromycin tab 250mg
	Amoxicillin cap 250mg	Paracetamol tab 500mg
	Diclofenac tab 50mg	Prednisolone tab 5mg
	Tetracycline eye oint 1%w/v 3.5g	Metronidazole tab 200mg
Nifedipine retard tab 20mg		

## AVAILABILITY IN THE MISSION SECTOR

Percentage Availability	Medicines	
17 medicines had 50% or less medicine availability	Salbutamol Inhaler	Metformin tab 500mg
	Betamethasone cream/ Oint 1%w/v 15g	Glibenclamide tab 5mg
	Metronidazole susp 200mg/5ml	Albendazole tab 200mg
	Amoxacillin susp 250mg/5ml	Fluconazole cap/tab 200mg
	Artemether/Lumefantrine tab 20/120 mg	Nifedipine retard tab 20mg
	Bendrofluazide tab 5mg	Ceftriaxone inj 1g powder
	Cimetidine tab 400mg	Omeprazole cap 20mg
	Cotrimoxazole susp 8/40 mg/ml	ORS
	MethylErgometrine inj200 µg/ml	
23 medicines had 50-75% medicine availability	Cotrimoxazole tab 80+400mg	Erythromycin tab 250mg
	Amoxacillin cap/tab 250mg	Dextrose 5% inj 500ml
	Acyclovir tab 200mg	Quinine inj 300mg/5ml
	Nystatin pessaries 10000i0u	Phenytoin tab 100mg
	Paracetamol tab 500mg	Prednisolone tab 5mg
	Doxycycline tab/cap 100mg	Carbamazepine tab 200mg
	Furosemide tab 40mg	Gentamycin inj 80mg/ml
	Amoxacillin cap/tab 250mg	Mebendazole tab 100mg
	Metronidazole tab 200mg	Diazepam tab 25mg
	Diclofenac tab 50mg	Ciprofloxacin tab 500mg
	Pyrimethamine with Sulphadoxine tab 25+500mg	Metronidazole tab 200mg
	Tetracycline eye ointment 1%w/v 3.5g	

