

## KEY FINDINGS: OVERALL

1. Medicines were more available in private sector health facilities than in public and mission sector facilities.
2. Prices of medicines in the private and mission sector facilities were generally the same.
3. Antiretroviral drugs (ARVs) were available in only a few public and mission facilities; and in none of the private facilities.

## 1. Introduction

The majority of Ugandans cannot readily access the medicines they need due to the high prices charged. To understand more about what people pay for medicines in Uganda, the Ministry of Health in collaboration with the World Health Organization (WHO) and Health Action International (HAI) Africa conducted a countrywide survey on medicine prices in 2004, and recommended a medicine price monitoring system for surveys to be conducted quarterly. This is the first price monitoring report, presenting the survey results for the October-December 2006 quarter.

A sample of 45 key (regularly prescribed and dispensed) medicines was selected to be surveyed for prices (for the lowest priced medicines) and their availability in a total of 73 rural and urban facilities in the four regions of the country – Central, Eastern, Western and Northern. Twenty-nine of these medicines are on the current Essential Drug List for Uganda (EDLU). The facilities surveyed included hospitals and Health Centres II-IV located in rural and urban areas. They included public (government-owned), private and mission/NGO facilities.

## 2. Availability

### KEY FINDINGS: OVERALL

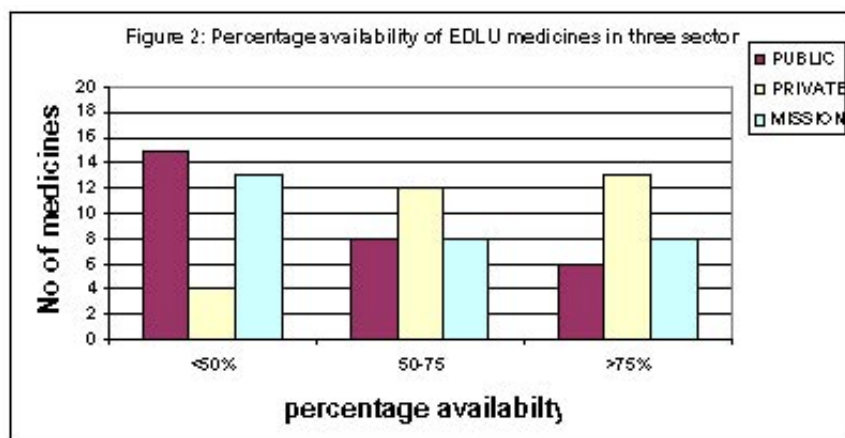
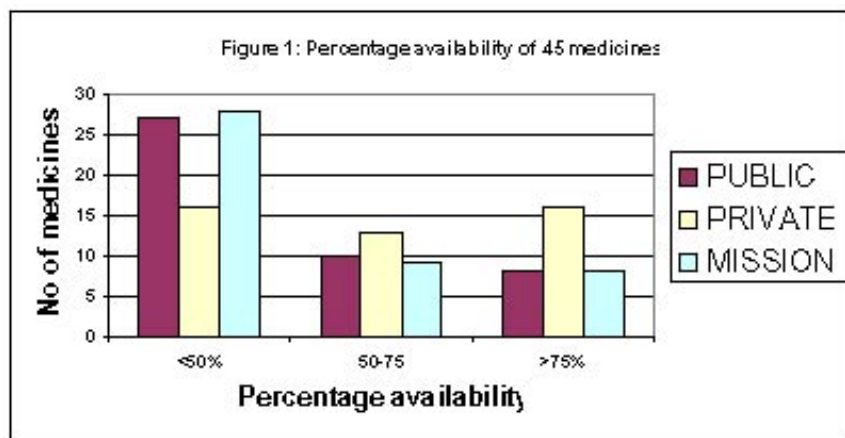
1. In all the sectors, medicines were relatively more available in the urban compared to the rural facilities.
2. Glibenclamide 5mg tab was available in 30% of the Public facilities, 29% of the mission facilities and 69% of the Private facilities. Metformin 500mg tab was available in 22% of the Public facilities, 29% of the Mission facilities and 66% of the Private facilities. These are essential drugs used in the treatment of diabetes.
3. Anti-malarial medicines were more readily available. Sulfadoxine+Pyrimethamine 500mg+25mg tab was available in more than 80% of the facilities. Artemether+Lumefantrine 20+120mg tab was more available in Public facilities (81%) than in Private (38%) and Mission facilities (14%).
4. ARVs were available in less than half of the Public and Mission facilities and in none of the Private facilities. Lamivudine+Stavudine+Nevirapine 155+40+200 mg tab was available in one third of the Public facilities and much fewer (14%) of the Mission facilities. Nevirapine cap 200mg, a drug used in the prevention of mother-to-child transmission, was available in 40% of the Public facilities and 14% of the Mission facilities.

## AVAILABILITY OF MEDICINES IN THREE HEALTH SECTORS

SECTOR	NO. OF FACILITIES	MEDIAN AVAILABILITY
<b>Public:</b> Overall	27	33%
Urban	13	54%
Rural	14	14%
<b>Private:</b> Overall	32	58%
Urban	20	70%
Rural	12	33%
<b>Mission:</b> Overall	14	29%
Urban	7	29%
Rural	7	29%

Public Urban facilities were mainly hospitals and health centre IV's while rural facilities were mainly health centre III's and II's. There is a limitation on the nature of medicines and services provided by these facilities and, as such this explains the differences in the medicines availability.

The sharp difference in availability of medicines in the private Urban facilities (70%) compared to Private rural facilities (33%) is due to the presence of Pharmacies in urban areas compared to drug shops in the rural areas. Drug shops are limited in the scope of medicines to be stocked.



For the Public facilities, Percentage availability of medicines on the EDLU (figure 2) was high compared to the Percentage availability of 45 medicines (figure 1). Of the 29 medicines on the EDLU, 16 medicines were available in more than more than 50 % of the facilities (55% availability). For the 45 medicines, only 18 medicines were available in more than 50% of the facilities surveyed (40% availability). Refer to Annex 1 for Individual drug availability.

### 3. Medicine Prices

#### KEY FINDINGS: MEDICINE PRICES

1. There were no significant differences in medicine prices between the private urban and private rural facilities while the prices of medicines in mission urban facilities were 11% higher than in the rural facilities.
2. There were no significant differences in prices between Private and Mission facilities.

The table shows a summary of the comparisons of medicine prices within and between the private and mission sectors.

**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	1.11	1.00	1.00
No of pairs compared	22	10	13	12

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

	Private Facilities	Mission facilities
Metformin tab 500mg	100/-	100/-
Ranitidine 150mg tab	125/-	100/-
Ceftriaxone 1gm injection	5,750/-	5,000/-
Captopril 25mg tab	100/-	100/-
Cotrimoxazole paed susp 8+40mg/ml	1,000-	900/-

The above drugs are on the essential drug list for Uganda and are among the most commonly prescribed drugs. They were found available in less than 30% of the Public sector facilities.

Annex 2 shows the median prices of individual medicines in the Private and Mission sectors.

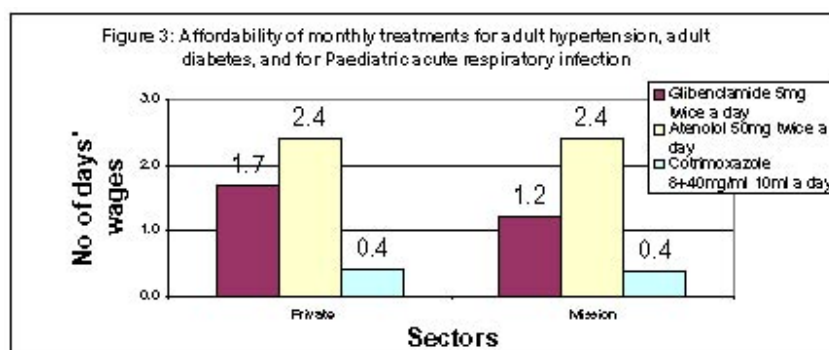
### 4. Affordability

#### 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 Ushs 2,500.

An illustrative example is of a family having a diabetic father on Glibenclamide 5mg, a hypertensive mother on Atenolol 50mg and a child with an acute respiratory tract infection on cortimoxazole 40+8mg/ml suspension.

For this family, it would require four days wages for treatment in the mission facility while treatment from the private facility would require four and a half days' wages. Thus the treatment would be unaffordable in the private and mission facilities for a family with an income equivalent to that of the lowest paid government worker.



## 5. Discussion

The change in anti-malarial policy from Chloroquine-SP combination to Artemisinin Combination Therapy (ACT) as the first line treatment implies that government provides Artemether+Lumefantrine 20+120mg to the public sector facilities and this explains the high availability of this medicine in the Public sector facilities compared to the other two sectors. However, SP is still highly available in all the three sectors.

ARVs are available only in centres accredited by the Ministry of Health. Such centres are the ones deemed to have the capacity to handle ARVs in terms of tests and patient monitoring. Generally, the majority of public sector facilities accredited by the Ministry are regional referral and district hospitals, and a few mission facilities. Health centres do not handle ARVs and this explains why ARVs were in less than half of the Public sector facilities. Private sector facilities make a business decision not to deal in ARVs due to the rigorous accreditation process coupled with the fact that the majority of patients access ARVs freely from accredited Public facilities.

## 5. Conclusion

Much as the Ministry of Health continues to distribute medicines to Public facilities across country, most of the essential medicines cannot be accessed in those facilities, yet in the Private and Mission facilities, prices charged for the medicines are high. With the majority of Ugandans living on less than a dollar a day, they cannot afford the medicines they need.

### Annex 1. Availability of medicines in the three sectors

AVAILABILITY IN THE PUBLIC SECTOR		
Percentage Availability	Medicines	
27 medicines were found in 50% or less of the facilities	Salbutamol Inhaler	Metormin tab 500mg
	Captopril tab 25mg	Glibenclamide tab 5mg
	Ranitidine tab 150mg	Carbamazepine tab 200mg
	Atenolol tab 50mg	Diclofenac tab 50mg
	Nifedipine retard tab 20mg	Losartan tab 50mg
	Furosemide tab 40mg	Fluconazole cap/tab 200mg
	Lamivudine+Stavudine+Nevirapine (155+40+200mg)	Fluconazole cap/tab 150mg
	Zidovudine 300mg tab	Ceftriaxone inj 1g powder
	Lamivudine 150mg	Indinavir 400mg cap
	Lisinopril tab 10mg	Efavirenz tab 200mg
	Haloperidol tab 10mg	Nevirapine cap 200mg
	Cephalexin cap 250mg	Fluoxetine 20mg cap/tab
	Stavudine 40mg tab	Cotrimoxazole paed susp 8+40mg/ml
	Betamethasone cream/ Ointment 1%w/v	
10 medicines were found in 50-75% of the facilities	Phenytoin tab 100mg	Amitriptyline 25mg tab
	Amoxicillin cap/tab 250mg	Erythromycin tab 250mg
	Diazepam tab 25mg	Ketoconazole tab 200mg
	Acyclovir tab 200mg	Metronidazole tab 200mg
	Ciprofloxacin tab 500mg	Rifampicin+Isoniazid (150+100mg)
8 medicines were found in over 75% of the facilities	Pyrimethamine with Sulfadoxine tab 25+500mg	Nystatin pessaries 100,000iu
	Artemether+Lumefantrine tab 20+120mg	Quinine inj 300mg/5ml
	Cotrimoxazole tab 80+400mg	Albendazole tab 200mg
	Methylergometrine inj200 µg/ml	Benzylpenicillin inj 1MU

AVAILABILITY IN THE PRIVATE SECTOR		
Percentage Availability	Medicines	
16 medicines were found in 50% or less of the facilities	Ranitidine tab 150mg	Phenytoin tab 200mg
	Lamivudine+Stavudine+Nevirapine (155+40+200mg)	Losartan tab 50mg
	Zidovudine 300mg tab	Fluconazole cap/tab 200mg
	Lamivudine 150mg	Fluconazole cap/tab 150mg
	Lisinopril tab 10mg	Indinavir 400mg cap
	Haloperidol tab 10mg	Efavirenz tab 200mg
	Stavudine 40mg tab	Fluoxetine 20mg cap/tab
	Artemether+Lumefantrine tab 20+120mg	Rifampicin+Isoniazid 150+100mg
13 medicines were found in 50-75% of the facilities	Captopril tab 25mg	Amitriptyline 25mg tab
	Carbamazepine tab 200mg	Cephalexin cap 250mg
	Glibenclamide tab 50mg	Methylergometrine inj 200ug/ml
	Cortrimoxazole susp 80+400mg/ml	Nystatin pessaries 100,000iu
	Atenolol tab 50mg	Ranitidine tab 150mg
	Ceftriaxone inj 1mg powder	Betamethasone cream 1%w/v
	Metformin tab 500mg	
16 medicines were found in over 75% of the facilities	Pyrimethamine with Sulfadoxine tab 25+500mg	Quinine inj 300mg/5ml
	Cortimoxazole tab 80+400mg	Albendazole tab 200mg
	Salbutamol inhaler	Benzylpenicillin inj 1MU
	Diazepam tab 5mg	Ciprofloxacin tab 500mg
	Nifedipine tab 20mg	Erythromycin tab 250mg
	Amoxicillin cap 250mg	Furosemide tab 40mg
	Diclofenac tab 50mg	Ketoconazole tab 200mg
	Quinine inj 300mg/5ml	Metronidazole tab 200mg

AVAILABILITY IN THE MISSION SECTOR		
Percentage Availability	Medicines	
28 medicines were found in 50% or less of the facilities	Salbutamol Inhaler	Metormin tab 500mg
	Captopril tab 25mg	Glibenclamide tab 5mg
	Ranitidine tab 150mg	Losartan tab 50mg
	Atenolol tab 50mg	Fluconazole cap/tab 200mg
	Lamivudine+Stavudine+Nevirapine (155+40+200mg)	Fluconazole cap/tab 150mg
	Zidovudine 300mg tab	Ceftriaxone inj 1g powder
	Lamivudine 150mg	Indinavir 400mg cap
	Lisinopril tab 10mg	Efavirenz tab 200mg
	Haloperidol tab 10mg	Ceftriaxone inj 1gm
	Cephalexin cap 250mg	Fluoxetine 20mg cap/tab
	Stavudine 40mg tab	Cortrimoxazole paed susp 8+40mg/ml
	Betamethasone cream/ Ointment 1%w/v	Phenytoin tab 100mg
	Rifampicin+Isoniazid (150+100mg)	Amitriptyline 25mg tab
	Nystatin pessaries 100,000iu	Albendazole tab 200mg
9 medicines were found in 50-75% of the facilities	Cortimoxazole tab 80+400mg	Erythromycin tab 250mg
	Methylergometrine inj200 µg/ml	Ketoconazole tab 200mg
	Acyclovir tab 200mg	Quinine inj 300mg/5ml
	Nifedipine retard tab 20mg	Carbamazepine tab 200mg
	Furosemide tab 40mg	
9 medicines were found in over 75% of the facilities	Amoxicillin cap/tab 250mg	Benzylpenicillin inj 1MU
	Metronodazole tab 200mg	Diazepam tab 25mg
	Diclofenac tab 50mg	Ciprofloxacin tab 500mg
	Pyrimethamine with Sulfadoxine tab 25+500mg	Metronidazole tab 200mg
	Artemether+Lumefantrine tab 20+120mg	

## ANNEX 2. MEDIAN PRICES (UG SHS) OF MEDICINES IN THE PRIVATE AND MISSION SECTORS

MEDICINE	Overall Private	Private Urban	Private Rural	Overall Mission	Mission Urban	Mission Rural
Aciclovir tab 200mg	300	300	300	300	350	
Albendazole tab 200mg	500	500	500	425		
Amitriptyline tab 25mg	50	50	50	50	50	
Amoxicillin tab 250mg	50	50	75	50	55	50
Artemether/Lumefantrine tab 20/120mg	816.5	800				
Atenolol tab 50mg	104	104	125	100		
Benzylpenicillin inj 1MU	250	275	250	400	500	27.5
Betamethasone cream/ointment 1%/w/v	1500	1500	1400	1750		
Captopril tab 25mg	100	125		100		
Carbamazepine tab 200mg	100	100	100	100	150	
Cephalexin cap 250mg	250	250	250			
Ceftriaxone 1g powder for inj'n	5750	5500	5750	5000		
Ciprofloxacin tab 500mg	200	200	200	200	100	250
Co-trimoxazole suspension 8/40 mg/ml	1000	1000	1000	900		1000
Co-trimazole tab 400+80mg	30	31.7	25	25	40	25
Diazepam tab 5mg	22.5	25	20	13.4	15	13.4
Diclofenac tab 50mg	50	50	50	50	37.5	50
Efavirenz cap/tab 200mg						
Erythromycin tab 250mg	100	100	100	85	70	100
Fluconazole tab /cap 200mg	1500	1500				
Fluconazole tab/cap 150mg	1250	1500				
Fluoxetine tab/cap 20mg	300	300				
Furosemide tab 40mg	25	30	22.5	22.5		25
Gilbenclamide tab 5mg	70	80	50	50		
Haloperidol tab 10mg	500	500				
Indinavir 400mg				-		
Ketoconazole tab 200mg	500	500	500	375	500	200
Lamivudine + Nevirapine + Stavudine Cap/tab 150/200/30 mg						
Lamivudine cap/tab						
Lisinopril tab 10mg	500	450				
Losartan tab 50mg	500	500				
Metformin tab 500mg	100	100	150	100		
Methyergometrine inj 200ug/ml	600	700	500	500	550	400
Metronidazole tab 200mg	25	25	20	25	22.5	25
Nevirapine 200mg						
Nifedipine retard tab 20mg	100	100	100	100	150	
Nystatin pessaries	200	178.6	225	103.5		
Phenytoin tab 100mg	50	100		75		
Pyrimethamine /sulfadoxide (SP) tab 25/500mg	300	330	217	100	100	133.4
Quinine inj 300mg/5ml	500	500	600	550	750	400
Ranitidine tab 150mg	125	150				
Rifampicin + Isoniazid tab 150+100Mg	250					
Stavudine cap/tab 40mg						
Sulbutamol inhaler 0.1mg (100mcg)/dose	5000	5000	5000	5000	5500	
Zidovudine 100mg						