



# MEDICINE PRICE MONITOR

APRIL 2006

## Key Findings: Overall

- Medicines were more available in private pharmacies than in other sectors
- Even for medicines on the Kenya Essential Drug List, 20 out of 28 of these had below 50% availability in the public sector
- Prices of corresponding medicines found in mission and private urban sector facilities, are on average 12% higher in mission facilities than in private pharmacies
- All medicines surveyed were unaffordable for over 60% of Kenyans
- Antiretrovirals (ARVs) were more available in public sector facilities than in private pharmacies and mission facilities

## 1. Introduction

Reliable access to medicines varies in Kenya particularly due to the high prices charged. The Ministry of Health of Kenya in collaboration with HAI Africa and the World Health Organization conducted a survey on medicine prices in 2005.

One of the recommendations of the report was to conduct regular monitoring of medicine prices to inform the public, procurement agencies, donors about changes in prices over time. In April 2006, a medicine price monitoring system was established to conduct surveys on a quarterly basis. Results showed marked differences in availability

and prices in the public, private and mission sectors.

A total of 85 facilities in 4 provinces of Central, Coast, Eastern and Nairobi were surveyed, including 27 facilities in the public sector, 32 facilities in the private sector and 26 facilities in the mission sector. 36 key regularly prescribed and dispensed medicines were selected. Medicine prices for the lowest priced products and availability of these were measured. 28 of these medicines are on the current Kenya Essential Drug List (KEDL 2003).

## 2. Availability

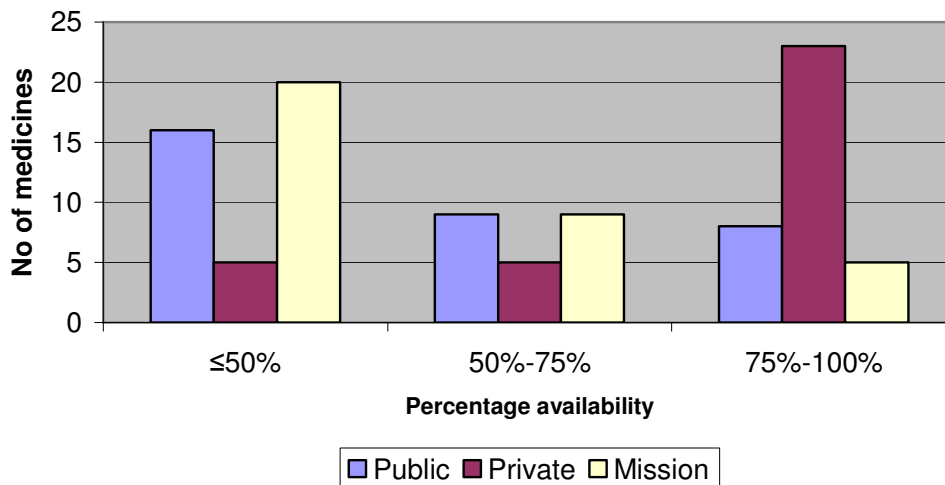
### Key Findings: Availability

- Beclomethasone Inhaler 50mcg/dose which is on the Kenya Essential Drugs List (KEDL) was available in <50% of private pharmacies
- 23 KEDL medicines had an overall availability of >75%
- In the public sector which depends mainly on the EDL for procurement, 20 medicines on the KEDL had an availability of less than 75%.
- In the mission facilities and private pharmacies, ARVs had an availability of less than 50% while in the public sector, Lamivudine + Stavudine+Nevirapine 155+40+200mg had an availability of more than 50%.
- Pyrimethamine + Sulfadoxine 500+25mg had an availability of more than 80% of the facilities in all sectors while the newly introduced antimalarial, Artemether+ Lumefantrine tab 20+120mg was highly available in the private pharmacies ,72%, as to compared to 6%, 31% in the public health facilities and mission facilities respectively .

Sector		No. of facilities	Median availability
<b>Public:</b>	Overall	27	52%
	Urban	16	63%
	Rural	11	36%
<b>Private:</b>	Overall	32	91%
	Urban	16	94%
	Rural	16	94%
<b>Mission:</b>	Overall	26	50%
	Urban	14	50%
	Rural	12	33%

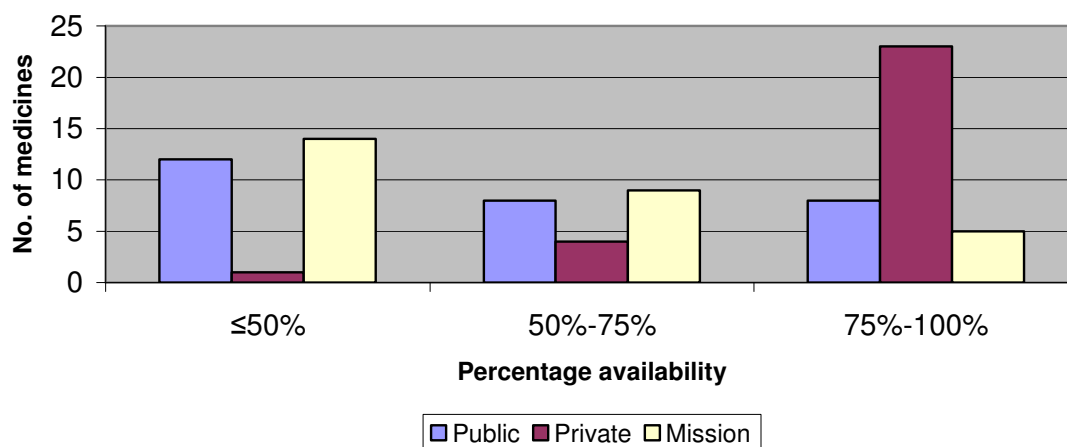
Overall public sector availability was generally low compared with the private and mission sectors. Of the 33 medicines surveyed, the private sector had the highest median availability of 91% followed by the mission sector (50%) and public sector (52%). Generally medicines were more highly available in urban areas<sup>1</sup> of the mission and public sectors compared to rural areas. On the contrary in the private sector availability was 94% and similar for pharmacies in urban and rural areas. Urban public health facilities had a median availability of 63% while the rural facilities had only 36%. Similarly urban mission facilities had a median availability of 50% while the rural facilities had just 33%.

**Percentage availability of 33 medicines in three sectors**



<sup>1</sup> Urban areas are towns with a population of at least 100,000

### Percentage availability of medicines on the KEDL in the three sectors



### 3. Medicines Prices

Median of MPRs - Comparison between and within sectors									
Sectors Compared	Overall Private/ Public <sup>2</sup>	Overall Mission/ Public	PubUrb/ PubRur	PrivUrb/ PrivRur	MisUrb/ MisRur	PrivUrb/ MisUrb	PrivRur/ MisRur	PrivUrb/ Pub Urb	PrivRur/ PubRur
No. of times more expensive	1.44	1.80	0.84	1.00	1.75	0.88	1.26	2.39	1.04
No. of pairs compared	20	21	10	30	21	29	21	19	10

#### Key Findings: Medicines Prices

For corresponding available similar medicines in different sectors:

- Overall private sector medicines prices were 44% higher than in public health facilities
- Overall mission sector prices were 80% higher than in the public sector
- There were no differences in prices between the private urban and private rural pharmacies
- Prices of mission urban facilities were 75% higher than in rural facilities
- Prices of public urban facilities were 16% less than those in public rural facilities
- Prices of private urban facilities were 12% lower than in mission urban facilities
- Private rural facility prices were 26% higher than in mission rural facilities.
- Private urban facilities prices were 139% higher than those in public urban facilities
- Private rural facilities prices were 4% higher than those in public rural facilities.

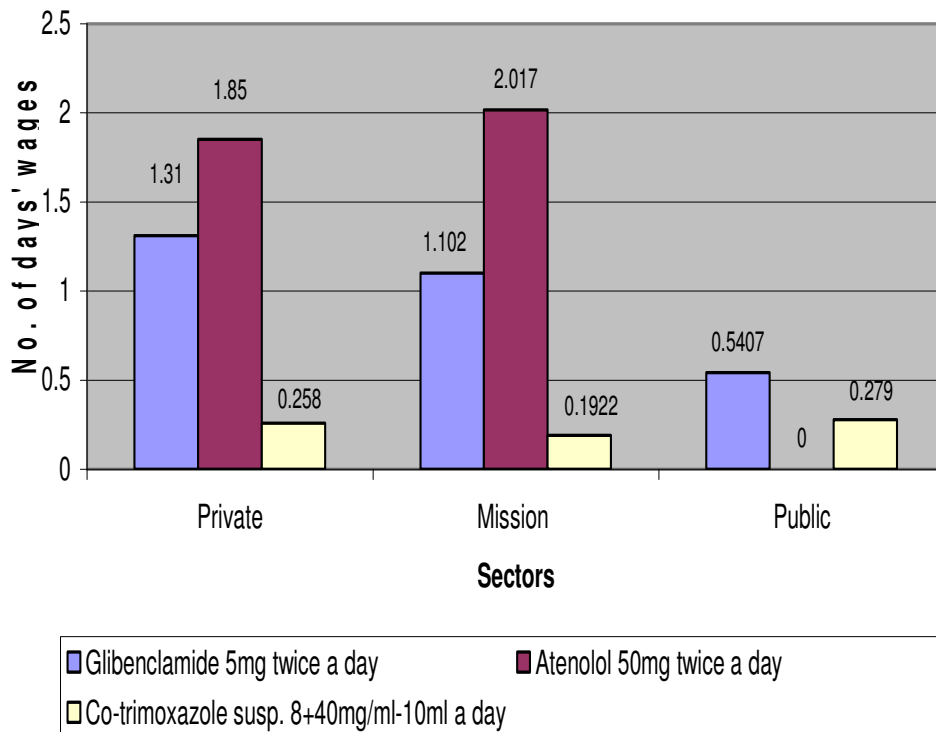
<sup>2</sup> Medicines are supposed to be given free of charge in all public health facilities, but, the policy is not uniform. For this survey, the actual cost of the medicines was recorded for those public health facilities which sell medicines.

#### 4. 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. At the time of the survey, the lowest skilled government worker earned US\$2.33 a day. According to the human development report 2005, 58.3% of the Kenyan population lives on less than US\$2 a day. Therefore affordability for more than 50% of Kenyans will be lower than the lowest paid government worker. The cost of treatment was high in the private and mission sector compared to the public sector (see chart below).

In a family with a diabetic father on glibenclamide, a hypertensive mother taking atenolol and a child with Acute Respiratory Infection (ARI) on cotrimoxazole, the treatments are all unaffordable for the lowest paid government worker in all sectors. Ideally expenditure on medication should be <0.25 days wages. In this case the family of the lowest paid government worker will only be able to afford to pay for the treatment of the child if they are to provide for other essential needs such as transport, food, clothing and shelter.

**Affordability of monthly treatment for adult hypertension and diabetes and for acute child respiratory infection**



## ANNEXES

### Annex 1. Availability in the Public Sector

Percentage Availability	Medicines
16 medicines were found in 50% or less of facilities	<ul style="list-style-type: none"> <li>○ Aciclovir tab 200mg</li> <li>○ Amoxicillin/Clavulanic acid susp. 125/31mg/ml</li> <li>○ Amoxicillin/Clavulanic acid tab 500/125mg</li> <li>○ Artemether/Lumefantrine tab 20/120mg</li> <li>○ Atenolol 50mg</li> <li>○ Beclomethasone inhaler 50mcg/dose</li> <li>○ Captopril tab 25mg</li> <li>○ Ciprofloxacin tab 500mg</li> <li>○ Diclofenac tab 25mg</li> <li>○ Fluoxetine tab 20mg</li> <li>○ Ibuprofen tab 400mg</li> <li>○ Metformin tab 500mg</li> <li>○ Nifedipine retard tab 20mg</li> <li>○ Ranitidine tab 150mg</li> <li>○ Salbutamol inhaler 100mcg/dose</li> <li>○ Zidovudine/Lamivudine 150/300mg</li> </ul>
9 Medicines were found in 50-75% of facilities	<ul style="list-style-type: none"> <li>○ Ceftriaxone inj 1g</li> <li>○ Clotrimazole cream 1%</li> <li>○ Cotrimoxazole paed. suspension 48g/ml</li> <li>○ Fluconazole tab 200mg</li> <li>○ Fluphenazine inj 25mg/ml</li> <li>○ Glibenclamide tab 5mg</li> <li>○ Lamivudine/Stavudine/Nevirapine 155/40/200mg</li> <li>○ Omeprazole tab 20mg</li> <li>○ Phenytoin tab 100mg</li> </ul>
8 medicines were found in over 75% of the facilities	<ul style="list-style-type: none"> <li>○ Amitriptyline tab 25mg</li> <li>○ Amodiaquine tab 200mg</li> <li>○ Amoxicillin caps 250mg</li> <li>○ Carbamazepine tab 200mg</li> <li>○ Cotrimoxazole tab 480mg</li> <li>○ Diazepam tab 5mg</li> <li>○ Furosemide tab 40mg</li> <li>○ Pyrimethamine + Sulfadoxine tab 25+500mg</li> </ul>

## Annex 2. Availability in Private Pharmacies

Percentage availability	Medicines
5 medicines were found in 50% or less of pharmacies	<ul style="list-style-type: none"> <li>○ Beclomethasone inhaler</li> <li>○ Diclofenac tab 25mg</li> <li>○ Fluoxetine tab 20mg</li> <li>○ Lamivudine/Stavudine/Nevirapine 155/40/200mg</li> <li>○ Zidovudine/Lamivudine 150/300mg</li> </ul>
5 medicines were found in 50-75% of pharmacies	<ul style="list-style-type: none"> <li>○ Aciclovir tab 200mg,</li> <li>○ Artemether/Lumefantrine tab 20/120mg</li> <li>○ Fluconazole 200mg</li> <li>○ Fluphenazine inj 25mg/ml</li> <li>○ Phenytoin tab 100mg</li> </ul>
23 medicines were found in over 75% of pharmacies	<ul style="list-style-type: none"> <li>○ Amitriptyline tab 25mg</li> <li>○ Amodiaquine tab 200mg</li> <li>○ Amoxicillin tab 250mg</li> <li>○ Amoxicillin/Clavulanic acid susp 125/31mg/ml</li> <li>○ Amoxicillin/Clavulanic acid tab 500/125mg</li> <li>○ Atenolol tab 50mg</li> <li>○ Captopril tab 25mg</li> <li>○ Carbamazepine tab 200mg</li> <li>○ Ceftriaxone inj. 1g</li> <li>○ Ciprofloxacin tab 500mg</li> <li>○ Clotrimazole cream 1%</li> <li>○ Cotrimoxazole susp 480mg/ml</li> <li>○ Cotrimoxazole tab 480mg</li> <li>○ Diazepam tab 5mg</li> <li>○ Furosemide tab 40mg</li> <li>○ Glibenclamide tab 5mg</li> <li>○ Ibuprofen tab 400mg</li> <li>○ Metformin 500mg</li> <li>○ Nifedipine retard 20mg</li> <li>○ Omeprazole tab 20mg</li> <li>○ Sulfadoxine/Pyrimethamine 500/25mg</li> <li>○ Ranitidine tab 150mg</li> <li>○ Salbutamol inhaler 100mcg/dose</li> </ul>

### Annex 3. Availability in the Mission Sector

Percentage availability	Medicines
19 medicines were found in 50% or less of facilities	<ul style="list-style-type: none"> <li>○ Aciclovir tab 200mg</li> <li>○ Amoxicillin/Clavulanic acid susp. 125/31mg/ml</li> <li>○ Amoxicillin/Clavulanic acid tab 500+125mg</li> <li>○ Artemether/Lumefantrine 20/120mg</li> <li>○ Atenolol tab 50mg</li> <li>○ Beclomethasone inhaler 50mcg/dose</li> <li>○ Captopril tab 25mg</li> <li>○ Carbamazepine tab 200mg</li> <li>○ Ceftriaxone inj. 1g</li> <li>○ Ciprofloxacin tab 500mg</li> <li>○ Diclofenac tab 25mg</li> <li>○ Fluconazole tab 200mg</li> <li>○ Fluoxetine tab 20mg</li> <li>○ Fluphenazine inj 25mg/ml</li> <li>○ Lamivudine/Stavudine/Nevirapine 155/40/200mg</li> <li>○ Omeprazole tab 20mg</li> <li>○ Ranitidine tab 150mg</li> <li>○ Sabutamol inhaler 100mcg/dose</li> <li>○ Zidovudine/Lamivudine 150/300mg</li> </ul>
9 medicines were found in 50-75% of facilities	<ul style="list-style-type: none"> <li>○ Amitriptyline tab 25mg</li> <li>○ Amodiaquine tab 200mg</li> <li>○ Cotrimoxazole paed. susp 240mg/5ml</li> <li>○ Glibenclamide tab 5mg</li> <li>○ Ibuprofen tab 400mg</li> <li>○ Metformin tab 500mg</li> <li>○ Nifedipine tab 20mg</li> <li>○ Phenytoin tab 100mg</li> <li>○ Sulfadoxine/Pyrimethamine 500/25mg</li> </ul>
5 medicines were found in over 75% of facilities	<ul style="list-style-type: none"> <li>○ Amoxicillin 250mg</li> <li>○ Clotrimazole cream 1%</li> <li>○ Cotrimoxazole tab 480mg</li> <li>○ Diazepam tab 5mg</li> <li>○ Furosemide tab 40mg</li> </ul>

## Annex 4. Median Prices of Medicines in All Sectors

Medicine	Overall Public	PubUrb	PubRur	Overall Private	PrivUrb	PrivRura	Overall Mission	MissUrb	MissRur
	Median	Median	Median	Median	Median	Median	Median	Median	Median
Aciclovir tab 200 mg	0.214	0.214	0.24955	0.39665	0.3857	0.428	0.571	0.671	0.3807
Amitriptyline tab 25 mg	0.0107	0.0095	0.01295	0.0142	0.0142	0.0142	0.0142	0.0238	0.0142
Amodiaquine tab 200mg	0.01942	0.01942	0	0.0714	0.0637	0.0755	0.0428	0.0595	0.0317
Amoxicillin caps/tab 250 mg	0.0238	0.0259	0.0238	0.035705	0.0321	0.036055	0.0428	0.0428	0.03925
Amoxicillin/clavulanic susp 125/31mg/ml	0.01425	0.01425	0	0.0666	0.06785	0.065895	0.0571	0.0642	0.03655
Amoxicillin/clavulanic tab 500/125mg	0.2397	0.2397	0	1.0714	1.114	1.0357	0.964	0.964	1.0385
Arthemether +Lumefantrine tab 20+120mg	0.398	0.398	0	0.3393	0.3411	0.3392	0.3833	0.381	0.7785
Atenolol tab 50 mg	0.1211	0.028	0.2142	0.1443	0.15	0.14385	0.1567	0.1714	0.0857
Beclometasone inhaler 50 mcg/ dose	0.0007	0	0.0007	0.04105	0.04105	0.0403	0.05	0.05	0.0464
Captopril tab 25 mg	0.142	0.1067	0.142	0.142	0.1705	0.142	0.428	0.428	0
Carbamazepine tab 200 mg	0.0214	0.017	0.0248	0.0571	0.04285	0.0571	0.0571	0.0571	0.0464
Ceftriaxone inj 1 g powder	1.057	0.714	3.5714	3.428	3.214	3.571	4	2.857	4.5
Ciprofloxacin tab 500 mg	0.1762	0.0432	0.28335	0.142	0.142	0.142	0.0857	0.0857	0.142
Clotrimazole cream/oint 15%/w/v	0.02571	0.0357	0.0231	0.0357	0.0321	0.0357	0.0357	0.04175	0.0284
Co-trimoxazole paed susp. (8+40) mg/mL	0.0086	0.0086	0.0085	0.00925	0.00925	0.009035	0.0064 2	0.0071	0.00508 5
Co-trimoxazole tab 80/400mg	0.0357	0.0357	0.0357	0.028	0.0214	0.02845	0.0284	0.0284	0.0284
Diazepam tab 5 mg	0.0194	0.014	0.028	0.0142	0.0142	0.0285	0.0142	0.0284	0.0142
Diclofenac tab 25 mg	0.055	0.01	0.1	0.0678	0.07141	0.05712	0.0571	0.0571	0
Fluconazole caps/tab 200 or 150mg	1.267	0.392	2.142	2.142	1.8571	2.4995	0.8571	1.9747	0.8571
Fluoxetine cap/tab 20 mg	0.1539	0.1539	0	0.4286	0.5429	0.3873	0.5	0.4425	0.5714
Fluphenazine inj. 25mg/ml	0.714	0.714	1.4635	2.142	2.3567	2.142	1.6355	1.2995	1.707
Furosemide tab 40mg	0.014	0.014	0.014	0.0142	0.0142	0.0142	0.0142	0.0284	0.0142
Glibenclamide tab 5 mg	0.021	0.014	0.05714	0.051	0.0509	0.05405	0.0428	0.0428	0.02
Ibuprofen tab 400mg	0.028	0.019	0.0285	0.0285	0.0285	0.0285	0.0284	0.0356	0.0284
Metformin tab 500 mg	0.0238	0.0238	0.00714	0.07563	0.083315	0.07148	0.0714	0.1	0.0571
Lamivudine+Stavudine+Nevirapine 155+40+200mg	0.0237	0.0237	0.0237	0.614	0	0.614	0.1009 5	0.31045	0.0238
Nifedipine retard 20mg	0.0286	0.0286	0.12125	0.1143	0.1	0.142	0.0513 5	0.09955	0.0428
Omeprazole caps 20 mg	0.0475	0.04725	0.116	0.285	0.285	0.27105	0.1714	0.214	0.0905
Phenytoin 100 mg	0.0119	0.0119	0	0.0142	0.0285	0.0142	0.0284	0.0428	0.01985
Pyrimethamine with sulfadoxine (25+500) mg	0.11855	0.0951	0.142	0.0952	0.0714	0.09635	0.0714	0.0714	0.0714
Ranitidine tab 150 mg	0.114	0.0714	0.178	0.1142	0.0714	0.142	0.0857	0.1	0.05705
Salbutamol inhaler 0.1 mg/ dose	0.0194	0.014	0.0248	0.0228	0.0224	0.0228	0.0196	0.0284	0.01595
Zidovudine+ Lamivudine 150+300mg tab	0	0	0	0.5237	0.5237	0	0.428	0.5925	0.428

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