

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH AND SOCIAL WELFARE



# Medicine Price Monitor

September 2012

## Key Findings: Overall

Medicines were more available in health facilities in the Mission sector ((53%) than in the Private (45%) and Public (35%) sectors. All surveyed medicines in all sectors were on the National Essential Medicines List for Tanzania (NEMLIT 2007).

Prices of medicines in health facilities in the Private and Mission sectors were still higher than in the Public sector compared to previous monitoring studies.

ALU was found in both urban and rural public health facilities. Antiretroviral (ARV) medicines were more available in the Public (60%) than in the Mission (34%). The Overall availability in the public sector raised from 34% July 2009 to 60% September 2012 for Stavudine/Lamivudine/Niverapine 30/150/200mg. For 4T/3TC/NVP 40 mg availability dropped from 3% July 2009 to 0% September 2012 in line with the new treatment guidelines.

## 1. INTRODUCTION

Equitable access to quality pharmaceuticals is an essential component of health system strengthening and primary health care reform, particularly in low- and lower-middle income countries. Availability and affordable prices are therefore essential to ensuring access to medicines and are one of the building blocks in the WHO access to medicines framework (WHO website).

In Tanzania, several medicine pricing monitoring activities have shown that medicine availability and prices are still a major barrier to reliable access to essential medicines (Price Monitor July 2008, 2009)<sup>1</sup>. The Ministry of Health and Social Welfare in collaboration with the World Health Organization (WHO) and Health Action International (HAI) Africa have been conducting periodic surveys to monitor medicine prices since 2006. Results of the four surveys showed a slight increase of availability of the medicines as compared to the results of a previous study on medicine pricing conducted in 2004. This however is still not optimum. The current report is a result of the price monitoring conducted in September 2012 as a follow up of the previous surveys of November 2006, June-July 2007, July 2008 and July 2009 showing availability as well as price variation in three sectors namely, the Public, Private and Mission sectors. In the current survey, Accredited Drug Dispensing Outlets (ADDO) have been included in the survey as one of the private pharmaceutical outlets found in rural areas..

Prices of fifty key medicines found on the current National Essential Medicines List for Tanzania (NEMLIT)<sup>2</sup> were monitored. The survey took place in 108 rural and urban health facilities in five regions namely Dar es Salaam, Mwanza, Mbeya, Morogoro and Mtwara. The health facilities surveyed included 36 facilities in the Public sector, 38 in the Private sector and 34 in the Mission sector.

## 2. AVAILABILITY OF MEDICINES

### *Key findings: Overall availability*

In all the three sectors, medicines were relatively more available in health facilities in the urban areas as compared to the rural areas. This trend has been the same since 2004.

Availability of some key medicines showed some mixed results as follows:

The availability of ALU was surveyed for adult with (for Affordable Medicines Facility for Malaria) and without logo and for dispersible tablets for children. For adults the overall availability dropped from 75% in July 2009 to 35% in September 2012 in the Public sector facilities. This indicates that availability of ALU has a problem in the distribution in both urban and rural public health facilities. The availability of ALU in the Private dropped from 45% in July 2009 to 35% in September 2012. Similarly, for the Mission sectors, it also dropped from 58% in July 2009 to 30% in September 2012. The availability of the ALU with logo was found more in the private (63%) than in the public (45%) and Mission (43%) health facilities. For the dispersible ALU, it was more available in the public (68%) than in the private (38%) and mission (33%) health facilities.

The availability of ARVs had dropped for, Stavudine/Lamivudine/Nevirapine (d4T/3TC/NVP) 30/150/200mg from 81 - 60%, while the availability for (d4T/3TC/NVP) 40/150/200mg decreased from 3 to 0% in the Public health facilities. The mission health facilities had increased availability of d4T/3TC/NVP) 30/150/200mg from 21% July 2009 to 33% September 2012 and for d4T/3TC/NVP) 40/150/200mg remained at 3%. as that of July 2009

Sulphadoxine/Pyrimethamine (SP) for IPT for pregnant women went up from 50% July 2009 to 60% September 2012 in the public health facilities. In the other two sectors SP availability remained almost the same 80% (79% 2009) in the Private and dropped from 64% July 2009 to 53% September 2012 in the mission sectors.

Figure 1: Comparison of trend for overall availability of medicines in the Public, Private and Mission sectors between November 2006, June 2007 July 2008 and 2012 September

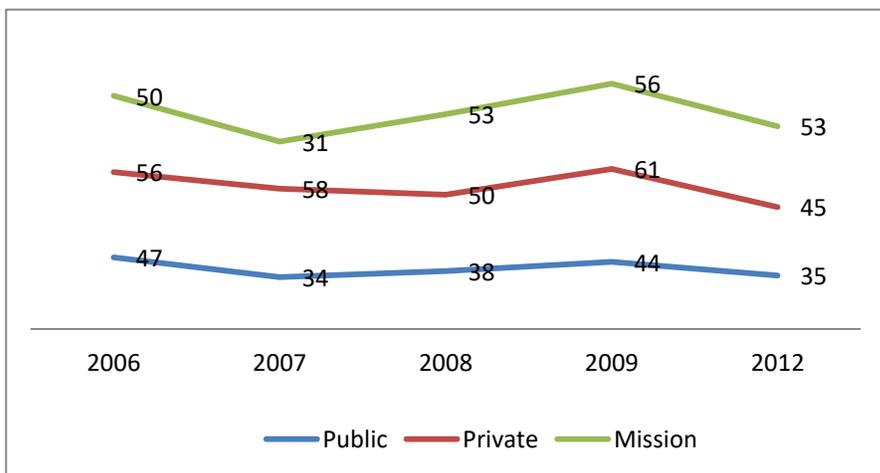
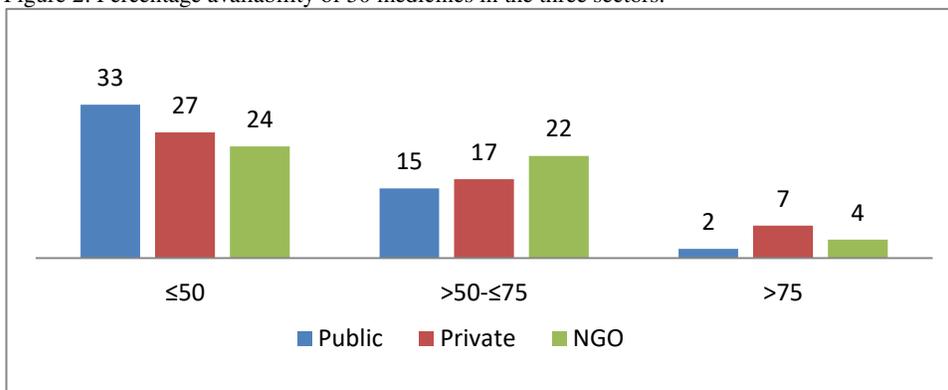


Figure 2 shows the number of medicines found in the health facilities. Of the 50 medicines surveyed, 33 (66.0%), 27 (54%) and 24 (48%), were available in up to 50% of Public, Private and Mission health facilities. On the other hand 15 (30%), 17 (34.0%) and 22 (44%) medicines were available in more than 50% to 75% of the Public, Private and Mission health facilities. Similarly, availability of more than 75%, 2 (4%), 7 (14%) and 4 (8%) were found in public, private and mission health facilities respectively.

Figure 2: Percentage availability of 50 medicines in the three sectors.



### 3. MEDICINE PRICES

#### Key Findings: Medicine Prices

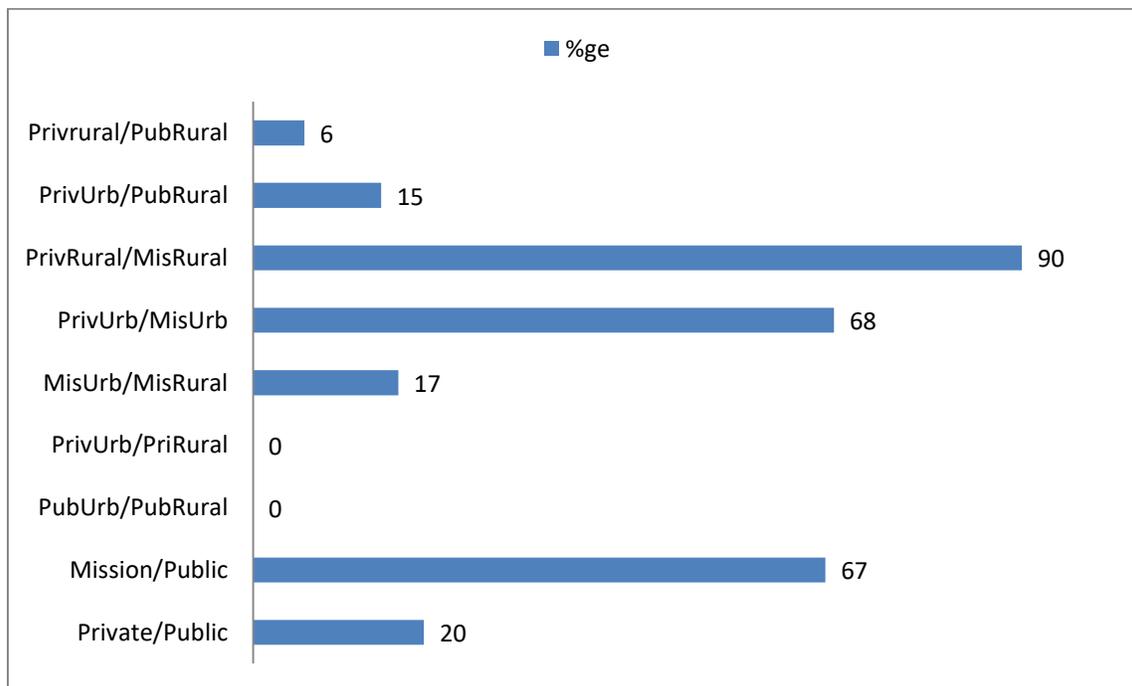
For similar pairs of medicines surveyed prices in the private and mission sectors were 20% and 67% higher than in the Public health facilities respectively. Prices in urban public and private health facilities were the same as those in the rural Public and Private health facilities.

The prices in the urban mission were 17% higher than mission rural while for those of urban private were 68% higher than those of urban Mission health facilities

The prices in the private rural were 90% higher than Mission rural health facilities. Prices in the urban Private health facilities were 15% higher than those in urban Public health facilities. Prices in the rural Private health facilities were 8% higher than those of rural Public health facilities.

Figure 3 shows a summary of the comparison of medicine prices within and between the three sectors. During this survey, the medicine prices in urban public and private were the same while in the previous one (2009) prices were higher in the rural than those in the urban public and private as seen in the figure 3.

Figure 3: Median of Medicine Prices – comparisons between and within the sectors

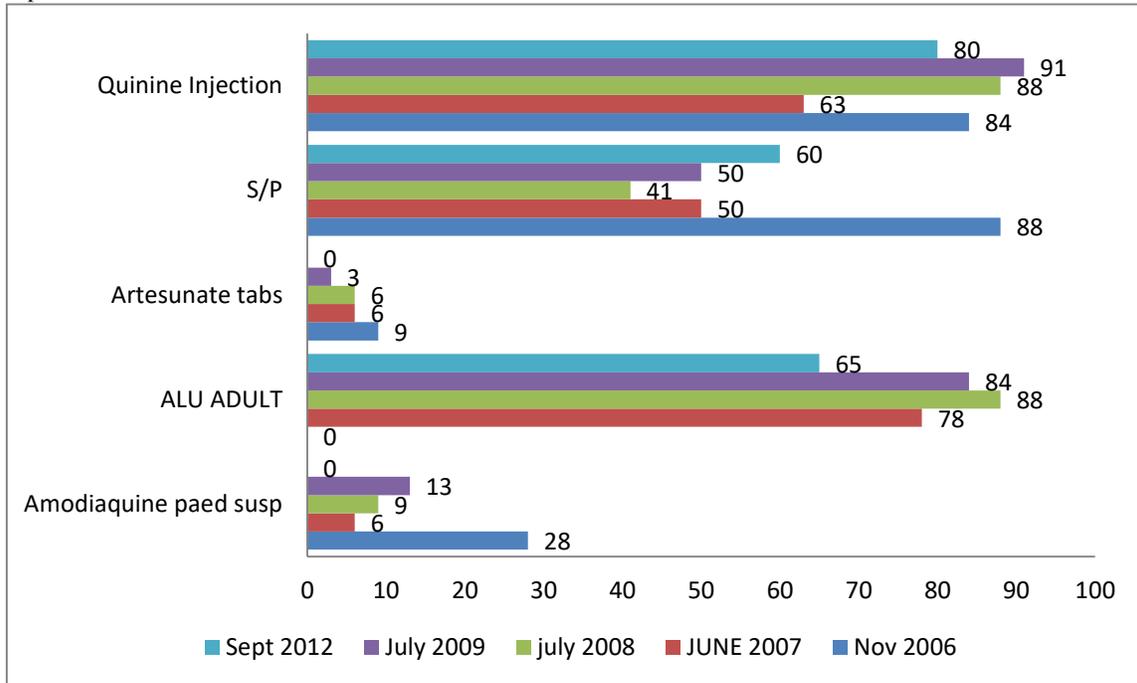


#### FINDINGS FOR SELECTED MEDICINES

##### **Antimalarials.**

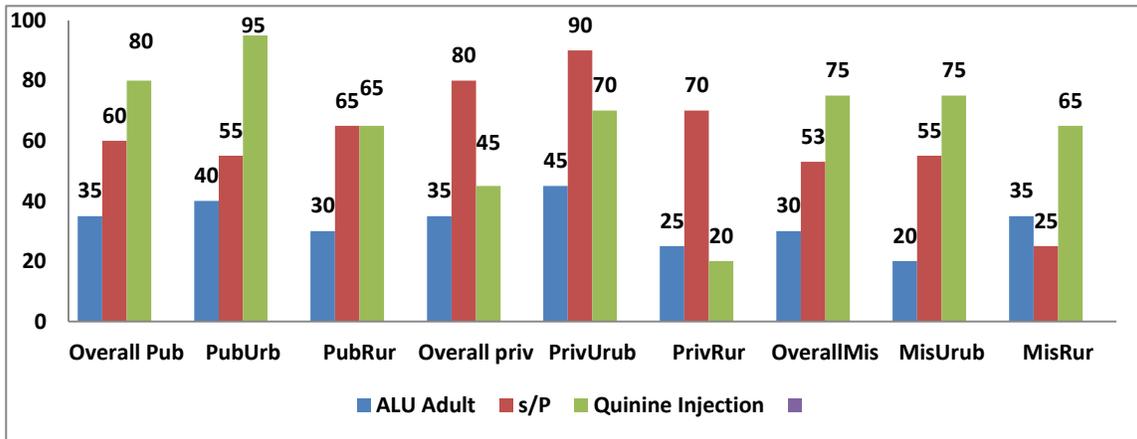
Malaria is the highest cause of morbidity in adults and children in Tanzania. Artemether + lumefantrine 20+120mg (ALu), which is now the recommended first line treatment for uncomplicated malaria since 2006, was still found in over 75% of health facilities in the public sectors as in 2007, 2008 and 2009 although slightly lower in 2012 (figure 4). This is a positive finding, in line with the malaria treatment guidelines. However SP, which is only recommended for use in pregnancy, its increase was slight in the public sector and it dropped in the mission sector. There is need to continue to sensitize workers to prescribe SP for pregnant women particularly in Malaria endemic areas. . The continuous fall in percentage availability of both Artesunate and amodiaquine to zero is a good sign because they monotherapies are no longer recommended for use in malaria treatment. Having high availability would affect full implementation of the new malaria treatment guidelines. For quinine, the availability is still being continuously constantly high for the five surveys indicating that the guidelines for the treatment of severe malaria are well adhered to by all the sectors.

Figure 4: Trends in percentage availability of selected antimalarials in the public sector November 2006- July to September 2012



The availability of antimalarials in the three sectors in figure 5 below indicates the same trend as in figure 4 above where quinine and ALU remained constantly high, while S/P continued to decrease.

Figure 5: Comparison of percentage availability of antimalarials in the 3 sectors in Sept 2012



In both the private, ADDO included, and mission urban and rural health facilities surveyed in all five regions ALU availability was on the average lower than in the public health facilities. The prices were the same in the public sector and both Private Rural and Mission Rural health facilities. Artesunate tablets and amodiaquine were not included in the survey list of medicine as no longer found in the essential list.

The median price for ALU was lower in the rural areas than in the urban as were being monitored by the government more closely than the urban although both were selling the subsidized brand. Considering that the price is per tablet (fixed combination), for 24 tablets the actual price range from Tsh. 2,000 Public, 3,000 Mission to 5,000 Private Sectors.

It is shocking to see the price of ALU in Mission HF to be 1.7times (over all) 2.5 times (Urban) and 1.2 times that of Public considering that both Public and Mission purchase their ALU from Medical Stores Department. For quinine injection, the median price is higher in the Mission HF in both Urban and Rural selling at Tsh. 809 and 1000per ampoule respectively compared to Public and Private. In Private HF the prices were higher in the Rural than in Urban HFs.(Fig. 6)

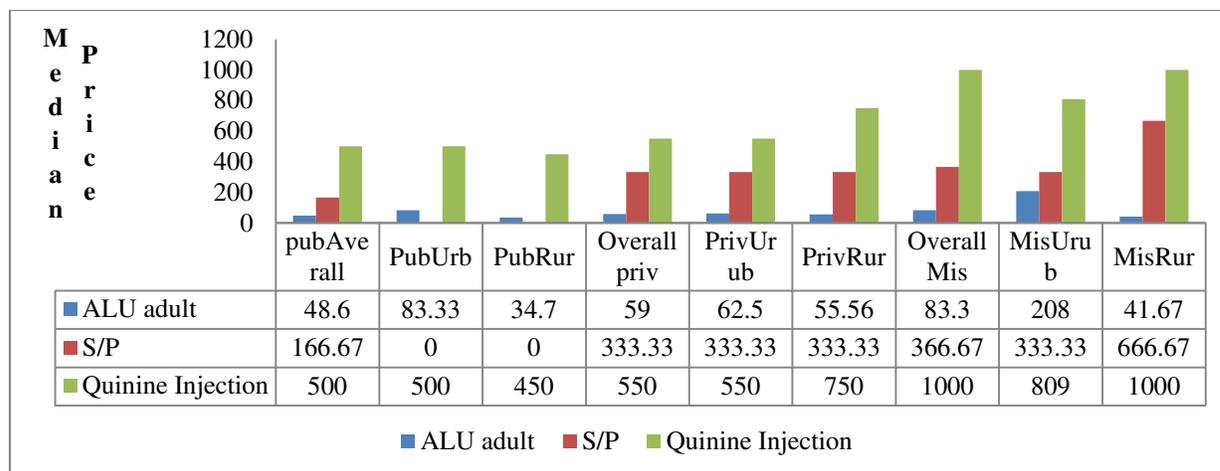


Figure 6: Median price comparison of antimalarial in the three sectors

#### 4. Availability of paediatric formulations

The paediatric formulations surveyed are shown in table 2. ALU was found to be more available in the public than in the other two sector health facilities. The availability in the Public varied between 65% to 70% while in the other sectors was below 50%. For ORS the availability was on the average high in all three sectors. The co-trimoxazole suspension, paracetamol suspension and zinc dispensable tablets were more available in the private sector. The absence of Zinc dispensable tabs in the public and mission sectors is a sign that the new guidelines for management of diarrhea are not yet assimilated. This is not a good sign because diarrhea is among the top ten children diseases in the country.

Table 1: Availability of paediatric formulations

% availability	PubOverall	PubUrb	PubRur	Overall priv	PrivUrb	PrivRur	OverallMis	MisUrb	MisRur
ALU disp. tabs	68	65	70	38	40	35	33	15	45
Co-trimaxazole susp	30	30	30	75	85	65	58	60	55
ORS Osmol	65	70	60	68	80	55	70	60	60
Paracetamol syr	30	45	15	75	75	75	58	70	40
Zinc Disp. Tabs	40	45	35	70	85	55	40	40	40

#### 4. AFFORDABILITY

Affordability is calculated in terms of the days the lowest paid civil servant 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 civil servant has changed since July 2009 from Tshs. 3,613/= per day to 5667/=. The cost of treatment of malaria for adult with the currently first-line antimalarial medicine ALU has dropped from 3.32 days' wages in Private, to 0.25day's wage because of the subsidized rates. For public sector it went up a bit from 0.14 days' wage to an average of 0.24 day's wage (Pub Overall, PubUrb and PubRur) while in the Mission sectors dropped from 2.49 days' wage to 0.47 day's wage. In the Public and the mission sectors ALU is subsidized, so this times the prices in the mission sector dropped, costing a patient less than a days' wage. These results showed that by the MOH&SW monitoring the patient's prices on surprise check has dropped the prices even in the private.

When using an illustrative example of a family with a diabetic and hypertensive father on glibenclamide 5 mg and nifedipine 20 mg a mother with malaria on ALu and a child having acute respiratory tract infection on co-trimoxazole suspension 8 + 40 mg/ml it will take 1.45 days wage in the Public sector, 1.66 days wages in the Private sector, 1.94 days wages in the Mission sector for the family to afford the required medicines. The prices were highest in the Mission. followed by the retail pharmacies then public sector.

## 5. DISCUSSION:

### Availability

Medicines were more available in health facilities in the Mission sector ((53%) than in the Private (45%) and Public (35%) sectors as shown in figure 1. In this monitoring survey, 66% (33/50) of medicines were available in up to 50% of the Public health facilities. This is the same as that observed in July 2009, which was 65.8% (27/40) available in 50% of the facilities. Probably there was no change was observed because the PUSH system to the PULL system in the health facilities was complete thus their orders with MSD according to their needs could be better to attain higher availability.

ALu as first line treatment for malaria was found to lower than 50% compared to the previous survey (2009) where availability was 78% in more than 75% of the health facilities in the Public sector as observed in the two years, July 2007(78%) and July 2008 (88%). With regards to SP which is used for intermittent preventive treatment (IPT) for pregnant women, its availability went up a bit from 47% July 2000 to 60% September 2013 for the Public sector. The slight rise of SP is due to the continuous use in IPT.

The availability of ARVs went up for, Stavudine/Lamivudine/Nevirapine (d4T/3TC/NVP) 30/150/200mg from 34% to 60% while availability for (d4T/3TC/NVP) 40/150/200mg decreased from 3% to 0% in the Public health facilities. The continuous drop of d4T/3TC/NVP 40mg in stock is due to withdrawal of this product from the ART program because of observed side effects. The availability of the ARVs is not satisfactory in all sectors surveyed because out of the accredited HIV treatment centres only a few out of the 43 such facilities stocking ARVs. This is an indication that there was no close monitoring/supervision of health facilities and supply management procedures were not well followed therefore the minimum stock outs were not maintained.

The medicines for chronic diseases, asthma, diabetes and hypertension were all available in all surveyed areas. The medicines are salbutamol for asthma, metformin and glibenclamide for diabetes and captopril and nifedipine for hypertension. Since these medicines are life saving they should be readily available as they are listed in the current NEMLIT, 2007. Oral rehydration salts (ORS) was available in 65% in public, 68% in private health facilities, while in mission was 70% availability.

### Price and Affordability

ALu is a subsidized medicine in the Public sector making it affordable to the majority of the patients; however, a patient has to work for more hours 0.21 (1.68 hrs) compared to 0.14 days' wage (1.23hrs) 2009 to get a course of ALu. As for the Private and Mission sectors the availability was 35 % and 30 % respectively. ALu is now affordable in the private sectors as it takes 0.25 as opposed to 3.32 days' wage to pay for a treatment in 2009. The treatment price in Mission hospitals dropped from 3.32 to 0.35 days wage was because of getting ALu from MSD free of charge and strict monitoring by the MOH&SW.

The prices of medicines were still more expensive in the private and mission sector. Considering affordability as a criterion for accessibility, it must be noted that about 30% and 50% of Tanzanians in urban and rural areas, respectively live on less than one US dollar a day thus highlighting the barrier on access to medicines. However, the price of ALu was noted to be very high in mission health facilities. The reason could be shops were selling same ALU from MSD but made a high profit to cover their other running costs of the facility.

## 6. Conclusions:

The low availability of medicines in the public health facilities, suggests that, a large population seeking treatment has to purchase their medicines from the private and mission sectors where they are available but expensive.

## 7. Recommendations:

**The low availability of medicines suggests that the supply system needs to be strengthened particularly at the facility levels. Similarly, the government should put in place mechanism to facilitate timely remittance of funds to enable health facilities to order their requirements from MSD.**

Essential medicines should always be available at more than 75 % in all health facilities.

Stock control especially in public health facilities should be improved

Supervision and monitoring of medicines at district and regional levels should be enhanced.

ARVs availability should constantly be monitored, supervised and be available in all accredited care and treatment centers.

Prices should be monitored regularly to facilitate informed decision so as to improve affordability.

SP should always be available in all health facilities for IPT

ANNEXES

Annex 1: Characteristics Facilities included in the survey

Public sector	Private Sector	Mission Sector
Teaching Hospital (3) Regional Hospitals (5) District Hospitals (8) Sub-district hospitals (4) Heath Centers (13) Dispensaries (10)	Retail Pharmacies (20) Medical store - Duka la DawaBaridi (16) ADDO (6)	Teaching Hospitals (2) Hospitals (14) Health centers ( 14) Dispensaries (11)

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References: <sup>1</sup>MOHSW, Survey of the medicine Prices in Tanzania, 2004

<sup>2</sup>MOHSW, The EMLIT (2007) is the most current national EML

<sup>3</sup>The Medicine price monitor for Kenya

<sup>4</sup>The Medicine price monitor for Uganda

<sup>5</sup>CSSC/MCP, 2008 report

Annex 5 median Prices (Tsh) of Medicines in all sectors

Medicine	Overall Public	Public Urban	Public Rural	Overall Private	Private Urban	Private Rural	Overall Mission	Mission Urban	Mission Rural
Aciclovir tab 200 mg				250.00	300.00		300.00	250.00	300.00
Albendazole tab 200mg	200.00	100.00	200.00	300.00	250.00	450.00	250.00	500.00	200.00
Amitriptyline tab 25 mg		30.00	10.00	50.00	50.00		50.00	50.00	30.00
Amodiaquinepaedsyr				16.67	16.66	16.67	16.66	16.66	16.66
Amoxicillin caps/tab 250 mg	35.00	33.33	37.50	50.00	50.00	50.00	50.00	50.00	40.00
Arthemether +Lumefantrine tab 20+120mg	20.83	20.40	20.83	520.83	500.00	562.50	20.83	416.67	20.83
Artesunate 100 mg tab				1000.00					
Atenolol tab 50 mg	100.00	100.00		90.36	95.00		100.00	100.00	50.00
Benzyl penicillin 5mega units	400.00	400.00	400.00	600.00	600.00	600.00	500.00	600.00	500.00
Captopril tab 25 mg	100.00	100.00		100.00	100.00		100.00	150.00	100.00
Carbamazepine tab 200 mg				100.00	100.00		100.00	125.00	100.00
Ceftriaxone inj 1 g powder	1500.00	2000.00	700.00	3000.00					

Ciprofloxacin tab 500 mg	110.00	100.00	150.00	150.00	150.00	200.00	150.00	150.00	150.00
Co-trimoxazolepaedsusp. (8+40) mg/mL	5.50	5.00		10.00	10.00	10.00	10.00	10.00	10.00
Diazepam tab 5 mg	10.00	11.67	10.00	20.00	35.00	20.00	20.00	25.00	20.00
Diclofenac tab 50mg	50.00	40.00	50.00	30.00	30.00	30.00	50.00	50.00	50.00
Doxycycline cap 100mg	33.33	50.00	30.00	100.00	100.00	90.00	75.00	100.00	42.86
Erythromycin tab 250 mg	40.00	50.00	27.00	50.00	50.00	50.00	50.00	66.66	50.00
Ferrous sulphate 200 mg tab	10.00	10.00		10.00	10.00		20.00	35.00	20.00
Folic acid 5 mg tab	10.00	10.00	10.00	10.00	10.00	10.00	10.00	7.50	10.00
Fluconazole cap / tab 150mg	1000.00			1000.00			800.00	500.00	900.00
Furosemide tab 40mg	20.00	20.00	11.00	20.00	25.00	20.00	20.00	25.00	20.00
Gentamycin inj 80mg/ml	200.00	200.00	95.00	400.00	300.00	500.00	355.00	500.00	300.00
Gentamycin eye/ear drops 1%				650.00	425.00				800.00
Glibenclamide tab 5 mg	100.00			100.00	100.00		75.00	100.00	30.00
Griseofulvin tab 500mg	100.00	100.00		100.00	100.00	100.00	100.00	100.00	100.00
Metformin tab 500 mg	37.50	50.00		100.00			100.00	100.00	100.00
Metronidazole tab 250mg	16.66	16.66	10.00	20.00	22.50	20.00	28.33	28.33	25.00
Niverapine/Lamivudine/Stavudine 30									
Niverapine/Lamivudine/Stavudine 40									
Nifedipine retard 20mg	50.00	100.00	40.00	100.00	100.00		100.00	100.00	100.00
Omeprazole caps 20 mg	100.00	100.00		100.00	100.00	100.00	100.00	150.00	100.00
Phenytoin 100 mg	7.00		8.50		225.00		15.00		10.00
Prazequantel 600 mg tab									
Pyrimethamine with sulfadoxine (25+500) mg									
Quinine inj 300mg/ml									
Ranitidine tab 150 mg									
Salbutamol inhaler 0.1 mg(100 mcg/dose									
Oral Rehydration Salt (ORS) 1									