

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH AND SOCIAL WELFARE



Medicine Price Monitor

July 2014

Key Findings: Overall

Medicines were more available in health facilities in the Mission sector ((65%) than in the Private (60%) and Public (60%) 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, private and mission health facilities. Antiretroviral (ARV) medicines Tenofovir/Lamivudine/ Efavirenz were more available in the Public (65%) than in the Mission (30%) and were not available in the private health facilities. The Overall availability in the public sector raised from 34% July 2009 to 60% September 2012 and in July 2014 to 65% for Tenofovir/Lamivudine/ Efavirenz. For Niverapine/Lamivudine/Stavudine 30 were not available in all health facilities in all sectors.

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, 2012)¹. 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 five 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 July 2014 as a follow up of the previous surveys of November 2006, June-July 2007, July 2008, July 2009 and September 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) ² 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 ALU without log the overall availability raised from 35% in September 2012 to 93%, with log, from 45% to 65% and for pediatric from 68% to 88% in July 2014 in the Public sector facilities. This indicates that availability of ALU has been given attention in the distribution in both urban and rural public health facilities with the rural given more priority. The availability of ALU without log in the Private also raised from 35% in September 2012 to 85% and for pediatric from 35% to 80% which is because of the subsidized prices. Similarly, for the Mission sectors, it also raised from 30% in September 2012 to 80% and for pediatric from 33% to 63%. The availability of the ALU with logo was found in all the sectors equally (65%) as opposed to September 2012 where it was more available in the private (63%) than in the public (45%) and Mission (43%) health facilities.

The availability of ARVs had dropped for, Stavudine/Lamivudine/Nevirapine (d4T/3TC/NVP) 30/150/200mg from 60 to 0%, while (d4T/3TC/NVP) 40/150/200mg was substituted with Tenofovir/Lamivudine/ Efavirenz and its availability was 65% in the Public health facilities. The mission health facilities had dropped availability of d4T/3TC/NVP) 30/150/200mg from 33% September 2012 to 3% and for Tenofovir/Lamivudine/ Efavirenz the availability was 30%.

Sulphadoxine/Pyrimethamine (SP) for IPT for pregnant women went down from 60% September 2012 to 48% July 2014 in the public health facilities. In the other two sectors SP availability remained high 90 (80% 2012) in the Private and remain almost the same 55% (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 2012 September and July 2014

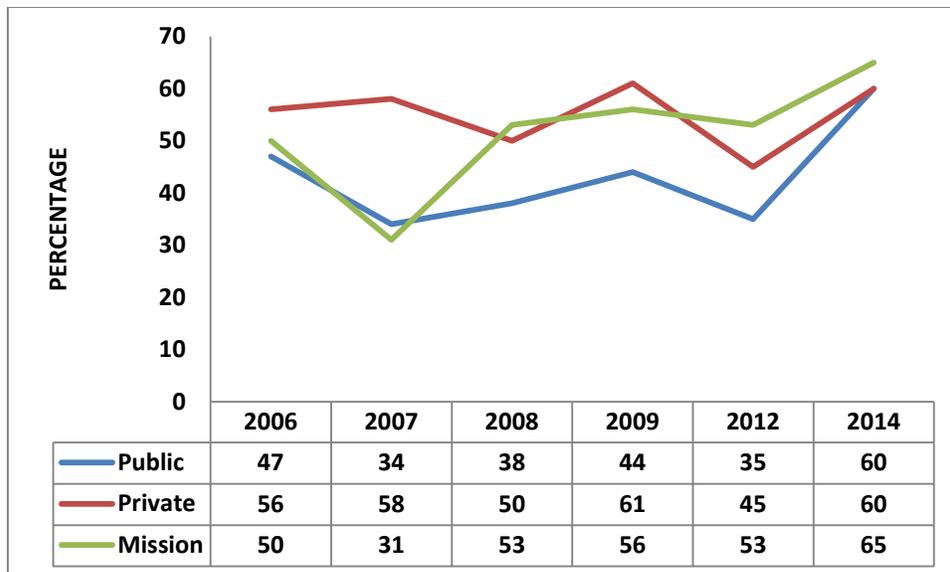
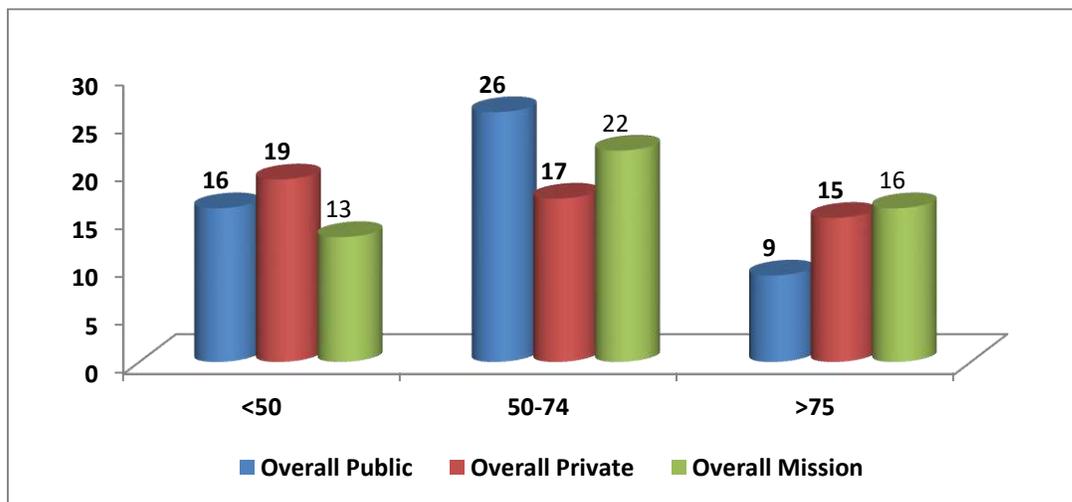


Figure 2 shows the number of medicines found in the health facilities. Of the 51 medicines surveyed, 16 (31.4%), 19 (31.1%) and 13 (25.58%), were available in up to 50% of Public, Private and Mission health facilities. On the other hand 26 (52%), 17 (33.30%) and 22 (43.1%) medicines were available in more than 50% to 75% of the Public, Private and Mission health facilities. Similarly, availability of more than 75%, 9 (17.6%), 15 (29.4%) and 16 (31.48%) were found in public, private and mission health facilities respectively.

Figure 2: Percentage availability of 51 medicines in the three sectors.



3. MEDICINE PRICES

Key Findings: Medicine Prices

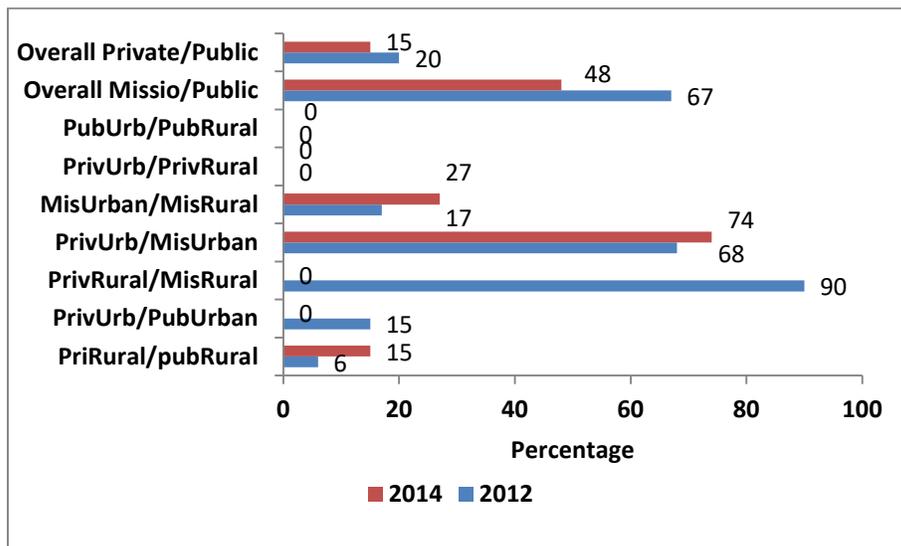
For similar pairs of medicines surveyed, prices in the private and mission sectors were 15% and 48% higher than in the Public health facilities, respectively. This year 2014 is slightly lower than 2012 where prices in private and mission was 20% and 67% respectively. Prices in urban public and private 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 75% higher than Mission rural health facilities.

Prices in the urban Private health facilities were 20% higher than those in urban Public health facilities. Prices in the rural Private health facilities were 20% 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 in the two years, 2012 and 2014.

Figure 3: Median of Medicine Prices – comparisons between and within the sectors for 2012 and 2014



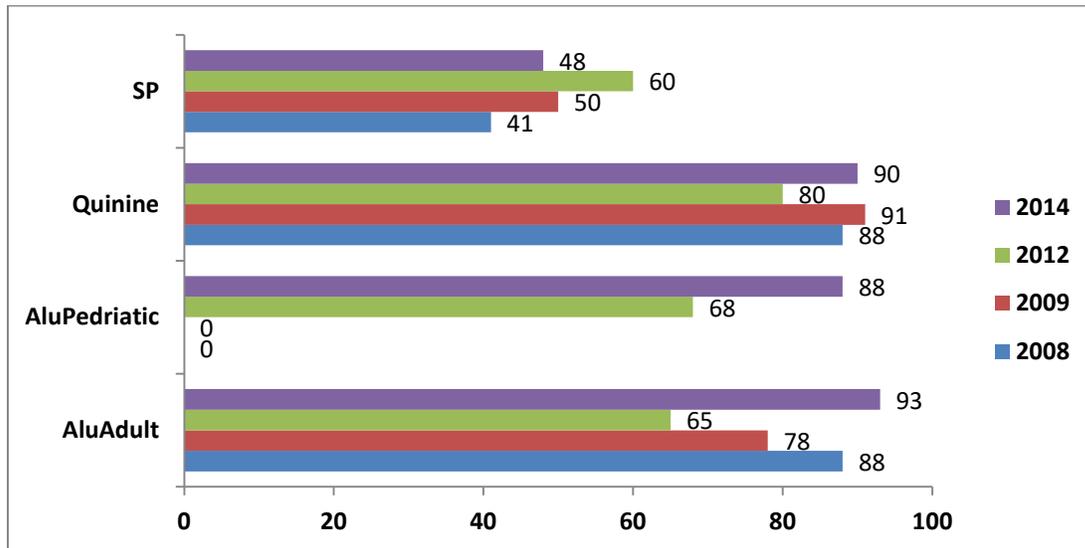
FINDINGS FOR SELECTED MEDICINES

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 2008 and 2009 although slightly lower in 2012 but increased in 2014 (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

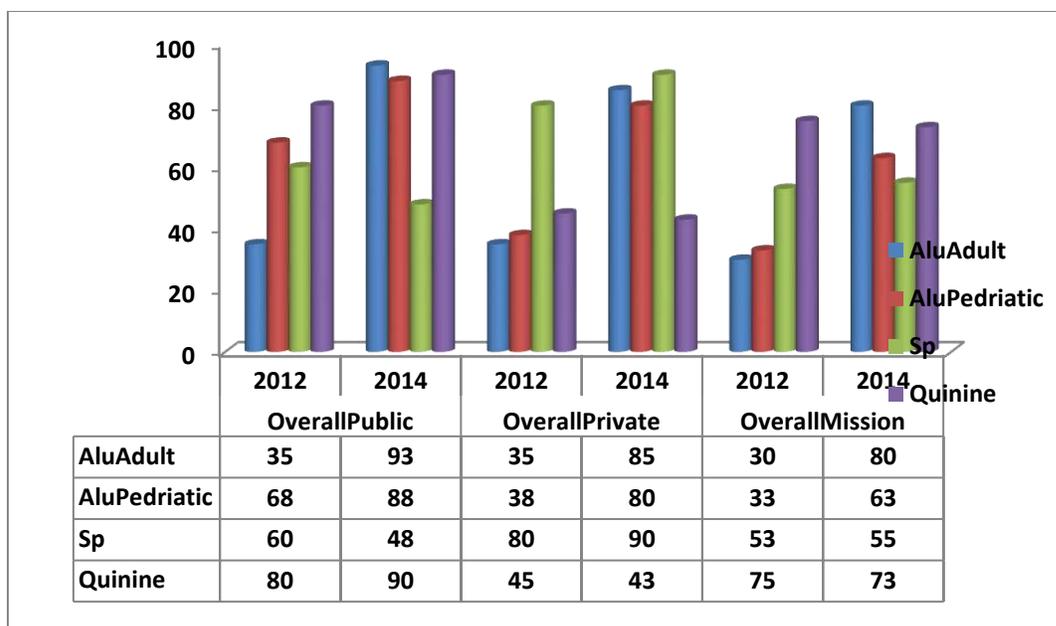
2008,2009 and 2012 but dropped in 2014. There is need to continue to sensitize workers to prescribe SP for pregnant women particularly in Malaria endemic areas. Quinine availability is constantly above 75% which is a good sign for the treatment of the severe malaria.

Figure 4: Trends in percentage availability of selected antimalarials in the public sector September 2012 to July 2014



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 continuo to decrease.

Figure 5: Comparison of percentage availability of antimalarials in the 3 sectors in September 2012 and July 2014

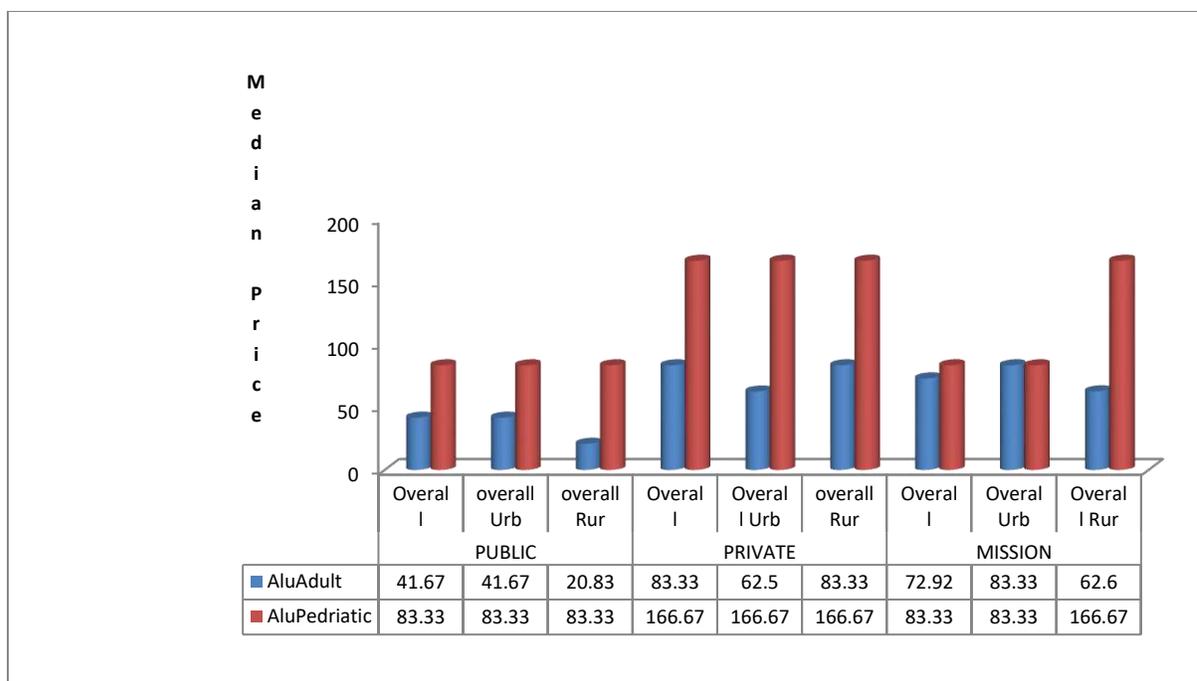


In both the private, ADDO included, and mission urban and rural health facilities surveyed in all five regions ALU and quinine availability were on the average lower than in the public health facilities. The prices were the same in the public sector and both Private Rural and Mission Rural health facilities. 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-adult was lower in the rural areas than in the urban both public and mission as were being monitored by the government more closely than the urban although both were selling the subsidized brands by Global Fund. Considering that the price is per tablet (fixed combination), for 24 tablets (adult) the actual price range from Tsh.500 for rural to 1,000 in urban, and for children 6 tablets, is flat rate of Tsh. 500 in Public. For mission ranges from Tsh. 1,500 rural to 2,000 urban for adult and Tsh 500 Urban to 1000 rural for children; while in Private ranges from Tsh 1,500 urban to 2,000 rural for adult and flat rate of 1,000 for children.

It is shocking to see the price of ALU in Mission HF to be 1.7times (overall) 2.0 times (Urban) and 3.0 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. 1000 and 1000 per 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. ALU was found to be more available in the public than in the other two sector health facilities which was the same in 2012. The overall availability in the 3 sectors are; in the Public 88% while mission and private are 63% and 80% respectively. For ORS-osmolality the availability was the same like 2012 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 increased availability of Zinc dispersible tablets in the public and mission sectors is a sign that the new guidelines for management of diarrhea are now assimilated. This is a good sign because diarrhea is among the top ten children diseases in the country. On the overall, the availability of the paediatric formulations was on a higher side compared to 2012.

Table 1: Availability of paediatric formulations 2012 and 2014 (%)

% availability	PubOverall		PubUrb		PubRur		PrivOverall		PrivUrb		PrivRur		MisOverall		MisUrb		MisRur	
	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014
ALU disp tabs	68	(88)	65	(80)	70	(95)	38	(80)	40	(85)	35	(75)	33	(63)	15	(50)	45	(65)
Co-trimoxazolesusp	30	(73)	30	(50)	30	(55)	75	(68)	85	(65)	65	(70)	58	(65)	60	(75)	55	(45)
ORS Osmol	65	(73)	70	(65)	60	(80)	68	(78)	80	(75)	55	(80)	70	(80)	60	(90)	60	(65)
Paracetamolsry	30	(70)	45	(60)	15	(80)	75	(95)	75	(95)	75	(95)	58	(90)	70	(95)	40	(75)
Zinc Disp. Tabs	40	(60)	45	(40)	35	(60)	70	(90)	85	(95)	55	(85)	40	(63)	40	(65)	40	(55)

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 2012 from Tshs. 5667/= per day to 8833/= The cost of treatment of malaria for adult with the currently first-line antimalarial medicine ALu has dropped slightly from 0.25 days' wages in Private, to 0.23 day's wage because of the subsidized rates. For public sector it went down from 0.24 days' wage to an average of 0.11 day's wage (Pub Overall and PubUrb) while PubRur the price went down to 0.23 day's wage. For the Mission sectors dropped from 0.49 days' wage to 0.2 day's wage. In the Public and the mission sectors ALu is subsidized, so this time the prices in the mission sector dropped, costing a patient less than a day's 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 1.08 days wage in the Public sector, 1.25 days wages in the Private sector, 1.38 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. For 2012 the family had to work for more days to get the required doses and the trend was the same as this of 2014.

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 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 be 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/NVP40mg in stock is due to withdraw 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)	Retail Pharmacies (20)	Teaching Hospitals (2)
Regional Hospitals (5)	Medical store - Duka la	Hospitals (14)
District Hospitals (8)	DawaBaridi (16)	Health centers (14)
Sub-district hospitals (4)	ADDO (6)	Dispensaries (11)
Heath Centers (13)		
Dispensaries (10)		

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References: ¹MOHSW, Survey of the medicine Prices in Tanzania, 2004

²MOHSW, The EMLIT (2007) is the most current national EML

³The Medicine price monitor for Kenya

⁴The Medicine price monitor for Uganda

⁵CSSC/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) l									