

Retail prices of ACTs co-paid by the AMFm and other antimalarial medicines:

Ghana, Kenya, Madagascar, Nigeria, Tanzania and Uganda

Report of price-tracking surveys

Survey Date: November 2011

Investigators: Health Action International (www.haiweb.org and www.haiafrica.org)

These price tracking studies were commissioned by the Global Fund to Fight AIDS Tuberculosis and Malaria (and in Uganda, by the Medicines for Malaria Venture). Health Action International (HAI) Africa, which conducted the study, also analyzed the data and prepared the report. HAI Africa is solely responsible for the accuracy of data in the report.

1.0 Introduction

The AMFm is an innovative financing mechanism to expand access to affordable artemisinin-based combination therapies (ACTs) for malaria through the public and private sectors. Hosted and managed by the Global Fund to Fight AIDS, Tuberculosis and Malaria, the AMFm does three things: (i) it negotiates with manufacturers to reduce prices paid by private sector importers to the same level as prices paid by public sector importers; (ii) it makes a co-payment on behalf of the first-line buyer, thus subsidizing the buyer's purchase of ACTs from the manufacturer and (iii) it supports country-level activities to promote access to and appropriate use of the co-paid ACTs. Phase 1 of the AMFm started operations in mid-2010 and it includes nine pilots in eight countries. The Global Fund has commissioned an independent evaluation of AMFm Phase 1. For more information on the AMFm, including benchmarks for estimating the success of Phase 1, see <http://www.theglobalfund.org/en/amfm/>.

Private sector markets and prices are generally unregulated in most AMFm pilot countries. The Global Fund commissioned a series of price tracking studies in the private sector of several AMFm Phase 1 countries to inform the implementation of the pilots, including adjustments that may be appropriate in each country context.¹ (The Medicines for Malaria Venture commissioned the study in Uganda). Information from these studies is available to implementers who make decisions at country level, technical partners who work with implementers, the Global Fund in its capacity as host and manager of AMFm Phase 1, and other interested parties who might wish to track the progress of work during AMFm Phase 1. These surveys include Ghana, Kenya, Madagascar, Nigeria, Tanzania and Uganda.

The operational aim of AMFm is to influence the market such that retail prices of co-paid ACTs decline and, over time, become price-competitive with those of the market-dominant non-AMFm antimalarials.

The Global Fund does not specify a recommended retail price for AMFm medicines, but countries have the option of doing so if they wish. The following table provides information about suggested retail prices (SRPs) for adult equivalent treatment packs, as specified by countries.

Table 1: Suggested Retail Prices (SRP) and dates of first ACTs deliveries

Country	SRP in local currency or maximum sales price	SRP in US \$	First delivery date of co-paid ACTs in-country
Ghana	No more than 1.50 Cedis	US \$ 1.00	02 August 2010
Kenya	40 Kenyan Shillings	US \$ 0.45	10 August 2010
Madagascar	No SRP		14 October 2010
Nigeria	75 Naira	US \$ 0.50	25 January 2011
Tanzania	1000 Tanzanian Shillings	US \$ 0.65	12 October 2010
Uganda	1200 Ugandan Shillings	US \$ 0.42	23 April 2011

Source: Global Fund Secretariat

This report is the fourth in a series. It includes data collected in all six countries during November 2011.

The methods are presented in Section 2 and the findings are in Section 3. Various annexes include more detail.

¹ The price-tracking surveys are different from the baseline and endpoint surveys for the independent evaluation of AMFm Phase 1, for which the Global Fund has contracted other organizations.

2.0 Methodology

Sampling and data collection are conducted using the standardized methodology co-developed by WHO and HAI minimally adapted for antimalarial medicines and the AMFm price-tracking exercise. While validated for pricing data, the methodology also allows for a level of availability analyses.² Sixty facilities are targeted in each country (five formal and five informal facilities per region, in six regions per country). For this price-tracking project, Uganda has been selected to carry out the price tracking in double the number of facilities (a target total of 120 facilities in six regions: ten formal and ten informal facilities per region).

The final facilities numbers for this round are outlined in Table 2 below.

Table 2: Number of facilities surveyed by country, November 2011 data collection

Country	Total Sites	Formal Sites*	Informal Sites**
Kenya	60	31	29
Ghana	60	30	30
Nigeria	60	30	30
Madagascar	60	30	30
Tanzania	60	30	30
Uganda	116	61	55
ALL COUNTRIES	416	212	204

*Formal sites defined as registered retail pharmacies

**Informal sites defined as unregulated, unlicensed outlets

Data are collected per facility on two lists of antimalarial medicines: the complete list of AMFm ACTs, and a pre-determined list of non-AMFm “other antimalarials” of interest which includes selected non-AMFm-supplied ACTs and selected non-ACTs. For the non-AMFm “other antimalarials”, three price points are collected: originator brand (OB) price, highest price generic (HPG), and lowest price generic (LPG). The two medicines lists are found in the Annexes.

² For more detail on the use (and limitations) of WHO / HAI methodology to analyze medicines availability, please see www.haiweb.org/medicineprices. While not a specific objective of this Price Tracking exercise, some availability analyses are included in the findings section and the annexes.

3.0 Findings

3.1 Availability

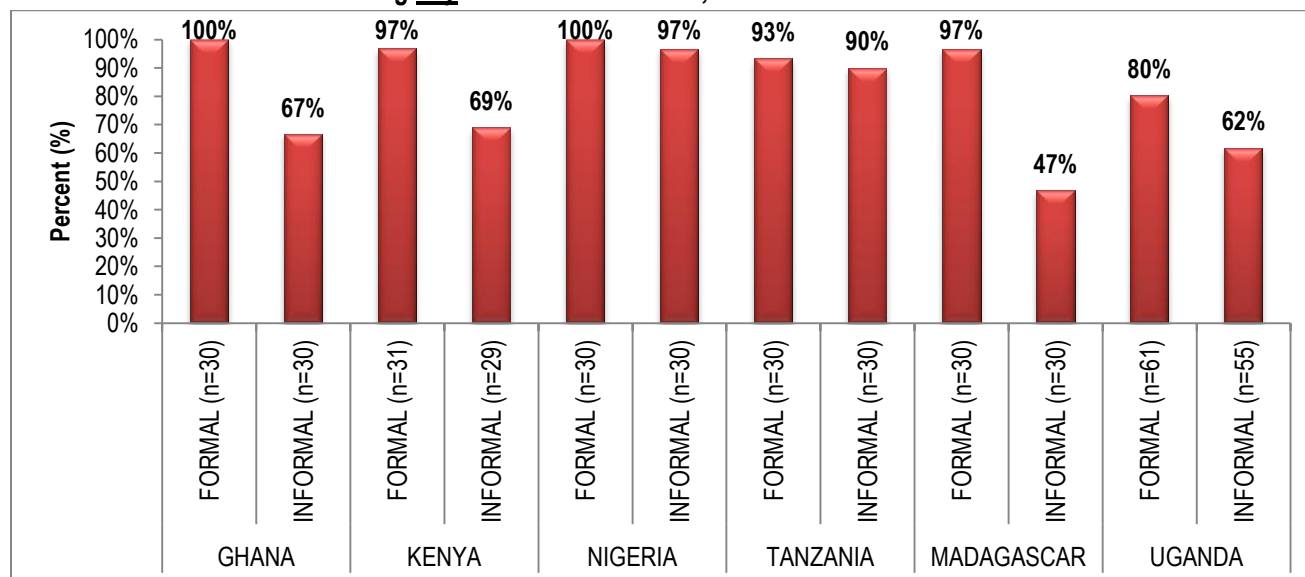
3.1.1. Availability of AMFm medicines

AMFm medicines are found in the private sectors of all six countries, but not in every formal and informal outlet visited. Table 3 and Chart 1 below show the number and percent of outlets visited having any AMFm ACT available on the day of data collection. More AMFm medicines are found in formal outlets than in informal outlets. More detail on the specific AMFm medicines found (including adult vs paediatric formulations) are found in Chart 2 and Annex 1.

Table 3: Facilities having any AMFm ACT available, November 2011 data collection exercise

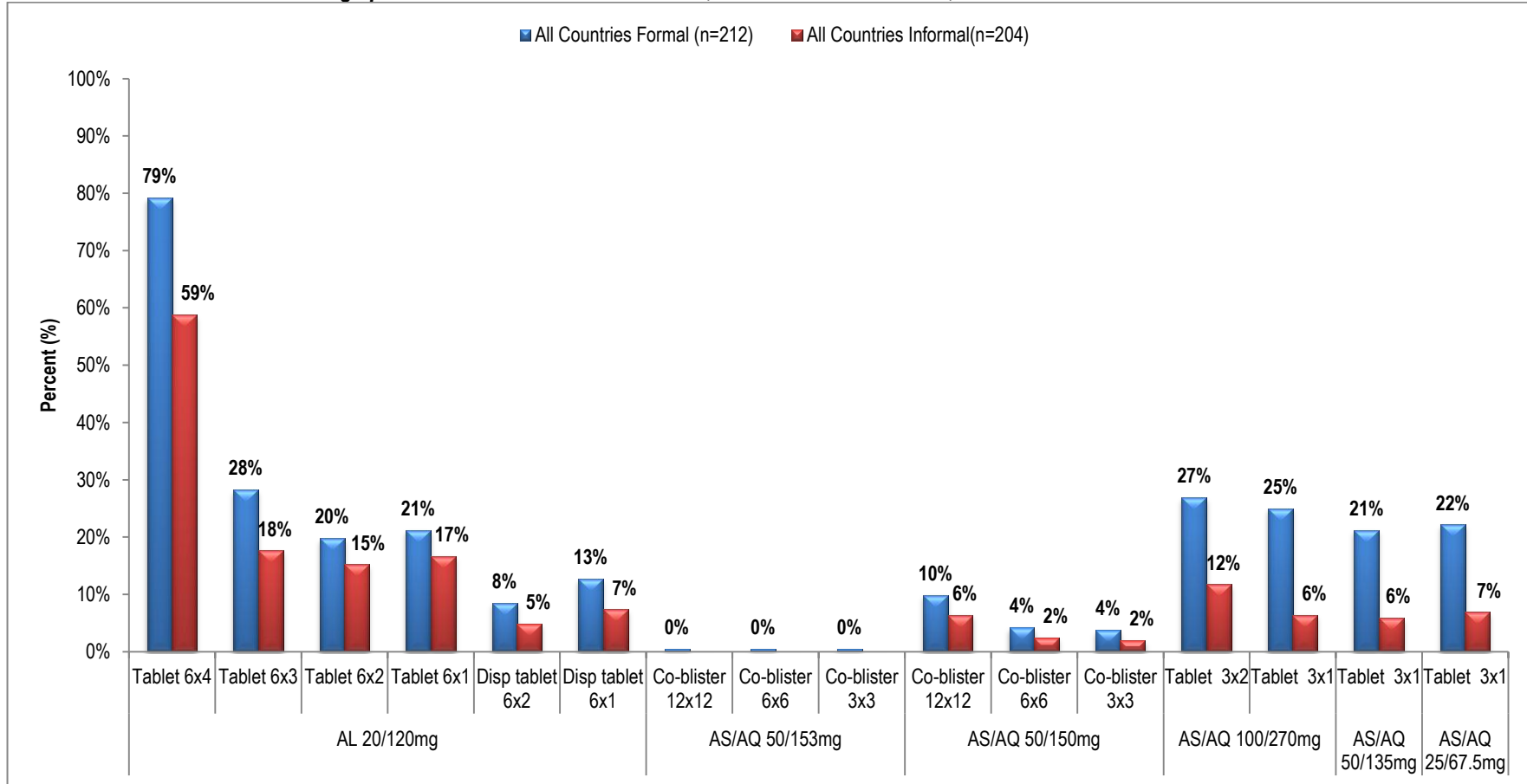
Country	Type	Total Surveyed	#with any AMFm ACTs	% any AMFm ACTs
Ghana	Formal	30	30	100.0%
	Informal	30	20	66.7%
Kenya	Formal	31	30	96.8%
	Informal	29	20	69.0%
Madagascar	Formal	30	29	96.7%
	Informal	30	14	46.7%
Nigeria	Formal	30	30	100.0%
	Informal	30	29	96.7%
Tanzania	Formal	30	28	93.3%
	Informal	30	27	90.0%
Uganda	Formal	61	49	80.3%
	Informal	55	34	61.8%

Chart 1: Percent of facilities having any AMFm ACT available, November 2011 data collection



Among the AMFm medicines found, artemether/lumefantrine (AL) 20/120mg is the most common across all six countries. Chart 2 below illustrates the percent of facilities which have the individual AMFm medicines available on the day of data collection. More detail on availability, including *relative availability* and disaggregation by country and sub-sector, may be found in Annexes 1 and 2.

Chart 2: Percent of facilities having specific AMFm medicines available, across all six countries, November 2011



** AS/AQ 50/153mg was not frequently found across all six countries and the % is rounded off to zero

3.1.2 Availability of the selected non-AMFm medicines

With the exception of artemether tablet 50mg, each of the non-AMFm medicines surveyed is found at least once across all countries. Findings on their relative availability are presented by country in Annex 3. The ten most available and the ten least available medicines (from the relative availability data) are listed below in Table 4. These results are generated based on the frequency each non-AMFm medicine was found to be available at a facility, regardless of product type (Originator Brand, Lowest Price Generic, or Highest Price Generic). This information must be taken in context of the specific (pre-selected) list of non-AMFm antimalarials surveyed: various off-list antimalarials and a variety of strengths and formulations may also be found during data collection but are not included in the analysis.

Table 4: Ten most and ten least available non-AMFm antimalarials surveyed, across countries

Ten most available	Ten least available
<ul style="list-style-type: none"> ▪ Sulphadoxine / pyrimethamine tablet 500/25mg ▪ Doxycycline tablet / capsule 100mg ▪ Artemether / lumefantrine tablet 20/120mg ▪ Dihydroartemisinin / piperazine tablet 40/320mg ▪ Sulphamethoxypyrazine / pyrimethamine tablet 500/25mg ▪ Quinine tablet 300mg (sulphate or bisulfate) ▪ Amodiaquine suspension 50mg/5mL ▪ Sulphadoxine / pyrimethamine suspension 12.5mg/5mL ▪ Quinine suspension 50mg/5mL ▪ Amodiaquine tablet 200mg (as HCl) 	<ul style="list-style-type: none"> ▪ Mefloquine tablet 250mg (as HCl) ▪ Sulphamethoxypyrazine / pyrimethamine suspension 100mg/5mL ▪ Quinine drops 200mg/mL ▪ Artesunate / mefloquine tablet 25/55mg ▪ Atovaquone / proguanil adult tablet 250/100mg ▪ Chloroquine tablet 150mg ▪ Artesunate / mefloquine tablet 100/220mg ▪ Artesunate suppository 50mg ▪ Sulphadoxine / pyrimethamine drops ▪ Artemether tablet 50mg (<i>not found</i>)

3.2 Medicine prices

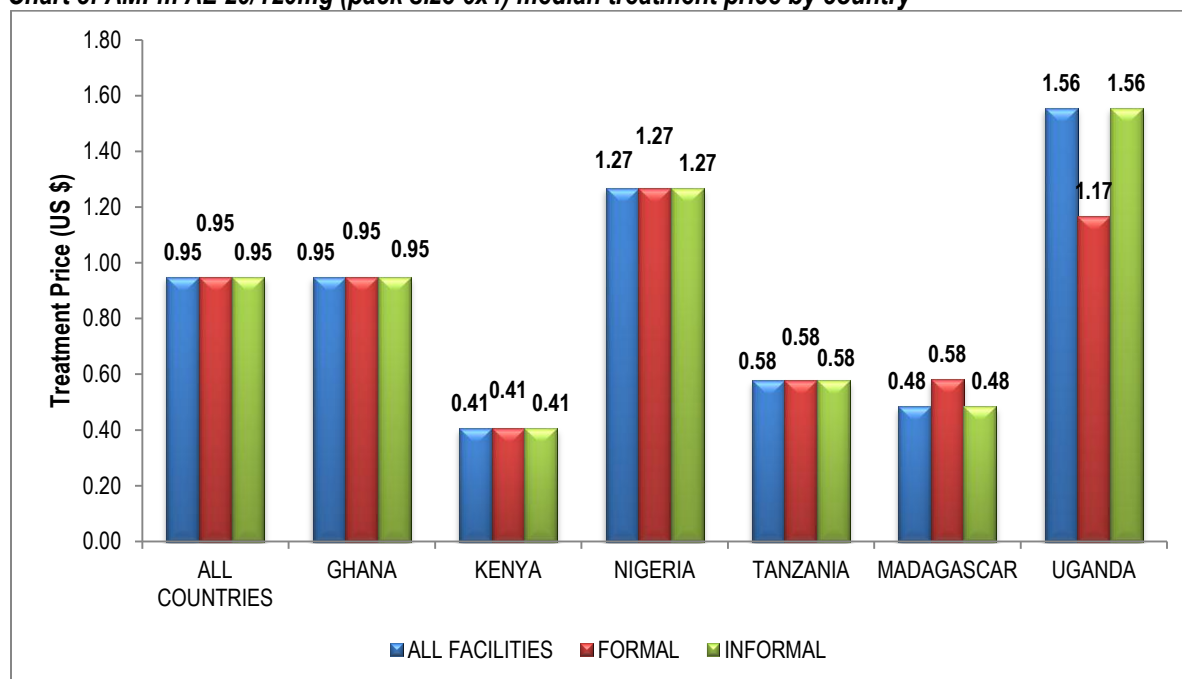
Medicine prices are reported as medians, means, maximums, minimums and quartiles. Selected analyses are presented below for some of the most commonly available medicines, as well as comparisons between AMFm prices and non-AMFm prices. All prices are reported in USD, using exchange rates³ from the first day of data collection.

3.2.1 ACTs prices: AMFm and non-AMFm

3.2.1.1 AL 20/120mg

As shown in Chart 3 below, Kenya and Madagascar achieve the lowest AMFm adult AL treatment price, with medians of \$0.41 and \$0.48 for an adult AL treatment (6x4 tablets), across the private sector facilities surveyed. The highest median prices for AMFm AL are found in Nigeria (\$1.27) and Uganda (\$1.56).

³ www.oanda.com

Chart 3: AMFm AL 20/120mg (pack size 6x4) median treatment price by country

The relative consistency of the median prices reflect an apparently increasing uniformity of AMFm pricing across sectors. Table 5 (and Chart 4 specifically for Kenya) further illustrate the range of AMFm AL 20/120mg prices.

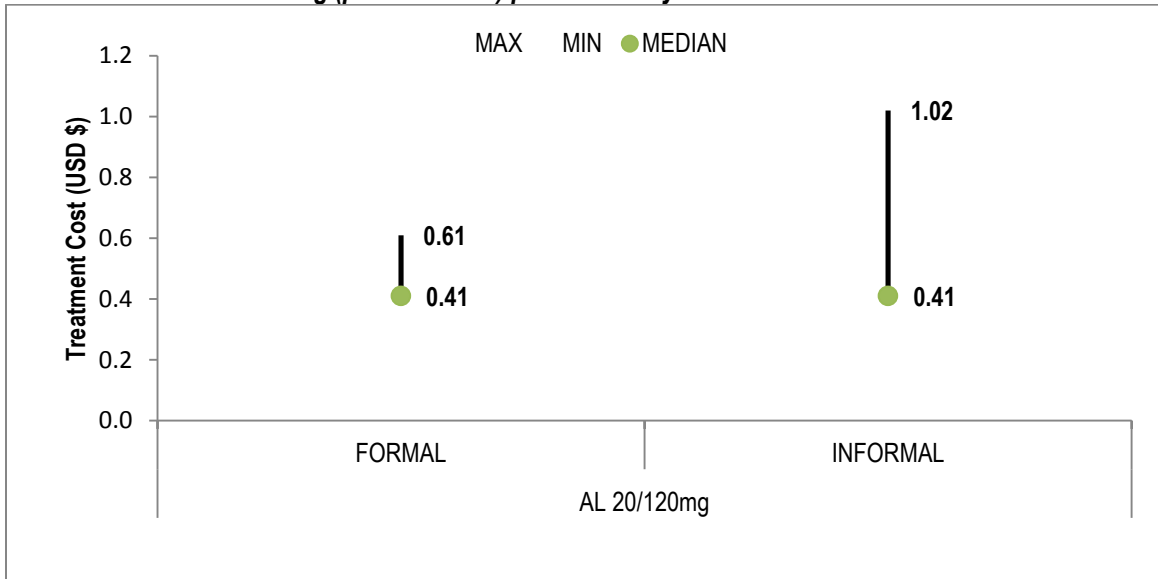
Table 5: Treatment price data by country for AMFm AL 20/120 (tablet, pack size 6x4) across all manufacturers⁴

COUNTRY	TYPE	N*	MEDIAN	MEAN	MIN	MAX	LQ	UQ	IQR
Ghana	Formal	56	0.95	1.01	0.95	2.53	0.95	0.95	0.00
	Informal	18	0.95	1.00	0.95	1.27	0.95	0.95	0.00
Kenya	Formal	56	0.41	0.43	0.41	0.61	0.41	0.41	0.00
	Informal	35	0.41	0.45	0.41	1.02	0.41	0.41	0.00
Nigeria	Formal	61	1.27	1.49	0.63	3.17	0.95	1.90	0.95
	Informal	57	1.27	1.52	0.63	2.54	1.27	1.90	0.63
Tanzania	Formal	38	0.58	0.61	0.41	0.87	0.58	0.58	0.00
	Informal	30	0.58	0.67	0.58	0.87	0.58	0.87	0.29
Madagascar	Formal	7	0.58	0.57	0.48	0.73	0.48	0.61	0.12
	Informal	4	0.48	0.55	0.48	0.73	0.48	0.55	0.06
Uganda	Formal	68	1.17	1.74	0.29	7.78	0.78	1.95	1.17
	Informal	31	1.56	2.05	0.33	4.67	1.56	2.33	0.78

*N is the number of price data points (based on availability, since price data is only documented for those medicines available on the day of data collection)

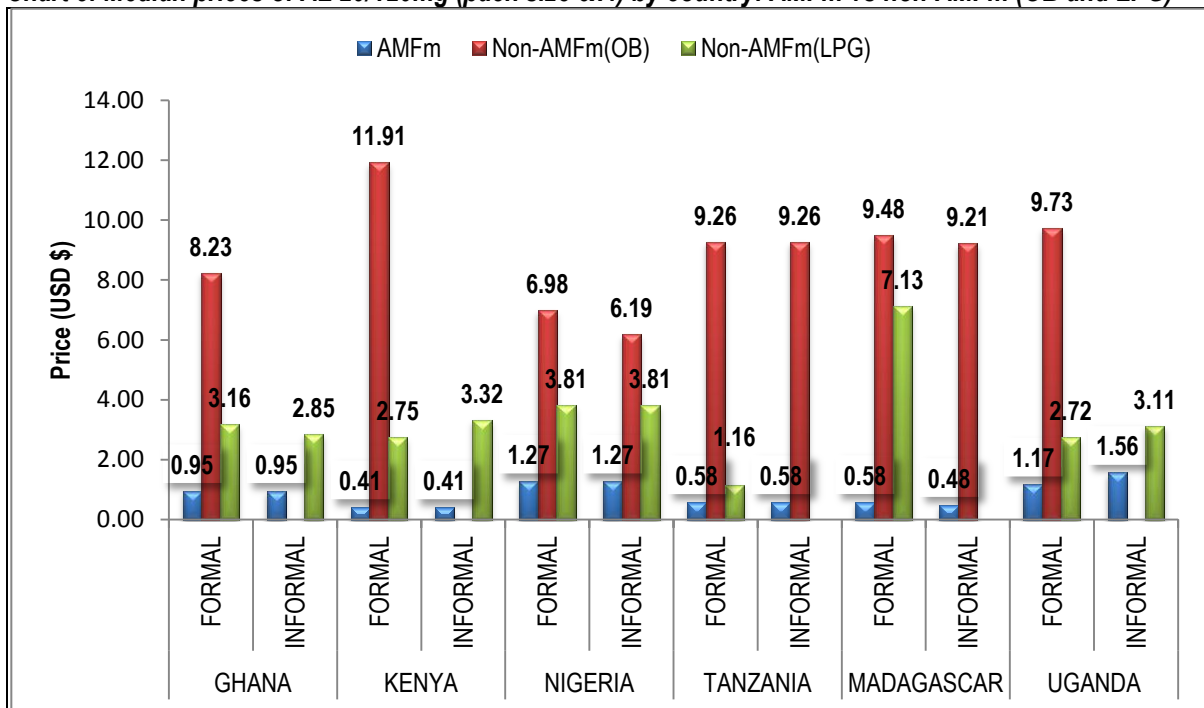
⁴ Ajanta, Cipla, Ipca, Novartis

Chart 4: AMFm AL 20/120mg (pack size 6x4) prices in Kenya



Prices for non-AMFm AL 20/120mg (pack size 6x4, both OB and LPG) are higher than AMFm prices across all countries and all sub-sectors. These prices are compared and illustrated in Chart 5 below. Price details are found in Annex 4.

Chart 5: Median prices of AL 20/120mg (pack size 6x4) by country: AMFm vs non-AMFm (OB and LPG)



Median Price Ratios (MPRs) reveal that non-AMFm AL 20/120mg adult treatments are from 2 to 12 times the AMFm price for the LPG and from 5 to 29 times the AMFm price for the OB. MPRs by country and sub-sector are presented in Table 6 below.

Table 6: Median Price Ratios for AL 20/120mg: AMFm and non-AMFm across countries

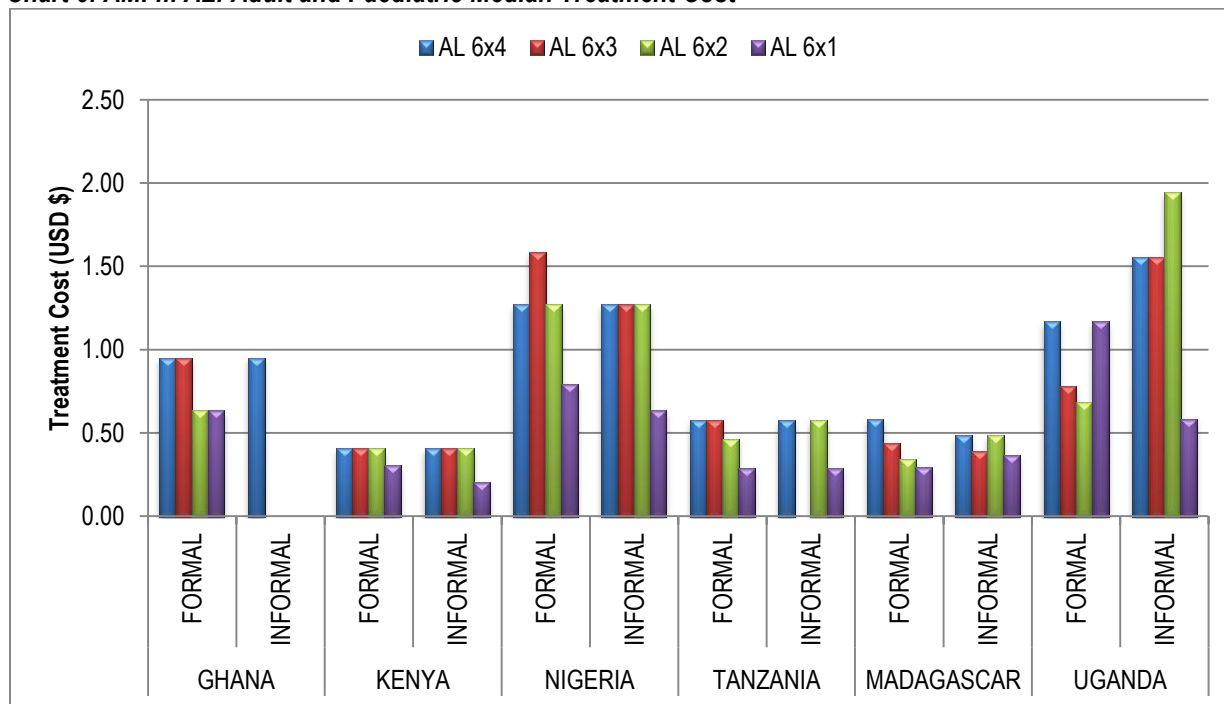
Country	Facility Type	MPR (AMFm: non-AMFm-LPG)	MPR (AMFm: non-AMFm-OB)
Ghana	Formal	1:3	1:9
	Informal	1:3	-
Kenya	Formal	1:7	1:29
	Informal	1:8	-
Nigeria	Formal	1:3	1:6
	Informal	1:3	1:5
Tanzania	Formal	1:2	1:16
	Informal	-	1:16
Madagascar	Formal	1:12	1:16
	Informal	-	1:19
Uganda	Formal	1:2	1:8
	Informal	1:2	-

When comparing AMFm AL adult to AMFm AL paediatric treatments, prices generally decrease from the adult treatment (6x4) to the lowest paediatric weight band treatment (6x1). The relatively lower availability of the paediatric strengths is again noted, as there are thus fewer price points to analyze relative to the adult strengths. Uganda's price range is especially diverse, although with its low availability of paediatric strengths, a meaningful analysis is not possible. These findings are shown in Table 7 and Chart 6 below.

Table 7: Median Price for AMFm AL 20/120mg: different pack sizes (treatment costs) across countries

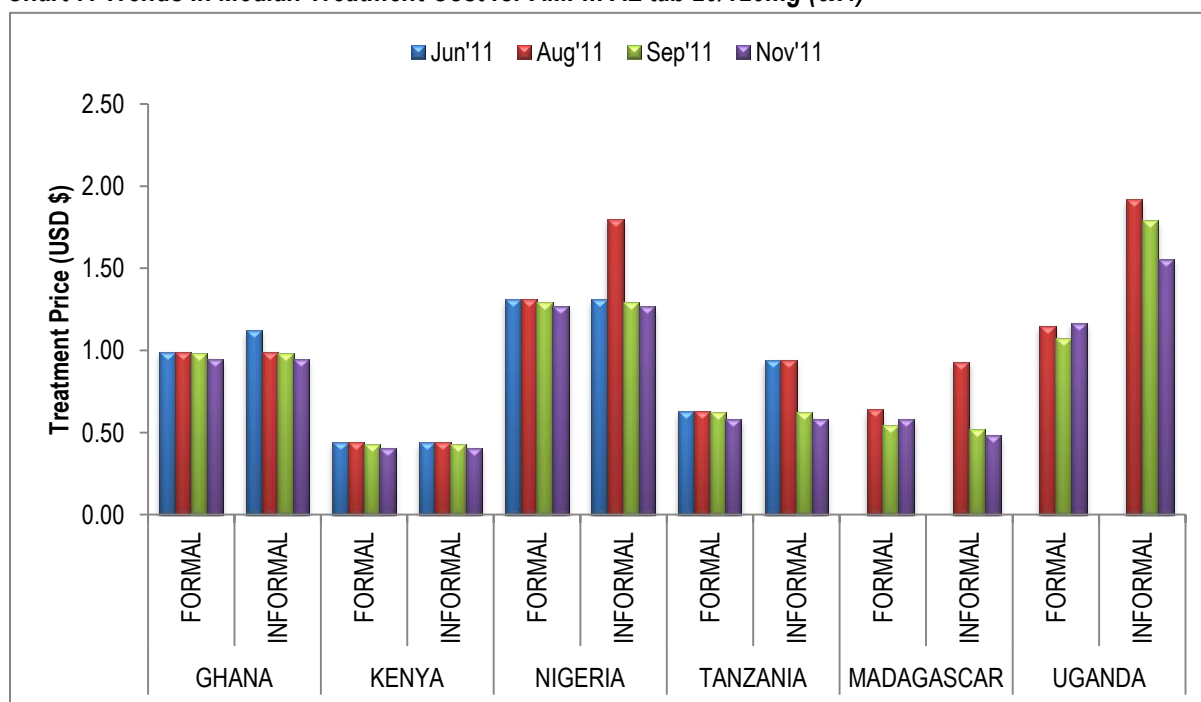
Country	Facility Type	AL 6x4 (adult)	AL 6x3	AL 6x2 (paediatric)	AL 6x1 (paediatric)
Ghana	Formal	0.95	0.95	0.63	0.63
	Informal	0.95	-	-	-
Kenya	Formal	0.41	0.41	0.41	0.31
	Informal	0.41	0.41	0.41	0.20
Nigeria	Formal	1.27	1.59	1.27	0.79
	Informal	1.27	1.27	1.27	0.63
Tanzania	Formal	0.58	0.58	0.46	0.29
	Informal	0.58	-	0.58	0.29
Madagascar	Formal	0.58	0.44	0.34	0.29
	Informal	0.48	0.39	0.48	0.36
Uganda	Formal	1.17	0.78	0.68	1.17
	Informal	1.56	1.56	1.95	0.58

Chart 6: AMFm AL: Adult and Paediatric Median Treatment Cost



Price trends of AMFm AL 20/120mg (pack size 6x4) are presented over three data sets (Madagascar, Uganda) or four data sets (Ghana, Kenya, Nigeria, Tanzania). Pricing is relatively steady over time, especially in the formal sectors of all six countries. These trends are illustrated in Chart 7 below.

Chart 7: Trends in Median Treatment Cost for AMFm AL tab 20/120mg (6x4)



3.2.1.2 AMFm Artesunate / amodiaquine (AS/AQ FDC 100/270mg)

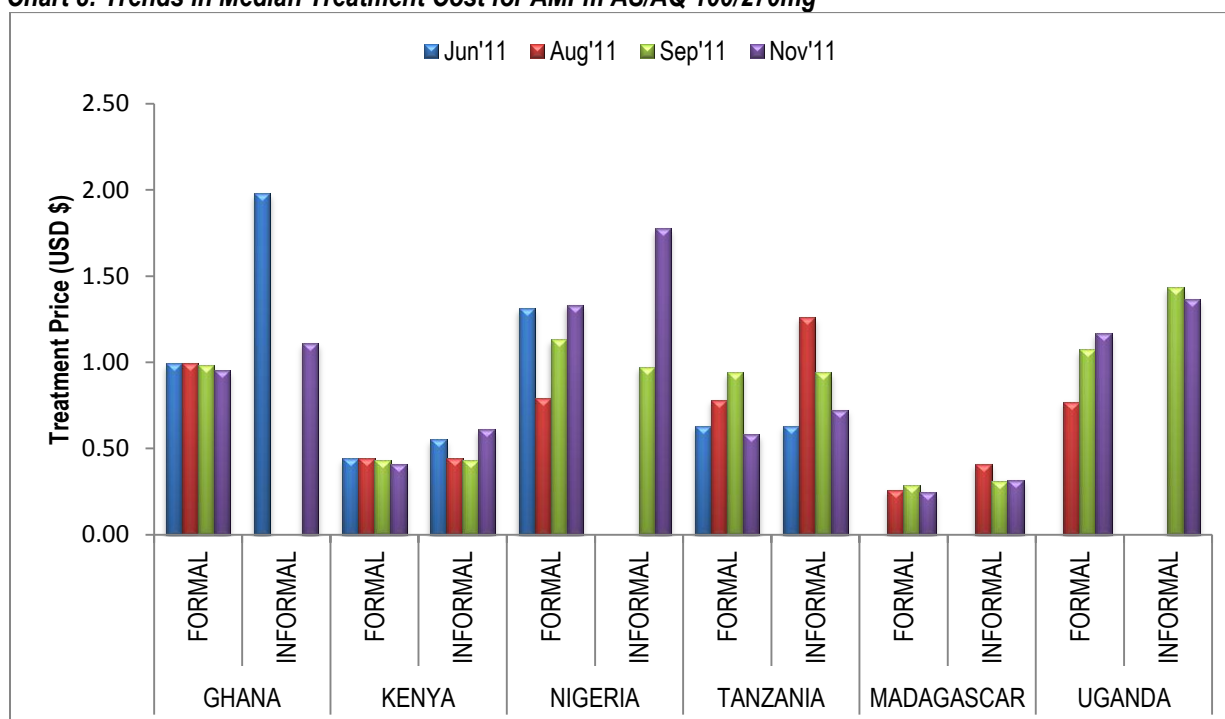
Price data for AMFm AS/AQ FDC 100/270mg (adult treatment pack size 3x2) is presented in Table 8 below. Adult treatment prices are lowest in Madagascar, where it is also found most commonly among the six countries.

Table 8: Treatment price data for AMFm AS/AQ FDC 100/270mg tablet (pack size 3x2)

COUNTRY	TYPE	N	MEDIAN	MEAN	MIN	MAX	Lower Quartile	Upper Quartile	IQR
Ghana	Formal	3	0.95	0.95	0.95	0.95	0.95	0.95	0.00
	Informal	2	1.11	1.11	0.95	1.27	1.03	1.19	0.16
Kenya	Formal	13	0.41	0.44	0.41	0.51	0.41	0.51	0.10
	Informal	5	0.61	0.69	0.41	1.02	0.41	1.02	0.61
Nigeria	Formal	3	1.33	1.61	1.27	2.22	1.30	1.78	0.48
	Informal	1	1.78	1.78	1.78	1.78	1.78	1.78	0.00
Tanzania	Formal	5	0.58	0.79	0.46	1.16	0.58	1.16	0.58
	Informal	2	0.72	0.72	0.58	0.87	0.65	0.80	0.14
Madagascar	Formal	23	0.24	0.32	0.24	0.48	0.24	0.44	0.19
	Informal	10	0.32	0.35	0.03	0.48	0.29	0.48	0.19
Uganda	Formal	10	1.17	1.52	0.23	2.72	1.17	2.24	1.07
	Informal	4	1.36	2.19	0.18	5.84	0.92	2.63	1.71

Price trends for AMFm AS/AQ 100/270mg are presented over time in Chart 8 below. Pricing is the most consistent over time in the formal sectors of Ghana, Kenya and Madagascar.

Chart 8: Trends in Median Treatment Cost for AMFm AS/AQ 100/270mg



3.2.2 Prices of AMFm and non-AMFm (ACTs and non-ACTs) medicines by treatment course: paediatric treatments

Paediatric doses are found less frequently than adult doses. Where found, the paediatric treatment prices for the smallest AMFm medicines' pack sizes are noted. With relatively few data points and a variety of price ranges across countries, a meaningful conclusion or comparison is difficult to make. These findings are illustrated below in Tables 9 and 10.

Table 9: Prices of various paediatric weight band treatments (AMFm medicines) in USD\$

Country	Facility type	AL tab 6x1	AL tab 6x2	AL dispersible tab 6x1	AL dispersible tab 6x2	AS+AQ 50+150mg (or 50+153) 3+3	AS/AQ 50/135mg 3x1	AS/AQ 25/67.5mg 3x1
Ghana	Formal	0.63	0.63	1.27	-	1.27	0.63	0.57
	Informal	-	-	-	-	1.90	0.95	-
Kenya	Formal	0.31	0.41	0.41	0.41	-	0.41	0.46
	Informal	0.20	0.41	-	0.41	-	0.41	-
Nigeria	Formal	0.79	1.27	0.73	1.27	1.90	0.76	0.60
	Informal	0.63	1.27	0.89	0.44	1.27	-	0.51
Tanzania	Formal	0.29	0.46	0.29	0.46	-	0.41	0.35
	Informal	0.29	0.58	0.43	0.38	-	0.43	0.46
Madagascar	Formal	0.29	0.34	-	-	-	0.19	0.19
	Informal	0.36	0.48	-	-	-	0.19	0.24
Uganda	Formal	1.17	0.68	0.68	1.17	-	0.88	0.78
	Informal	0.58	1.95	1.36	-	-	0.58	-

Paediatric treatment prices of AMFm medicines are generally less than non-AMFm AL equivalents, and are comparable to prices of selected non-AMFm medicines including SP tablet and chloroquine suspension. This is illustrated in Table 10 below.

Table 10: Cost comparisons for various paediatric treatments (non-AMFm medicines) - 12kg child

Country	Type	SP tab 500/25mg (OB)	SP tab 500/25mg (LPG)	Chloroquine Susp 50mg/5mL (LPG) 30mL	non-AMFm AL 6x2 (OB)	non-AMFm AL 6x2 (LPG)
Ghana	Formal	1.55	0.32	-	4.11	1.58
	Informal		0.32	-		1.42
Kenya	Formal	1.22	0.31	0.31	5.96	1.37
	Informal	1.22	0.41	-		1.66
Nigeria	Formal	1.14	0.44	0.25	3.49	1.90
	Informal	1.02	0.48	0.25	3.09	1.90
Tanzania	Formal	1.45	0.58	-	4.63	0.58
	Informal	1.45	0.58	-	4.63	
Madagascar	Formal	2.52	0.34	-	4.74	3.56
	Informal	2.28	0.35	-	4.61	
Uganda	Formal		0.39	-	4.86	1.36
	Informal		0.58	-		1.56

3.2.3 Price comparisons between AMFm and non-AMFm (ACTs and non-ACTs) medicines by treatment course: adult treatments

AMFm adult treatments are compared to a variety of generally dominant non-AMFm antimalarial treatment costs (both OB and LPG) in each of the six countries in Charts 10 – 15 below. Such analyses are of interest as per the “benchmarks for success” proposed to be AMFm prices of <300% (year 1) or <150% (year 2) of the price of the dominant non-AMFm antimalarial on the market.⁵

Chart 9: Ghana median treatment prices (adult)

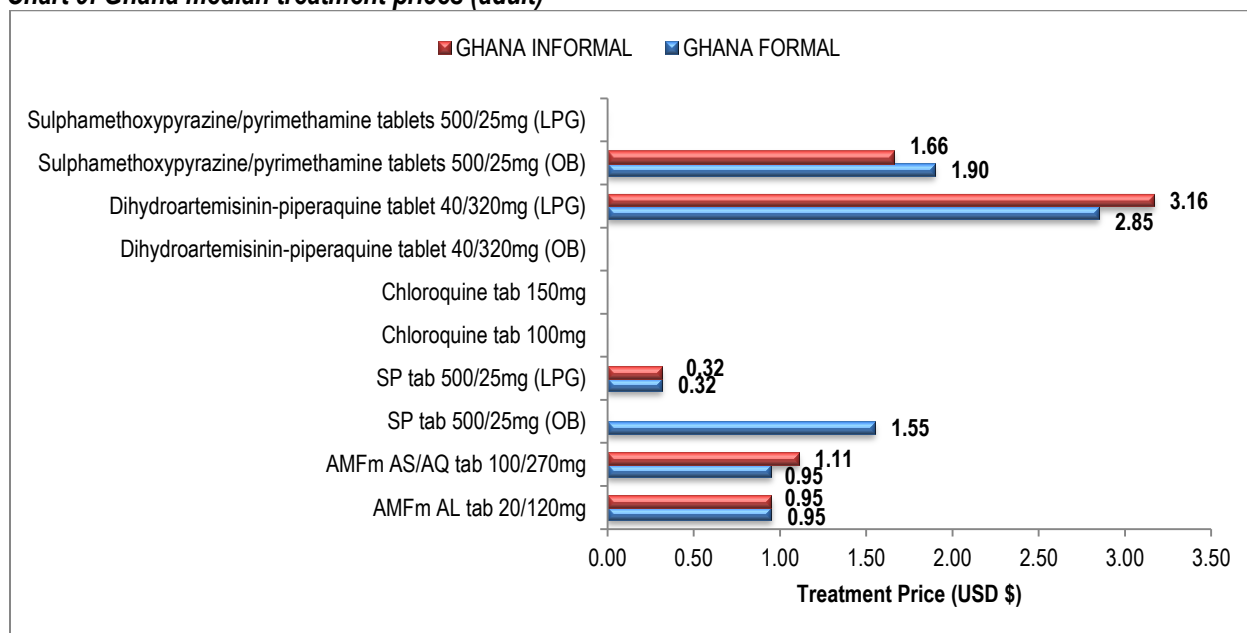
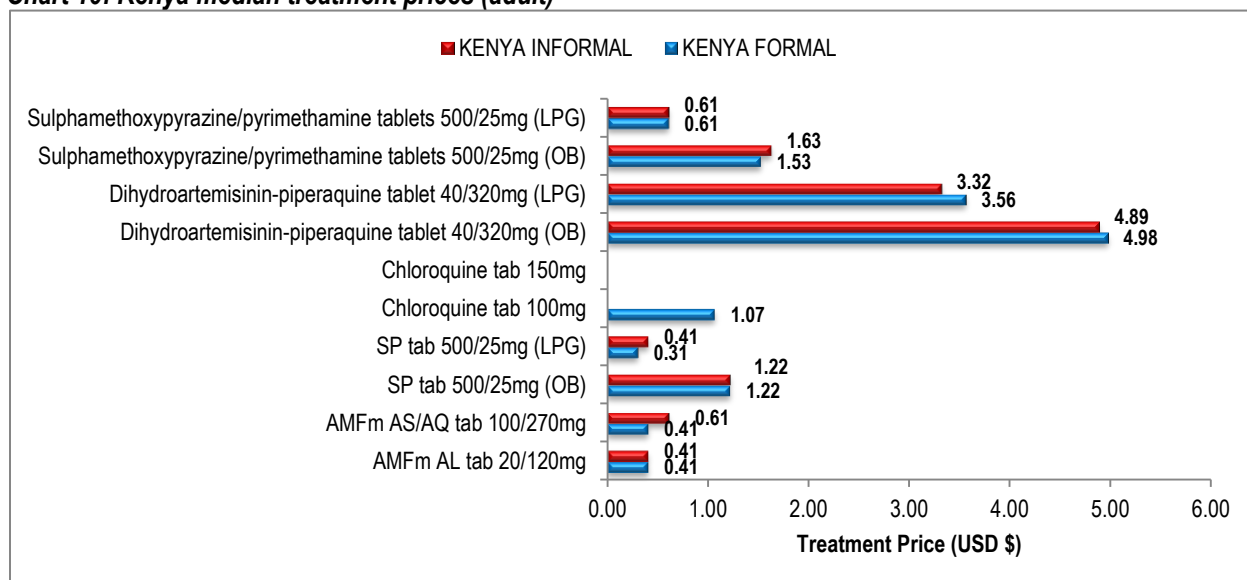


Chart 10: Kenya median treatment prices (adult)



⁵ http://www.theglobalfund.org/documents/amfm/E2PI_EstimatingBenchmarksInAMFm_Report_en/

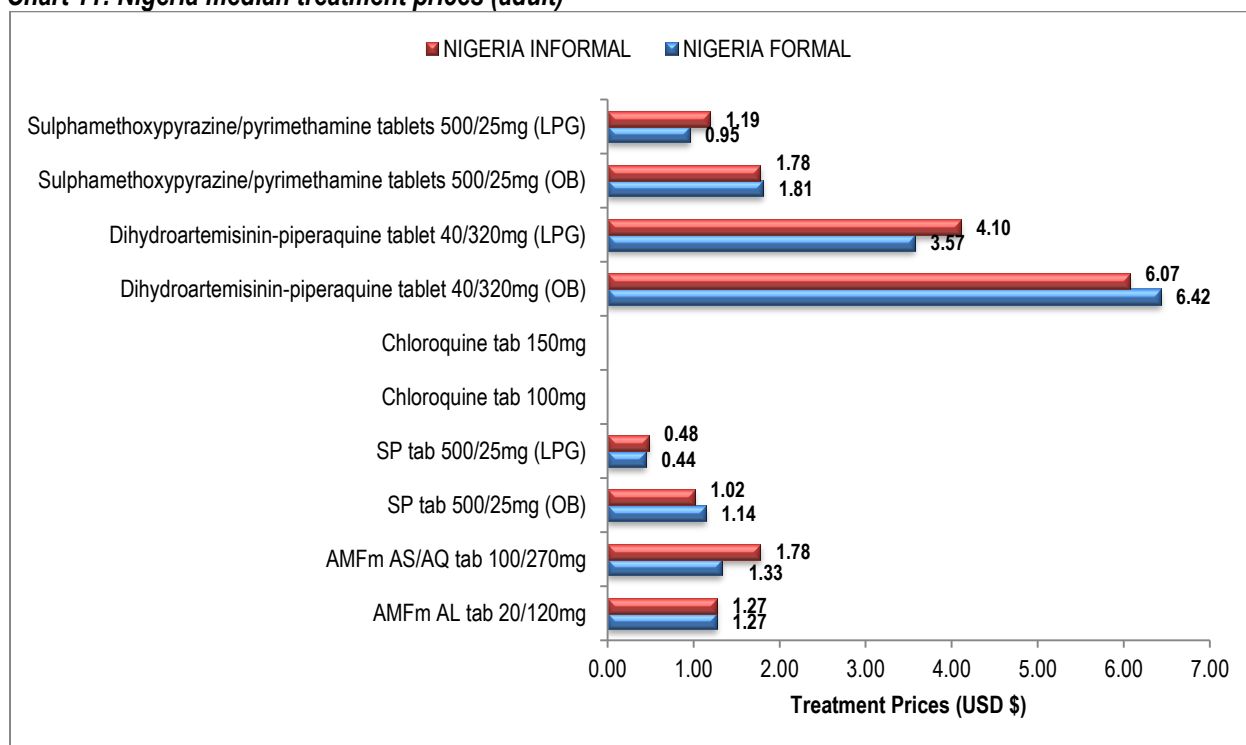
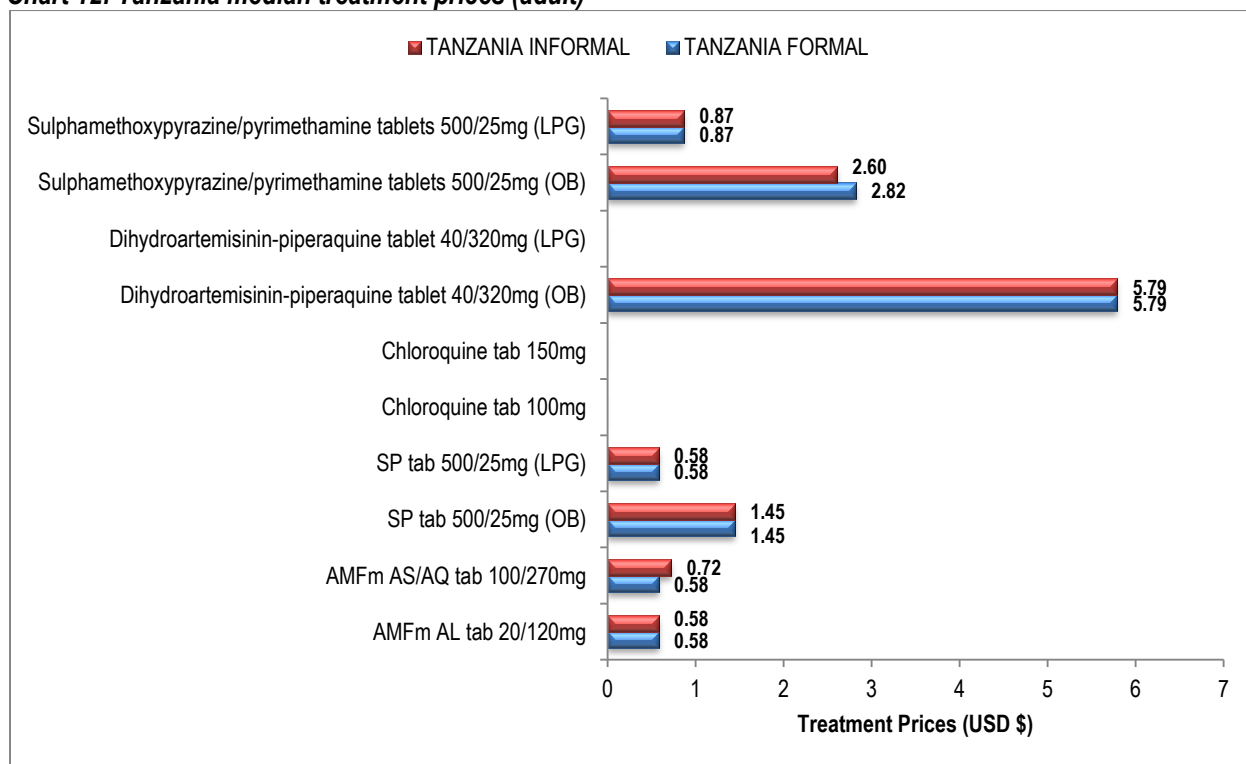
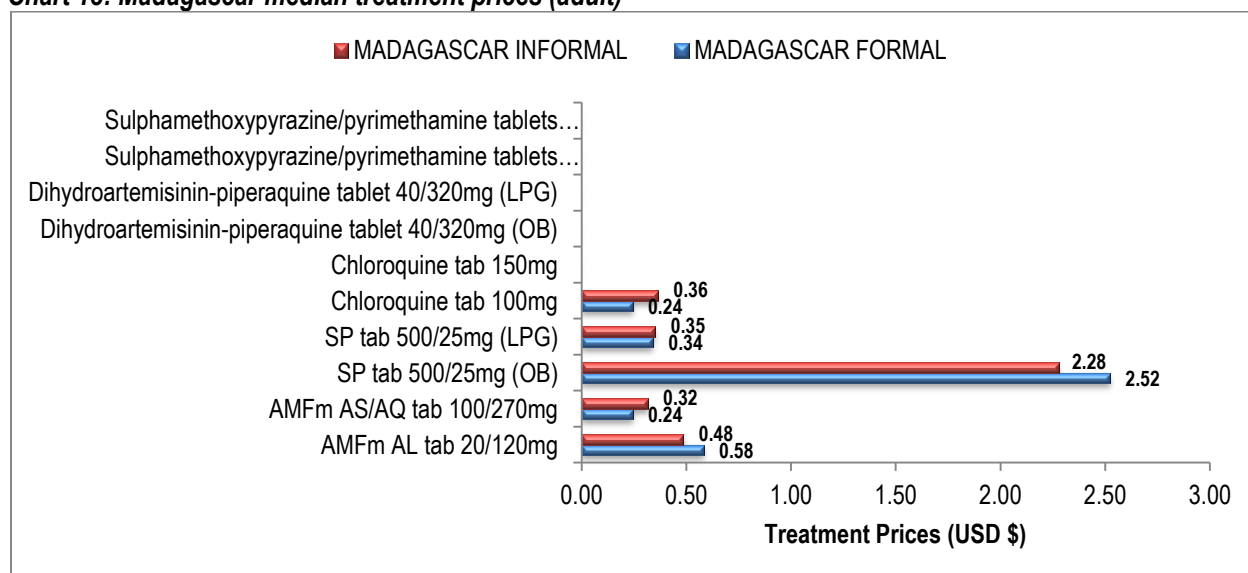
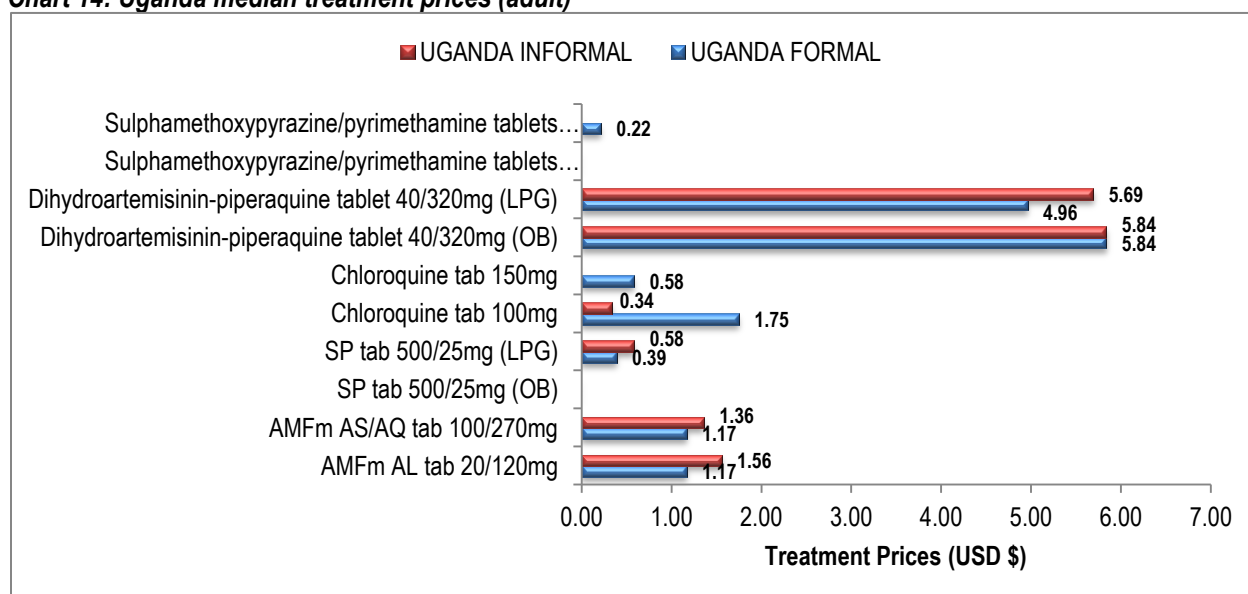
Chart 11: Nigeria median treatment prices (adult)**Chart 12: Tanzania median treatment prices (adult)**

Chart 13: Madagascar median treatment prices (adult)**Chart 14: Uganda median treatment prices (adult)**

4.0 For Discussion

Consistent with the objectives of the on-going price-tracking studies, implementers from each country will continue to examine and interpret the data in their specific contexts, with attention to factors including but not limited to: the duration of implementation; the supply of ACTs compared to estimated demand; the duration, extent and intensity of public information campaigns; the pre-AMFm prices of quality-assured ACTs; the reach of private sector supply chains for ACTs; and the nationally recommended retail price, if any, in the country.

5.0 Annexes

Annex 1: Relative availability of AMFm medicines found by country The N below is the total frequency of different types of medicines found in the facility type. The percentages reported are relative to each other among all the medicines found in the facility and thus add up to 100% (percentages are rounded, thus totals may not exactly be 100%).

AMFm Medicine	Pack Size / Dose	ALL COUNTRIES		GHANA		KENYA		NIGERIA		TANZANIA		MADAGASCAR		UGANDA	
		FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL
		N=769	N=421	N=109	N=35	N=150	N=53	N=172	N=159	N=108	N=86	N=108	N=38	N=122	N=50
Artemether/Lumefantrine 20/120mg	Tablet 6x4	37%	41%	51%	51%	37%	66%	35%	36%	35%	34%	6%	11%	56%	61%
Artemether/Lumefantrine 20/120mg	Tablet 6x3	10%	12%	8%	0%	7%	4%	15%	20%	17%	15%	6%	3%	6%	4%
Artemether/Lumefantrine 20/120mg	Tablet 6x2	7%	9%	2%	0%	9%	9%	13%	13%	8%	9%	4%	8%	5%	8%
Artemether/Lumefantrine 20/120mg	Tablet 6x1	8%	11%	1%	0%	9%	2%	16%	15%	7%	17%	3%	5%	4%	6%
Artemether/Lumefantrine 20/120mg	Disp tablet 6x2	2%	2%	0%	0%	5%	2%	2%	3%	5%	5%	0%	0%	1%	0%
Artemether/Lumefantrine 20/120mg	Disp tablet 6x1	4%	4%	1%	0%	7%	0%	2%	4%	7%	7%	0%	0%	3%	4%
Artesunate+Amodiaquine 50+153mg	Co-blisters 12+12	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+153mg	Co-blisters 6+6	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+153mg	Co-blisters 3+3	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+150mg	Co-blisters 12+12	3%	3%	9%	17%	3%	6%	3%	3%	2%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+150mg	Co-blisters 6+6	1%	1%	5%	9%	0%	0%	2%	1%	0%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+150mg	Co-blisters 3+3	1%	1%	5%	3%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%
Artesunate/Amodiaquine 100/270mg	Tablet 3x2	7%	6%	3%	6%	9%	9%	2%	1%	5%	2%	21%	26%	8%	8%
Artesunate/Amodiaquine 100/270mg	Tablet 3x1	7%	3%	9%	6%	4%	0%	1%	0%	5%	3%	21%	16%	6%	4%
Artesunate/Amodiaquine 50/135mg	Tablet 3x1	6%	3%	5%	9%	5%	2%	1%	0%	5%	2%	16%	13%	7%	2%
Artesunate/Amodiaquine 25/67.5mg	Tablet 3x1	6%	3%	2%	0%	4%	0%	2%	2%	4%	3%	23%	18%	5%	2%

Annex 2: Absolute availability of AMFm medicines found by country (as percentage of facilities which had the AMFm antimalarial available, regardless of manufacturer) This is calculated as percentages of facilities which had the AMFm antimalarial available: regardless of, and across all, manufacturers. For example, if a facility had AL 20/120mg available from four different manufacturers (Ajanta, Cipla, Ipca, Novartis) or just one manufacturer, they would both be captured as facilities with AMFm AL 20/120 as “available.”

AMFm Medicine	Pack Size / Dose	ALL COUNTRIES		GHANA		KENYA		NIGERIA		TANZANIA		MADAGASCAR		UGANDA	
		FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL	FORMAL	INFORMAL
		N=212	N=204	N=30	N=30	N=31	N=29	N=30	N=30	N=30	N=30	N=30	N=30	N=61	N=55
Artemether/Lumefantrine 20/120mg	Tablet 6x4	79%	59%	97%	57%	94%	69%	100%	93%	87%	77%	23%	13%	77%	51%
Artemether/Lumefantrine 20/120mg	Tablet 6x3	28%	18%	30%	0%	32%	7%	50%	67%	50%	37%	17%	3%	10%	4%
Artemether/Lumefantrine 20/120mg	Tablet 6x2	20%	15%	7%	0%	32%	14%	40%	40%	30%	27%	10%	10%	10%	7%
Artemether/Lumefantrine 20/120mg	Tablet 6x1	21%	17%	3%	0%	35%	3%	57%	47%	27%	47%	10%	7%	8%	5%
Artemether/Lumefantrine 20/120mg	Disp tablet 6x2	8%	5%	0%	0%	26%	3%	13%	17%	17%	13%	0%	0%	2%	0%
Artemether/Lumefantrine 20/120mg	Disp tablet 6x1	13%	7%	3%	0%	32%	0%	13%	23%	27%	20%	0%	0%	7%	4%
Artesunate+Amodiaquine 50+153mg	Co-blisters 12+12	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+153mg	Co-blisters 6+6	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+153mg	Co-blisters 3+3	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+150mg	Co-blisters 12+12	10%	6%	33%	20%	13%	7%	17%	17%	7%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+150mg	Co-blisters 6+6	4%	2%	17%	10%	0%	0%	13%	7%	0%	0%	0%	0%	0%	0%
Artesunate+Amodiaquine 50+150mg	Co-blisters 3+3	4%	2%	17%	3%	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%
Artesunate/Amodiaquine 100/270mg	Tablet 3x2	27%	12%	10%	7%	42%	17%	10%	3%	17%	7%	77%	33%	16%	7%
Artesunate/Amodiaquine 100/270mg	Tablet 3x1	25%	6%	33%	7%	19%	0%	7%	0%	17%	10%	77%	20%	11%	4%
Artesunate/Amodiaquine 50/135mg	Tablet 3x1	21%	6%	17%	10%	26%	3%	7%	0%	17%	7%	57%	17%	13%	2%
Artesunate/Amodiaquine 25/67.5mg	Tablet 3x1	22%	7%	7%	0%	19%	0%	13%	10%	13%	10%	83%	23%	10%	2%

Annex 3: Relative availability of non-AMFm medicines found by country The N below is the total frequency of different types of medicines found in the facility type. The percentages reported are relative to each other among all the medicines found in the facility and thus add up to 100% (percentages are rounded, thus totals may not exactly be 100%).

Medicine Type	ALL COUNTRIES		GHANA		KENYA		NIGERIA		TANZANIA		MADAGASCAR		UGANDA	
	FORMA L	INFOR- MAL	FORMA L	INFOR- MAL	FORMA L	INFOR- MAL	FORMA L	INFOR- MAL	FORMA L	INFOR- MAL	FORMA L	INFOR- MAL	FORMA L	INFOR- MAL
	N=1987	N=1075	N=237	N=53	N=268	N=61	N=678	N=520	N=360	N=232	N=107	N=46	N=337	N=163
Amodiaquine suspension 50mg / 5mL	3.9%	5.5%	7.2%	11.3%	0.4%	6.6%	3.5%	3.8%	9.7%	12.5%	0.0%	0.0%	0.3%	0.0%
Amodiaquine tablet 200mg (as HCl)	3.1%	4.7%	0.4%	0.0%	0.4%	4.9%	4.0%	4.4%	9.2%	9.9%	0.0%	0.0%	0.0%	0.6%
Artemether tablet 50mg	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Artemether/lumefantrine tablet 20/120mg	9.9%	7.1%	17.3%	13.2%	11.2%	11.5%	9.9%	8.1%	2.2%	0.4%	11.2%	2.2%	11.6%	11.0%
Artesunate suppository 50mg	0.2%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Artesunate tablet / capsule 50mg	2.2%	3.4%	3.0%	0.0%	0.0%	0.0%	5.5%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Artesunate/amodiaquine tablet 50/153mg	1.6%	1.9%	2.1%	0.0%	0.0%	0.0%	3.7%	3.8%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%
Artesunate/mefloquine tablet 25/55mg	0.4%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%
Artesunate/mefloquine tablet 100/220mg	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Atovaquone-proguanil adult tablet 250/100mg	1.7%	0.7%	0.0%	0.0%	3.0%	0.0%	2.8%	1.5%	0.6%	0.0%	0.0%	0.0%	1.2%	0.0%
Artesunate/mefloquine tablet 300/375mg	2.5%	1.4%	0.0%	0.0%	3.4%	0.0%	3.8%	2.5%	2.2%	0.9%	0.0%	0.0%	2.1%	0.0%
Artesunate/mefloquine tablet 600/675mg	0.4%	0.0%	0.4%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%
Chloroquine syrup 50mg/5ml	2.8%	4.3%	0.0%	0.0%	0.4%	0.0%	8.1%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Chloroquine tablet 100mg	1.6%	2.8%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	27.1%	60.9%	0.6%	1.2%
Chloroquine tablet 150mg	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%
Chloroquine tablet 250mg	2.6%	4.5%	0.0%	1.9%	0.0%	0.0%	5.0%	7.1%	0.0%	0.0%	0.0%	0.0%	5.0%	6.1%
Dihydroartemisin tablet 60mg	2.9%	3.1%	10.1%	11.3%	0.0%	0.0%	4.3%	5.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.6%
Dihydroartemisinin/piperazine tablet 40/320mg	8.7%	5.4%	6.8%	3.8%	17.5%	14.8%	5.2%	3.7%	6.9%	6.0%	0.0%	0.0%	14.5%	8.6%
Doxycycline tablet / capsule 100mg	10.3%	10.6%	11.4%	11.3%	7.1%	8.2%	6.6%	8.3%	8.3%	9.5%	18.7%	4.3%	18.7%	22.1%
Halofantrine suspension 100mg/5mL	1.3%	0.9%	0.0%	0.0%	2.2%	0.0%	2.7%	1.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Halofantrine tablet 250mg	2.1%	1.3%	0.4%	0.0%	3.4%	0.0%	3.5%	2.5%	1.1%	0.0%	3.7%	2.2%	0.0%	0.0%
Mefloquine tablet 250mg (as HCl)	1.8%	0.0%	3.4%	0.0%	3.7%	0.0%	0.1%	0.0%	1.4%	0.0%	0.0%	0.0%	3.6%	0.0%
Proguanil tablet 100mg	3.6%	2.1%	0.8%	0.0%	10.4%	4.9%	4.6%	3.8%	1.7%	0.0%	0.9%	0.0%	0.9%	0.0%
Quinine drops 200mg/mL	0.6%	0.3%	0.0%	0.0%	2.2%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	1.2%
Quinine suspension 50mg/5mL	3.9%	4.0%	6.8%	7.5%	4.1%	8.2%	0.3%	0.2%	9.4%	8.6%	0.0%	0.0%	4.2%	8.0%
Quinine tablet 300mg (sulphate or bisulfate)	6.2%	5.5%	4.6%	5.7%	5.2%	4.9%	3.5%	1.5%	6.7%	5.2%	1.9%	0.0%	14.2%	20.2%
Sulphadoxine/pyrimethamine drops	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	1.2%
Sulphadoxine/pyrimethamine suspension 12.5mg/5mL	3.4%	5.2%	0.0%	0.0%	0.0%	0.0%	7.4%	8.5%	5.0%	4.7%	0.0%	0.0%	0.0%	0.6%
Sulphadoxine / pyrimethamine tablet 500/25mg	14.4%	16.9%	17.7%	30.2%	11.9%	18.0%	11.4%	13.5%	13.1%	17.7%	36.4%	30.4%	14.5%	18.4%
Sulphamethoxypyrazine / pyrimethamine susp 100mg/5mL	0.9%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	3.9%	0.0%	0.0%	0.0%	0.0%
Sulphamethoxypyrazine / pyrimethamine tablets 500/25mg	6.4%	7.4%	6.3%	3.8%	10.4%	16.4%	4.1%	3.8%	15.3%	20.7%	0.0%	0.0%	0.3%	0.0%

***N= Total frequency of different types of medicines found. The percent is relative to only those found; it is not absolute availability.

