ACTwatch Lite Nigeria 2024

Survey of the private market for antimalarial drugs and malaria rapid diagnostic tests in Nigeria 2024

April 2025

NATIONAL MALARIA ELIMINATION PROGRAMME
Federal Ministry of Health, Abuja

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ACRONYMS

ACT	Artemisinin-based combination therapy
AETD	Adult equivalent treatment dose
AL	Artemether lumefantrine
AMFm	Affordable Medicines Facility-malaria
ASAQ	Artesunate amodiaquine
ASMQ	Artesunate mefloquine
ASPY	Artesunate pyronaridine
PMC	Perennial malaria chemoprophylaxis
CQ	Chloroquine
CU5	Children under 5
DHAPPQ	Dihydroartemisinin-Piperaquine
DHS	Demographic and Health Survey
FDC	Fixed dose combinations
GFATM	The Global Fund to end TB AIDS and Malaria
IDI	In-depth interviews
IPTi	Intermittent preventive treatment for infants
KII	Key informant interviews
LGA	Local government area
LLIN	Long-lasting insecticide-treated nets
NAPPMED	National Association of Proprietary and Patent Medicine Vendors
NAFDAC	National Agency for Food and Drug Administration and Control
NGO	Non-governmental organization
NMEP	National Malaria Elimination Program
NMSP	National Malaria Strategic Plan
OTC	Over the counter
P.f.	*Plasmodium falciparum*
PCN	Pharmacy Council of Nigeria
PMI	President's Malaria Initiative
POS	Point of sale
PPMV	Patent & proprietary medicine vendor
PPS	Probability proportional to size
PSI	Population Services International
PY	Pyrethroid
QN	Quinine
RAS	Rectal artesunate
RDT	Rapid diagnostic test
WHO	World Health Organization

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DEFINITIONS AND KEY CONCEPTS

Artemisinin-based combination therapies (ACTs)	An antimalarial drug that combines artemisinin or one of its derivatives with one or more antimalarial drugs from a different class. ACTs are generally accepted as the preferred treatment for uncomplicated malaria.
ACTs registered nationwide	ACTs registered with the National Agency for Food and Drug Administration and Control (NFDAC), Nigeria's national pharmaceutical regulatory authority, and authorized for sale or distribution in Nigeria.
ACTwatch	Predecessor to ACTwatch Lite. From 2008- 2016, ACTwatch functioned as a research project designed to fill gaps in private and public sector malaria case management commodity market data across 13 countries in sub-Saharan Africa and the Greater Mekong Subregion.
ACTwatch Lite	Current project name to indicate that this is a streamlined version of the old ACTwatch project.
Adult equivalent treatment dose (AETD)	An AETD is the dosage (total number in milligrams (mg)) of an antimalarial drug needed to treat a 60 kg adult (see Appendix 3. Calculating AETD).
Antimalarial	Medicines used in the short-term treatment and prevention of malaria. The study includes an audit of all types and formulations of antimalarials found at outlets in the study area, whether used in in-patient or out-patient settings. The study excludes homemade remedies, herbal remedies, and other non-factory-made medicinal products used to treat malaria.
Artemisinin and its derivatives	Artemisinin is a plant extract or synthetic plant extract used in the treatment of malaria. The most common artemisinin derivatives used to treat malaria are artemether, artesunate and dihydroartemisinin.
Artemisinin monotherapy	An antimalarial drug with a single active compound, where the active compound is artemisinin or one of its derivatives.
Census area	A defined administrative or health area where field teams carried out a complete census of all outlets likely to sell anti-malarial drugs. In Nigeria, wards were used as the census area unit.
Cluster	The main sampling unit for the point-of-sale survey. This is the administrative unit used to carry out the surveys. For market research, administrative units of around 10,000-15,000 inhabitants are accepted. This is the case in countries where the ACTwatch project has been carried out in the past, and where at least one health facility or pharmacy could be found. In Nigeria, such administrative units correspond to health areas.
Dosage/therapeutic regimen	The dosage or administration time and number of doses of an antimalarial drug used to treat malaria. This schedule often varies according to the patient's weight.
First-line treatment	The National Malaria Elimination Programme (NMEP) recommends the following molecules as first-line treatment: Artemether Lumefantrine as the primary ACT deployed programmatically in Nigeria, with Artesunate Amodiaquine as an alternative. Additionally, Dihydroartemisinin Piperaquine and Artesunate Pyronaridine are also included in the guidelines.
Monotherapy	Antimalarial treatment with a single active compound or a synergistic combination of two compounds with related mechanisms of action.
Non-artemisinin treatment	An antimalarial drug that does not contain artemisinin or one of its derivatives.
Oral artemisinin monotherapy	Artemisinin or one of its oral derivatives with no other active ingredients. These include tablets, suspensions and syrups, but exclude suppositories and injections.
Point of sale (POS)	Any point of service or point of sale for goods. POS are not limited to fixed outlets and can include mobile units or individuals.
WHO prequalified ACTs	Pre-qualified ACTs comply with WHO quality assurance policies. A pre-qualified ACT is any ACT that was on the World Health Organization (WHO) indicative list prior to data collection or previously had C status in a previous Global Fund quality assurance policy. An antimalarial drug that is not WHO prequalified does not necessarily mean that it is not of good quality. (see https://extranet.who.int/prequal/medicines/prequalified/finished-pharmaceutical-products)
WHO prequalified RDT	Prequalified rapid diagnostic tests (RDTs) are RDTs that comply with WHO quality assurance policy. A pre-qualified RDT is one that was on the WHO indicative list prior to data collection. (see https://extranet.who.int/prequal/vitro-diagnostics/vitro-diagnostics-lists).

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Nationally approved products	The NAFDAC Greenbook includes registered malaria commodities (antimalarials and RDTs) and can be accessed through their website (see https://greenbook.nafdac.gov.ng/) or by contacting the NAFDAC Registration and Regulations Directorate. *Nationally approved ACTs are defined in this analysis as those that (1) were included in the database of known antimalarials from the version of the NAFDAC Greenbook accessed online May 2024 (was noted on the site as incomplete) or (2) were found during fieldwork and added to the database of known antimalarial products using the information and NAFDAC code on the product packaging.*
Severe malaria treatment	In Nigeria, severe malaria is treated with IV artesunate (or parenteral quinine/artemether if unavailable) for at least 24 hours, followed by a full ACT course. If full treatment isn't possible, patients should receive pre-referral IM/rectal artesunate or IM quinine and be referred immediately.
Supply chain levels	This study attempts to map the private health sector malaria commodity supply chain and gather information at each level. General supply chain levels have been defined throughout as: - Retail: outlets that sell directly to consumers (i.e. not for resale) - Wholesale: outlets that sell to other outlets or providers for resale. These may be terminal wholesalers that supply retail outlets or intermediate wholesalers that also or exclusively supply other wholesalers. - Local manufactures: entities within Nigeria that manufacture antimalarials and sell wholesale and/or retail businesses/ outlets. - Importer: entities that import malaria commodities for resale to wholesale and/or retail businesses/ outlets

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EXECUTIVE SUMMARY

The ACTwatch Lite Nigeria 2024 study provides critical insights into the private sector malaria commodity market across Lagos, Abia, and Kano states. This report highlights key findings from the study on market composition, availability, pricing, market share, supply chains, provider behavior, outlet characteristics and business practices, and regulatory challenges. The results serve as essential evidence to inform malaria case management, surveillance, and policy interventions, particularly within the private sector, which remains a dominant source of malaria treatment in Nigeria.

Key results

PPMVs remain the main outlet type for antimalarial distribution, accounting for most market share. The antimalarial market is diverse, with no single predominant manufacturer or brand across the three states surveyed. ACTs and injectable artemisinins are increasingly dominant compared with previous surveys, yet there is an apparent disconnect between antimalarial availability and malaria testing in Abia and Lagos states. While antimalarials are primarily distributed through PPMVs in all three states, testing is only commonly found in PPMVs in Kano.

WHO-prequalified and non-prequalified ACTs were similarly priced across all states. However, in Abia and Lagos, diagnostic tests were priced similarly or slightly higher than an adult-equivalent treatment dose (AETD) of ACTs, whereas in Kano, diagnostics were significantly cheaper, costing less than half the price of ACTs.

Reporting of malaria cases remains extremely low in the private sector, even within formal outlets, while supervision of those who do report is minimal. These findings underscore the need for targeted interventions to strengthen malaria case reporting, improve diagnostic accessibility, and ensure effective regulation across different regions.

Findings from the qualitative component reinforce these insights, highlighting persistent regulatory and economic challenges that affect product availability and affordability. Delays, high fees, and inconsistent enforcement hinder market entry and fair competition, while currency volatility and high import duties drive up costs. The prevalence of counterfeit products and supply chain inefficiencies further exacerbate market instability, with companies struggling to manage fluctuating demand and distribution constraints. Addressing these issues requires regulatory streamlining, economic stabilization policies, and enhanced supply chain management to improve the accessibility, quality, and affordability of antimalarials across Nigeria.

Finally, scoping of e-pharmacies in Nigeria suggests that while this outlet type exists in the Nigerian marketplace, and may grow in its market share in future, currently the online sector appears to be relatively nascent, and gathering data from these outlet types may require further methodological innovation.

Implications and recommendations

Significant variability exists between the three states, necessitating differentiated policy solutions and raising broader questions about trends in other regions of Nigeria. The findings from this ACTwatch Lite study reinforce the critical role played by the private sector, while underscoring the need for targeted policy interventions contextualized for the unique markets across states in Nigeria to improve case management and surveillance nationwide. Key recommendations based on the results of this study include:

Expand access to affordable malaria diagnostics to promote test-and-treat practices. In Abia and Lagos, RDTs were priced as high or higher than ACTs. To increase testing in the private sector, subsidies or other affordability strategies are needed

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Implement targeted training for PPMVs and pharmacists and social behavior change (SBC) interventions within provider and patient communities to promote adherence to case management guidelines to reduce overtreatment risks.

- Sensitize providers to AL-alternatives such as DHAPPQ or ASAQ for MFT adoption.
- Continue hitherto successful bans on oral artemisinin monotherapies, and reduce use of injectable artemisinins for non-severe illness avoid the development of resistance.
- Consider additional drug quality monitoring alongside increased regulation to limit sub-standard antimalarials from reaching the market.
- Leverage ACTwatch Lite data for national and subnational strategic planning, including funding applications and malaria program implementation.

Conclusion

The ACTwatch Lite study presented here provides standardized data for three states in Nigeria. These data contribute to evidence-base required for decision-making and strategic planning for malaria control efforts. The ACTwatch Lite approach offers a replicable model for other Nigerian states or other countries seeking to strengthen private sector surveillance and improve malaria case management.

Table 1 Key results for each state

ABIA	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Retail total % [95% CI]	Wholesalers % [95% CI]
Percentage of screened outlets* stocking on the day of the survey	N= 16	N= 17	N= 52	N= 3	N= 1323	N= 11	N= 1422	N= 29
At least one malaria diagnostic test§	81.2 [55.1; 93.8]	56.3 [29.3; 80]	16.5 [9.4; 27.3]	85.9 [37; 98.4]	0.1 [0; 0.3]	0 -	2.5 [1.6; 3.9]	7.4 [4.5; 11.9]
At least one antimalarial	96.6 [80.9; 99.5]	95.8 [76.8; 99.4]	100 [100; 100]	38.1 [5.9; 85.8]	99.1 [97.9; 99.6]	100 [100; 100]	98.9 [97.8; 99.5]	100 [100; 100]
At least one ACT	92.5 [74.3; 98.2]	69.2 [40.8; 87.9]	100 [100; 100]	38.1 [5.9; 85.8]	98 [96.7; 98.7]	100 [100; 100]	97.5 [96.2; 98.4]	100 [100; 100]
At least one nationally approved ACT#	96.6 [80.9; 99.5]	75.3 [43.6; 92.4]	98.8 [91; 99.8]	38.1 [5.9; 85.8]	92.6 [89.8; 94.7]	100 [100; 100]	92.6 [90; 94.6]	97.5 [81.2; 99.7]
At least one WHO-prequalified ACTY	0 -	0 -	21 [13.2; 31.7]	0 -	6.6 [4.4; 9.8]	0 -	6.9 [4.8; 9.7]	0 -
Sulfadoxine pyrimethamine (SP)	5.8 [1.3; 22.5]	28.9 [10.7; 58.2]	39.9 [25.9; 55.8]	0 -	17.9 [14.7; 21.6]	10.9 [1.4; 52.2]	18.5 [15.2; 22.3]	18.2 [9.7; 31.4]
At least one treatment for severe malaria	47.1 [20; 76.1]	47.4 [22.2; 73.9]	31.6 [23.7; 40.6]	0 -	3.4 [2.2; 5.3]	8.2 [2.6; 22.7]	5.4 [4.1; 7.1]	13.5 [11.3; 16.1]
Percentage of antimalarial-stocking outlets with:	N= 14	N= 15	N= 51	N= 2	N= 1302	N= 11	N= 1395	N= 29
Any malaria-related blood test	82.7 [53.2; 95.3]	57.8 [29.1; 82]	15.5 [8.6; 26.2]	62.8 [11; 95.8]	0.1 [0; 0.4]	0 -	2.3 [1.4; 3.7]	7.4 [4.5; 11.9]
At least one ACT	95.8 [75.8; 99.4]	72.2 [41.7; 90.4]	100 [100; 100]	100 [100; 100]	98.9 [97.6; 99.5]	100 [100; 100]	98.6 [97.1; 99.3]	100 [100; 100]
At least one nationally approved ACT#	100 [100; 100]	78.6 [43.3; 94.6]	98.8 [91; 99.8]	100 [100; 100]	93.5 [90.5; 95.5]	100 [100; 100]	93.6 [90.8; 95.6]	97.5 [81.2; 99.7]
At least one WHO-prequalified ACTY	0 -	0 -	21 [13.2; 31.7]	0 -	6.7 [4.4; 9.9]	0 -	6.9 [4.9; 9.8]	0 -
Sulfadoxine pyrimethamine (SP)	6 [1.3; 23.3]	30.2 [11; 60.1]	39.9 [25.9; 55.8]	0 -	18.1 [14.8; 21.8]	10.9 [1.4; 52.2]	18.7 [15.4; 22.6]	18.2 [9.7; 31.4]
At least one treatment for severe malaria	48.8 [20; 78.4]	49.4 [23.1; 76]	31.6 [23.7; 40.6]	0 -	3.4 [2.2; 5.3]	8.2 [2.6; 22.7]	5.5 [4.2; 7.2]	13.5 [11.3; 16.1]
Price in Naira	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)
1 AETD± adult ACT prequalified by WHO Y	₦0 -	₦0 -	₦1,200 [800; 4800] (12)	₦0 -	₦900 [800; 1400] (78)	₦0 -	₦1,000 [800; 1500] (90)	₦0 -
1 AETD± adult SP	₦500 [500; 16000] (2)	₦24,000 [800; 24000] (2)	₦700 [500; 16000] (34)	₦0 -	₦600 [500; 10000] (266)	₦500 [500; 8000] (5)	₦650 [500; 10000] (309)	₦500 [300; 10000] (7)
Adult RDT in-outlet test	₦1,000	₦1,500	₦1,500	₦0	₦500	₦0	₦1,500	₦0

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ABIA	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Retail total % [95% CI]	Wholesalers % [95% CI]
	[1000; 1000] (1)	[1500; 2500] (5)	[1000; 1500] (5)	-	[500; 1500] (3)	-	[1000; 1500] (14)	-

KANO	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Retail total % [95% CI]	Wholesalers % [95% CI]
Percentage of screened outlets * stocking on the day of the survey	N=10	N=98	N=130	N=68	N=1357	N=53	N=1716	N=20
At least one malaria diagnostic test§	100 -	70.8 [49.9; 85.5]	27.6 [11.6; 52.8]	99.6 [98; 99.9]	31.2 [27.3; 35.4]	13.6 [4.5; 34.5]	34.5 [30.2; 39]	23.5 [9.3; 48.1]
At least one antimalarial	99.4 [95.2; 99.9]	89.1 [80.3; 94.3]	98.3 [92.8; 99.6]	0.4 [0; 4]	93 [86.7; 96.4]	46.2 [23.4; 70.7]	84.9 [80; 88.8]	99.2 [93.8; 99.9]
At least one ACT	71.9 [23.5; 95.5]	81 [68.8; 89.1]	98.3 [92.8; 99.6]	0.4 [0; 4]	76.3 [65.5; 84.5]	41.1 [20.5; 65.4]	71 [63.4; 77.5]	99.2 [93.8; 99.9]
At least one nationally approved ACT#	71.9 [23.5; 95.5]	78.9 [67.5; 87.1]	98.3 [92.8; 99.6]	0.4 [0; 4]	77.9 [65.6; 86.8]	36.7 [19.1; 58.8]	71.8 [63.2; 79.1]	99.2 [93.8; 99.9]
At least one WHO-prequalified ACTY	32.2 [6.8; 75.6]	12.7 [6.3; 24]	35.5 [26.3; 46]	0 -	14.2 [11.4; 17.5]	0.8 [0.2; 2.9]	13.5 [11.1; 16.3]	0.8 [0.1; 5.9]
Sulfadoxine pyrimethamine (SP)	19.2 [5.4; 49.9]	37.9 [20.9; 58.5]	38.9 [30.7; 47.9]	0.4 [0; 4]	28.6 [24.8; 32.7]	8.4 [3.2; 20.5]	26.3 [22.7; 30.2]	46 [23; 70.8]
At least one treatment for severe malaria	97.6 [87.4; 99.6]	76.2 [63.8; 85.4]	85.3 [68.1; 94.1]	0 -	72.7 [63.3; 80.4]	25.6 [12.1; 46.2]	66.2 [59.8; 72.1]	93.3 [71; 98.7]
Percentage of antimalarial-stocking outlets with:	N= 9	N= 68	N= 122	N= 1	N= 1223	N= 33	N= 1456	N= 19
Any malaria-related blood test	100 [100; 100]	66.5 [41.1; 84.9]	27.7 [11.4; 53.4]	100 -	26.8 [22.6; 31.4]	26.3 [8.8; 57]	28.4 [23.9; 33.4]	23.7 [9.4; 48.3]
At least one ACT	72.3 [23.2; 95.8]	90.8 [78.9; 96.3]	100 [100; 100]	100 -	82.1 [74.2; 87.9]	88.9 [57.1; 98]	83.6 [76.3; 88.9]	100 [100; 100]
At least one nationally approved ACT#	72.3 [23.2; 95.8]	88.5 [78; 94.4]	99.9 [99.5; 100]	100 -	83.8 [74.6; 90.1]	79.4 [51.4; 93.3]	84.6 [76.3; 90.4]	100 [100; 100]
At least one WHO-prequalified ACTY	32.4 [6.8; 75.9]	14.2 [7; 26.7]	36.1 [26.6; 46.9]	0 -	15.3 [12.1; 19.1]	1.8 [0.5; 6]	15.9 [13; 19.3]	0.8 [0.1; 5.9]
Sulfadoxine pyrimethamine (SP)	19.3 [5.4; 50.2]	42.5 [24.2; 63.2]	39.6 [31; 48.9]	100 -	30.7 [27; 34.7]	18.3 [8.5; 34.9]	31 [27.2; 35]	46.4 [23.2; 71.2]
At least one treatment for severe malaria	98.2 [86.6; 99.8]	85.5 [73.9; 92.5]	86.8 [70.7; 94.7]	0 -	78.2 [71.2; 83.9]	55.3 [29; 79]	78 [71.2; 83.5]	94.1 [70; 99.1]
Price in Naira	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)	Median [IQR] (N)
1 AETD± adult ACT prequalified by WHO Y	₦1,000 [1000; 1000] (2)	₦400 [350; 3500] (9)	₦4,000 [666.7; 5600] (73)	₦0 -	₦600 [533.3; 800] (197)	₦800 [600; 4000] (6)	₦600 [600; 933.3] (287)	₦517 [500; 533.3] (2)
1 AETD± adult SP	₦1,000 [400; 1000] (4)	₦500 [350; 500] (22)	₦12,000 [350; 15000] (71)	₦200 [200; 200] (1)	₦300 [250; 350] (506)	₦250 [150; 15000] (11)	₦300 [250; 400] (615)	₦250 [200; 250] (10)
Adult RDT in-outlet test	₦300 [300; 500] (5)	₦500 [300; 700] (51)	₦500 [500; 500] (48)	₦400 [200; 500] (24)	₦300 [200; 300] (373)	₦200 [200; 500] (9)	₦300 [200; 400] (510)	₦0 -

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LAGOS	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Retail total % [95% CI]	Wholesalers % [95% CI]
Percentage of screened outlets * stocking on the day of the survey	**N= 3**	**N= 80**	**N= 337**	**N= 69**	**N= 500**	**N= 59**	**N= 1048**	**N= 3**
At least one malaria diagnostic test §	85.7 [36.8; 98.4]	45.1 [35.9; 54.6]	6.7 [4; 11.1]	97.1 [88.3; 99.3]	0.4 [0.2; 1.3]	0 -	10.7 [7.3; 15.3]	0 -
At least one antimalarial	100 [100; 100]	86.1 [77.3; 91.8]	92 [85.8; 95.6]	0 -	96.4 [91; 98.6]	85.3 [76; 91.4]	88.2 [85.2; 90.7]	100 [100; 100]
At least one ACT	85.7 [36.8; 98.4]	61.7 [44.4; 76.5]	92 [85.8; 95.6]	0 -	95.5 [90.4; 98]	78.2 [65.1; 87.4]	85.5 [82.2; 88.3]	100 [100; 100]
At least one nationally approved ACT#	85.7 [36.8; 98.4]	59.9 [38.6; 78]	90.5 [84.4; 94.4]	0 -	91.5 [84.6; 95.4]	72.3 [65.9; 78]	82.5 [79.2; 85.3]	84.7 [32.8; 98.4]
At least one WHO-prequalified ACTY	0 -	6.3 [1.6; 21.3]	27.3 [16.5; 41.7]	0 -	4.7 [2.5; 8.7]	9.1 [5.9; 13.8]	12.4 [7.8; 19.1]	84.7 [32.8; 98.4]
Sulfadoxine pyrimethamine (SP)	0 -	29.2 [18.5; 42.8]	29.4 [24; 35.3]	0 -	31.8 [25.5; 38.8]	30.1 [23.7; 37.3]	28.9 [25.6; 32.5]	0 -
At least one treatment for severe malaria	100 [100; 100]	71.2 [59.5; 80.7]	13.7 [10.2; 18.2]	0 -	0 -	0 -	9.6 [6.5; 13.9]	0 -
Percentage of antimalarial-stocking outlets with:	**N= 3**	**N= 64**	**N= 308**	**N= 0**	**N= 480**	**N= 54**	**N= 909**	**N= 3**
Any malaria-related blood test	85.7 [36.8; 98.4]	47.7 [39.2; 56.3]	7.1 [4.2; 11.8]	0 -	0.5 [0.2; 1.4]	0 -	5.9 [3.7; 9.1]	0 -
At least one ACT	85.7 [36.8; 98.4]	71.7 [52.1; 85.5]	100 [100; 100]	0 -	99.1 [97.1; 99.7]	91.7 [84.8; 95.7]	96.9 [95.2; 98]	100 [100; 100]
At least one nationally approved ACT#	85.7 [36.8; 98.4]	69.6 [45.9; 86]	98.4 [94.9; 99.5]	0 -	94.9 [91.2; 97.1]	84.8 [76.8; 90.4]	93.5 [91.4; 95]	84.7 [32.8; 98.4]
At least one WHO-prequalified ACTY	0 -	7.3 [1.9; 23.8]	29.7 [18.3; 44.5]	0 -	4.9 [2.6; 9]	10.7 [6.7; 16.6]	14.1 [8.8; 21.8]	84.7 [32.8; 98.4]
Sulfadoxine pyrimethamine (SP)	0 -	33.9 [21.8; 48.7]	32 [26.1; 38.5]	0 -	33 [26.7; 39.9]	35.3 [27.6; 43.7]	32.8 [29.1; 36.7]	0 -
At least one treatment for severe malaria	100 [100; 100]	82.8 [69.2; 91.1]	14.9 [11.1; 19.6]	0 -	0 -	0 -	10.8 [7.2; 15.9]	0 -
Price in Naira	**Median** [IQR] (N)	**Median** [IQR] (N)	**Median** [IQR] (N)	**Median** [IQR] (N)	**Median** [IQR] (N)	**Median** [IQR] (N)	**Median** [IQR] (N)	**Median** [IQR] (N)
1 AETD± adult ACT prequalified by WHO Y	₦0 -	₦6,000 [4800; 14000] (4)	₦4,800 [3500; 6200] (103)	₦0 -	₦700 [700; 800] (21)	₦700 [700; 800] (4)	₦4,500 [2000; 6000] (132)	₦4,400 [4400; 4400] (1)
1 AETD± adult SP	₦0 -	₦14,000 [400; 30000] (14)	₦750 [500; 16000] (135)	₦0 -	₦500 [400; 700] (217)	₦3,000 [400; 6000] (18)	₦500 [400; 10000] (384)	₦0 -
Adult RDT in-outlet test	₦1,000 [1000; 1000] (1)	₦2,000 [1500; 3500] (13)	₦2,500 [1000; 2500] (10)	₦2,000 [1500; 3000] (8)	₦1,000 [1000; 1000] (4)	₦0 [0; 0] (0)	₦2,000 [1000; 2700] (36)	₦0 [0; 0] (0)

Table 1 Abbreviations: RDT, Rapid diagnostic test; ACT, Artemisinin-based combination therapy; AETD: Adult-equivalent treatment dose (for the treatment of a 60kg adult.)

Table 1 footnotes: * The denominator includes all outlet screened; ^ includes wholesalers, who supply only outlets, and "other suppliers", who are outlets that supply both other outlets and the public; # The ACTs approved at national level are those on the NAFDAC list or with a NAFDAC code; ± see appendix for AETD calculations; § "diagnostic test" means microscopy or RDT

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ACTWATCH LITE PROJECT OVERVIEW

Since 2022, the Gates Foundation has funded Population Services International (PSI) to implement ACTwatch Lite in Benin, Cameroon and Nigeria. Through market surveys, ACTwatch Lite rapidly produces high-quality malaria treatment, diagnostic and provider data from formal and informal private sector outlets and their supply chains. These data are designed to help country and global stakeholders 1) understand the private sector malaria commodity market; 2) inform national and sub-national strategic planning (e.g. NSP), decision-making, policy changes, and areas for intervention; 3) contribute to the development of Global Fund concept notes and other funding opportunities.

ACTwatch Lite is a streamlined version of the previous ACTwatch project, a private sector market survey that gathered data from across 13 African and Southeast Asian countries between 2007 and 2016. Innovations in ACTwatch Lite's methodology have increased the speed with which evidence is generated, while continuing to focus on technical quality or rigor. Through the modernization of study tools and operations, data collection/entry timelines have reduced considerably to 1-2 months. Data management, analysis and preliminary results generation processes, which used to take 6-8 months, now takes 6-8 weeks. ACTwatch Lite has also innovated to combined outlet and supply chain studies and developed a modular, transferable design to enable local tailoring based on country context and private sector outlet types.

In addition to high-quality private sector antimalarial, diagnostic and provider data, ACTwatch Lite will produce a WHO-approved toolkit that, when combined with appropriate advocacy, will catalyze support for the adoption of ACTwatch Lite methods in other countries.

NIGERIA STUDY OVERVIEW

INTRODUCTION

In 2024, an ACTwatch Lite[1] survey of private health sector malaria commodity markets was conducted in Lagos, Abia, and Kano states, Nigeria. Per ACTwatch Lite objectives, the market survey provided state-level data on the availability, price, and market share for antimalarials and malaria blood testing at private sector outlets, as well as information on the characteristics and business practices at these outlets and of other actors within the supply chain (wholesalers, importers, distributors, local manufacturers, and e-pharmacies). This research built on previous ACTwatch market studies conducted in 2009, 2011, 2013, and 2015.

Through Nigeria's National Malaria Strategic Plan (NMSP) 2021–2025, the NMEP set a goal for diagnosis and appropriate treatment of 80% of the target population at risk by 2025.[2] ACTwatch Lite Nigeria data will support this effort by providing key private sector data to inform interventions aimed at strengthening private health sector case management and surveillance systems and to serve as a baseline against which case management indicator progress can be measured.

[1] *Population Services International. Gathering accessible insights into private sector malaria markets. Accessible at: https://www.psi.org/actwatch-lite*
[2] *National Malaria Strategic Plan, 2021 – 2025; National Malaria Elimination Programme (2020). Accessible at: NATIONAL-MALARIA-STRATEGIC-PLAN-Nigeria-2021-2025-Final.pdf*

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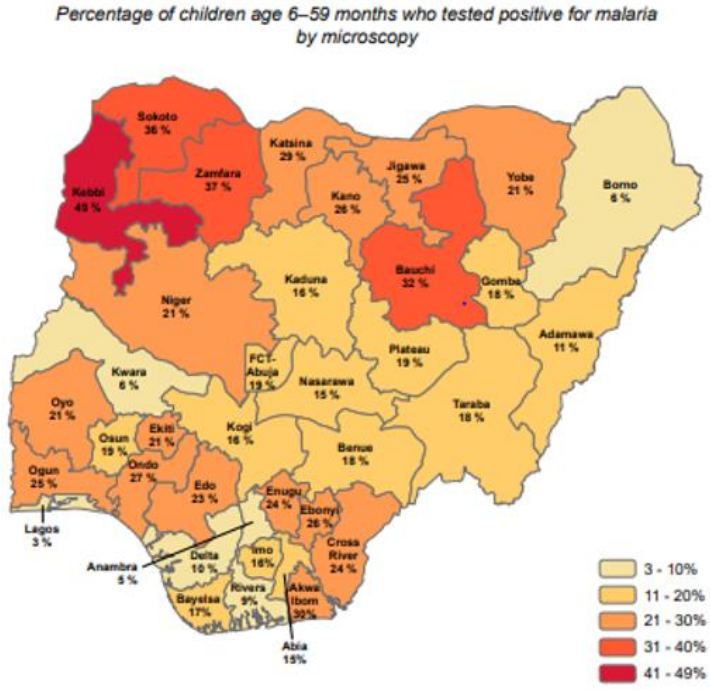
BACKGROUND

Malaria In Nigeria

Nigeria carries the world's highest burden of malaria, accounting for 26% (~68 million) of all global cases, and 31% (~169,000) of all global deaths in 2023.[3] Nearly the entire population (97%)[4] is at risk, with malaria transmission occurring year-round. According to Malaria Indicator Survey, while the national malaria prevalence dropped from 42% in 2010 to 21% in 2021, malaria remains the leading cause of child mortality. There are stark regional disparities, with prevalence ranging from 3% in Lagos to 49% in Kebbi (Figure 1).

Figure 1 Map of malaria prevalence in Nigeria



Source: "Figure 4.15 prevalence of malaria in children by state", Malaria Indicator Survey, 2021

Although efforts have led to improvements in case management, including increased availability of ACTs and RDTs, significant gaps remain in access and adherence to guidelines, particularly in the private health sector. Among children with fever for whom advice or treatment was sought, nationally, 56% utilized the formal or informal private sector. Pharmacies and PPMVs were the most utilized private sector outlet type (21% and 23%, respectively), while government hospitals and health centres were most utilized public sector facility types (18% and 14%), respectively.[5] The NMSP 2021–2025 emphasizes the need for continued progress, aiming for less than 10% parasite prevalence and a reduction in malaria-related mortality to fewer than 50 deaths per 100,000 live births by 2025.

Lagos

Lagos is a primarily urban state with approximately 15.3 million inhabitants. Located in Nigeria's South West zone, Lagos' climate is classified as tropical savanna. Lagos is primarily urban and relatively wealthy, and it

[3] *World malaria report 2024: addressing inequity in the global malaria response. Geneva: World Health Organization; 2024. License: CC BY-NC-SA 3.0 IGO.*
[4] *U.S. President's Malaria Initiative. Nigeria Malaria Operational Plan FY 2024. Accessible at: https://d1u4sg1s9ptc4z.cloudfront.net/uploads/2023/12/FY-2024-Nigeria-MOP.pdf*
[5] *National Malaria Strategic Plan, 2021 – 2025; National Malaria Elimination Programme (2020). Accessible at: NATIONAL-MALARIASTRATEGIC-PLAN-Nigeria-2021-2025-Final.pdf*

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represents a pre-elimination context for this study. The NMEP's 2019 stratification for optimizing intervention mix classified LGAs within Lagos state as low, medium and high risk for malaria, although most Lagosians live in low-risk LGAs.i Lagos' intervention mix across LGAs is case management, intermittent preventive treatment for malaria in pregnancy (IPTp), pyrethroid (PY)-only long-lasting insecticide-treated nets (LLINs) and intermittent preventive treatment for infants (IPTi).[6] Microscopy-confirmed malaria prevalence in children under five (CU5) was 2.6% in 2021, up from 1.8% in 2018, but still the lowest in Nigeria.[7] Some 12% of CU5 had a fever in the two weeks preceding the 2023-2024 DHS in Lagos, down from 35% in 2021. Of those CU5 recorded with fever in 2023/24, 82% sought treatment, and 74% of those received ACT. [8]

Abia

Abia is a rural state with approximately 4.1 million inhabitants. Located in Nigeria's South East zone, Abia's climate is classified as tropical monsoon and tropical savanna, and its primary economic driver is agriculture. The NMEP's stratification for optimizing intervention mix classified LGA's in Abia state to range from low to medium risk for malaria. All LGAs emphasize case management, IPTp, and PY-only LLINs and about one third of LGAs implement IPTi as part of their intervention mix. Microscopy-confirmed malaria prevalence in CU5 was 15% in 2021, similar to the 14% measured in 2018. Some 26% of CU5 had a fever in the two weeks preceding the 2023-2024 DHS in Abia, down from 41% in 2021. Of those CU5 recorded with fever in 2023/24, 60% sought treatment, and 82% of those received ACT.[9]

Kano

Kano is a rural state with approximately 15.8 million inhabitants. Located in Nigeria's North West zone, Kano's climate is classified as tropical savanna and hot semi-arid. Like Abia, Kano's primary economic driver is agriculture. The NMEP's stratification and analysis for optimizing intervention mix classified LGA's in Kano state to range from high to very risk for malaria. All LGAs implement case management, IPTp, and seasonal malaria chemoprevention. While LLINs are also universally a part of the mix in Kano, one quarter of LGAs use piperonyl butoxide-synergist LLINs, which enhance the pyrethroid's lethality against pyrethroid-resistant mosquito strains. Microscopy-confirmed malaria prevalence in CU5 was 26% in 2021, down from the 32% in 2018. Some 26% of CU5 had a fever in the two weeks preceding the 2023-2024 DHS in Kano, down from 31% in 2021. Of those CU5 recorded with fever in 2023/24, 45% sought treatment, and 43% of those received ACT.[10]

Malaria case management in Nigeria

In line with WHO recommendations,[11] the Nigerian National Guidelines for Diagnosis and Treatment of Malaria emphasize parasitological confirmation of all suspected malaria cases via microscopy or RDTs prior to treatment.[12] Still, nationally, only 20% of CU5 with fever received diagnostic testing in 2023/24,[13] far below the NMEP's NMSP 2025 target of 97%. The guidelines also recommend that all cases of malaria in Nigeria are

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[6] *Ibid. Accessible at: NATIONAL-MALARIASTRATEGIC-PLAN-Nigeria-2021-2025-Final.pdf*

[7] *National Malaria Elimination Programme (NMEP) [Nigeria], National Population Commission (NPC) [Nigeria], and ICF. 2022. Nigeria Malaria Indicator Survey 2021 Final Report. Abuja, Nigeria, and Rockville, Maryland, USA: NMEP, NPC, and ICF. Accessible at: The DHS Program - Nigeria: MIS, 2021 - MIS Final Report (English)*

[8] *Federal Ministry of Health and Social Welfare of Nigeria (FMoHSW), National Population Commission (NPC) [Nigeria], and ICF. 2024. Nigeria Demographic and Health Survey 2023–24: Key Indicators Report. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF. Accessible at: The DHS Program - Nigeria Demographic and Health Survey 2023-24 - Key Indicators Report (English)*

[9] Ibid. *Accessible at: The DHS Program - Nigeria Demographic and Health Survey 2023-24 - Key Indicators Report (English)*

[10] Ibid. Accessible at: The DHS Program - Nigeria Demographic and Health Survey 2023-24 - Key Indicators Report (English)

[11] *WHO guidelines for malaria, 16 October 2023. Geneva: World Health Organization; 2023 (WHO/UCN/GMP/ 2023.01 Rev.1). License: CC BY-NC-SA 3.0 IGO.*

[12] *National Guidelines for Diagnosis and Treatment of Malaria, May 2015; National Malaria Elimination Programme*

[13] *Federal Ministry of Health and Social Welfare of Nigeria (FMoHSW), National Population Commission (NPC) [Nigeria], and ICF. 2024. Nigeria Demographic and Health Survey 2023–24: Key Indicators Report. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF. Accessible at: The DHS Program - Nigeria Demographic and Health Survey 2023-24 - Key Indicators Report (English)*

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treated with an ACT. AL is recommended as the first-line treatment for uncomplicated malaria, with ASAQ recommended as the second-line treatment. Both drugs are available in fixed dose combinations (FDC) as co-formulated tablets and dispersible tablets for children. DHAPPQ and ASPY are also recommended but not thought to be widely used.[14] Severe malaria is treated with parenteral artesunate, while oral artemisinin monotherapies and chloroquine are explicitly prohibited. The NAFDAC is responsible for the registration of all antimalarials.

Private sector malaria case management

The private health sector is a cornerstone of malaria case management in Nigeria. More than half of care-seeking for febrile illnesses occurs in private outlets, including pharmacies, PPMVs, and private health facilities. These outlets are often the first stop for fever treatment, especially in rural and underserved areas.

PPMVs, which often operate with minimal formal health qualifications, are a key source of over-the-counter medicines and advice, though many remain unregulated.[15] Online or e-pharmacies are thought to be gaining prominence in urban markets, although little data has been generated on this outlet type prior ACTwatch Lite 2024. Both formal public and private sectors operate distinct medicine supply chains regulated by the NAFDAC, with the private sector driven primarily by market demand.

While the private sector plays a dominant role in malaria commodity distribution, challenges such as limited diagnostic capacity, unregulated outlets, and inadequate reporting systems persist. This highlights the need to understand the market dynamics of antimalarial products and diagnostic tools in the private sector.

[14] U.S. President's Malaria Initiative. Nigeria Malaria Operational Plan FY 2024. Accessible at: https://d1u4sg1s9ptc4z.cloudfront.net/uploads/2023/12/FY-2024-Nigeria-MOP.pdf

[15] Oyeyemi, A.S., Oladepo, O., Adeyemi, A.O. et al. The potential role of patent and proprietary medicine vendors' associations in improving the quality of services in Nigeria's drug shops. BMC Health Serv Res 20, 567 (2020). https://doi.org/10.1186/s12913-020-05379-z

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STUDY RATIONALE

Since the conclusion of the original ACTwatch project in 2015, there has been limited availability of robust data on the availability, pricing, and market share of malaria commodities, particularly within private outlets. This study aimed to fill this data gap as well as evaluate progress on key private sector malaria programming goals, including adherence to case management guidelines, the availability of quality-assured ACTs, and the effectiveness of the 2006 ban on oral artemisinin monotherapy.[16] Findings from this study will be used as evidence for national policies and strategies to strengthen private sector participation in malaria diagnosis, treatment, and surveillance by targeting systemic challenges identified.

RESEARCH OBJECTIVES

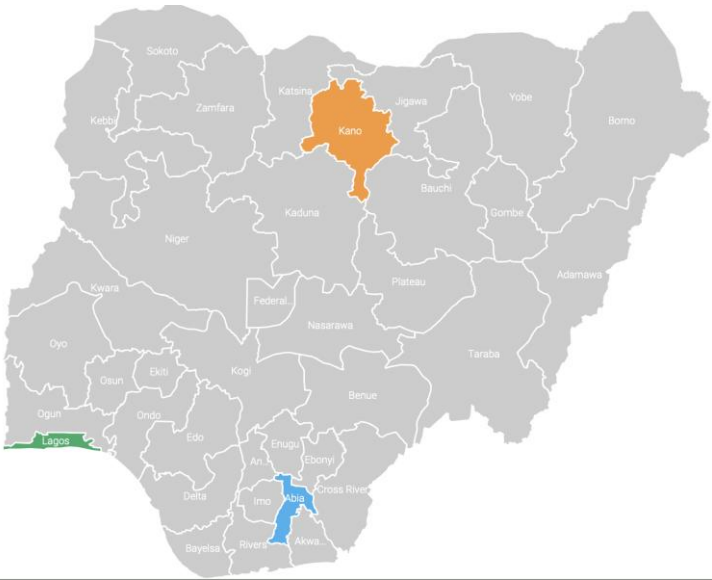
- Determine the characteristics of the retail market (private health facilities, faith-based health facilities, pharmacies, and pharmaceutical depots, PPMVs and online sources) for antimalarials and malaria diagnostic tests.
- Determine the characteristics of the wholesale market for antimalarial medicines and malaria diagnostic tests; and
- Assess the supply chain structure for antimalarials and RDTs, in terms of importer networks, wholesaler distribution, and common distribution practices.

For each objective, ACTwatch Lite is designed to provide key indicators detailed in Appendix 1. Key indicator definitions.

METHODS

The ACTwatch Lite study in Nigeria is a cross-sectional study that assessed the private health sector market for antimalarials and malaria diagnostic tests in three Nigerian states: Lagos, Abia, and Kano. These states were chosen in consultation with stakeholders to ensure geographic diversity, varied epidemiological profiles, and because of their significant private health sector presence.

Figure 2 ACTwatch Lite Nigeria 2024 – Selected States (Kano, Lagos and Abia)



The 2024 ACTwatch Lite survey was conducted in Abia, Kano, and Lagos states.

16 ACTwatch Group., Ujuju, C., Anyanti, J. et al. When it just won't go away: oral artemisinin monotherapy in Nigeria, threatening lives,

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The study included three components:

1. Cross-sectional market survey of outlets with the potential to sell and/or supply antimalarial products and/or malaria blood testing (microscopy or RDTs).
2. Key informant interviews (KIIs) with importers of antimalarial products and RDTs serving wholesale outlets (importers).
3. Market scoping of the online, or e-pharmacy sector in Nigeria to assess the feasibility of including these outlets in ACTwatch Lite, and gathering data on product availability, price and volumes if so.

Component A: Quantitative Market Survey

Component A utilized a structured quantitative questionnaire to gather data from private health sector retail outlets and their suppliers in Lagos, Abia, and Kano. The survey targeted all formal and informal outlets likely to sell or distribute antimalarials within predefined study areas. Outlet types included in the survey are listed in Table 2 Outlet types. Outlets were eligible if they had antimalarials in stock or provided malaria testing on the survey day or within the preceding three months. Suppliers identified through retail surveys were included if they had stocked antimalarials or RDTs within the same timeframe and located in the study areas.

Table 2 Outlet types

Private not-for-profit health facilities	NGO or mission/faith-based health facilities including hospitals and clinics (and diagnostic laboratories providing treatment direct to clients).
Private for-profit healthcare facilities	Private hospitals and clinics providing diagnosis and treatment at commercial rates
Laboratories	Stand-alone businesses or entities linked to private hospitals or clinics that provide medical diagnostic services, including microscopy, rapid diagnostic tests (RDTs), and/ or molecular diagnostics.
Community pharmacies (CPs)	CPs are licensed by the Pharmacy Council of Nigeria (PCN) and are authorized to sell all classes of medicines including prescription-only medicines. Pharmacies are owned by registered pharmacists or owners employing the services of a registered pharmacist. Pharmacists are registered and regulated by the PCN. Stand-alone retail pharmacies are also known as community pharmacies, to differentiate them from pharmacies present or linked to health facilities
Patent & Proprietary Medicine Vendors (PPMVs)	PPMVs are small-to-medium sized outlets selling primarily over-the-counter (OTC) medicines. Over 200,000 PPMVs exist across Nigeria. PPMVs may be registered by the PCN. However, many are not registered. PPMVs are legally permitted to sell over-the-counter medicines including antimalarials and have an association to protect their interests called National Association of Patent and Propriety Medicine Vendors (NAPPMED).
Informal sector	In this report, we present results for key indicators for the "informal private sector" as a whole. Private informal sector outlets surveyed include retail shops, street vendors, and persons selling malaria commodities from their home.
Wholesalers (terminal and intermediate)	Terminal wholesalers are outlets which supply the above retail outlets and facilities directly (estimated as 60% of all wholesalers based on the 2009 ACTwatch Supply Chain Survey in Nigeria)[17]. Intermediate wholesalers are outlets that supply other wholesalers (or outlets that sell drugs only for resale, not directly to customers). These are estimated as 37% of wholesalers based on above referenced survey.

17 Palafox B, Patouillard E, Tougher S, Goodman C, Hanson K, Arogundade ED, O'Connell K and the ACTwatch Study group. 2012.ACTwatch 2009 Supply Chain Survey Results, Nigeria. Nairobi: ACTwatch project, Population Services International.

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Other suppliers	Outlets other than importer-wholesalers have played a role in the supply of antimalarials in Nigeria. These were either identified by other outlets as their source of supply, or identified themselves during the outlet survey as suppliers to other types of outlets. These outlets were often pharmacies supplying private non-profit or for-profit health establishments.

A two-stage cluster sampling approach was used, stratifying by urban and rural areas, to ensure geographic representation within each state. A total of 125 study areas (localities/wards)[18] were selected within each state based on population size, malaria burden, and the size of the private health sector. More information on the sample size calculation is provided in Appendix 2. Sampling. Both maps and lists of sampled clusters in each state is available in Appendix 5. Study area maps and lists.

The tool captured key indicators on the availability, pricing, and market share of antimalarials and RDTs, as well as provider practices and supply chain dynamics (Appendix 1. Key indicator definitions). Data collection spanned four to six weeks per state, with survey teams trained extensively to ensure quality and consistency beforehand. Data was collected using an ODK-based digital questionnaire programmed using SurveyCTO. Quality control measures included daily field supervision, automated logic checks in data collection tools, and remote monitoring of data for consistency. Data were analyzed using Stata[19] with sampling weights applied to account for clustering and variations in selection probability (Appendix 4. Weighting the datasets). The analysis provided in this report are presented for each state and disaggregated by outlet type and urban/rural strata.

Component B: Qualitative Importer/ distributor/ manufacturer interviews

To supplement the quantitative survey at the retail and wholesale level, we engaged importers, distributors, and local pharmaceutical manufactures in semi-structured qualitative interviews to better understand their role in the supply chain of malaria commodities in the private sector. The qualitative component of this study examined the supply chain structure for antimalarials and RDTs in Nigeria, focusing on key themes including regulatory challenges, economic factors, market dynamics, distribution and logistics, and product quality and availability.

A total of 45 interviews (15 per state) were conducted by 6 experienced interviewers with private-sector companies and organizations registered with the PCN, involved in the importation, manufacturing, and distribution of antimalarials and/or RDTs, and based in Abia, Kano, and/or Lagos, until thematic saturation was reached. Participants were purposively selected to represent a range of business size, types, and structures.
A semi-structured thematic guide (Appendix 6. Qualitative data collection) was used to guide interviews that captured information on participants' practices related to stocking, pricing, distribution networks, competition, sources of information on products and pricing, sales revenues, and regulation.

A thematic analysis approach was used to systematically review and code interview data. An initial coding structure, informed by the analytical framework and existing literature, was applied to the interview notes and refined iteratively. Findings were triangulated with secondary data and analyzed using Dedoose.[20] Thematic

18 Operational ward boundaries were used for sampling and sourced from Center for International Earth Science Information Network (CIESIN), Columbia University. 2024. GRID3 NGA - Operational Wards v1.0. New York: GRID3. Accessible at: https://data.grid3.org/datasets/GRID3::grid3-nga-operational-wards-v1-0/
19 StataCorp. 2017. Stata Statistical Software: Release 15. College Station, TX: StataCorp LLC.
20 Dedoose Version 9.0.17, cloud application for managing, analyzing, and presenting qualitative and mixed method research data (2021). Los Angeles, CA: SocioCultural Research Consultants, LLC www.dedoose.com.

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coding was supplemented by a review of relevant documents on malaria control regulations and polices to contextualize findings.

The findings from these engagements enriched the study's understanding of the private sector supply chain and its role in malaria commodity distribution, while also laying the groundwork for future collaborations with these stakeholders. It provided insights into the operational realities of organizations and businesses involved in the production, importation, and distribution of antimalarial products.

Component C: E-Pharmacy scoping

Online pharmacies, or e-pharmacies are thought to be playing an increasingly important role in the supply of pharmaceuticals to consumers in Nigeria. To build on existing literature on e-pharmacies in Nigeria,[21,22] Component C of the ACTwatch Lite Nigeria study included a landscaping of the e-pharmacy sector's scale and roles in the private health sector supply of antimalarials and malaria RDTs.

Scoping was originally planned to follow a two-part protocol: (1) surveying private-sector retail pharmacies to determine the frequency of online buying and selling, and (2) conducting a systematic review of online pharmacy platforms, including a comprehensive mapping of e-pharmacies operating in Nigeria. However, due to challenges in obtaining a sampling frame of online pharmacies, a pragmatic approach was adopted. The PSI Nigeria research team targeted scoping to known online pharmacy platforms by:

- Identifying online pharmacies based on prior knowledge and web searches.
- Extracting key information to understand their business models and offerings.
- Auditing a selection of antimalarial products to assess availability of product information and pricing.

The findings from this exploratory effort provide insights into the e-pharmacy sector as a potentially growing area within Nigeria's private health ecosystem, but more research is required to better understand their true scale at a national level.

21 Ndem E, Udoh A, Awofisayo O, Bafor E. Consumer and Community Pharmacists' Perceptions of Online Pharmacy Services in Uyo Metropolis, Nigeria. Innov Pharm. 2019;10(3):10.24926/iip.v10i3.1774. Published 2019 Oct 3. doi:10.24926/iip.v10i3.1774:
22 Tambo, Ernest & Anyorigiya, Thomas & Matimba, Alice & Adedeji, Ahmed & Jeanne, Ngogang. (2016). DIGITAL PHARMACY ANDPHARMACOVIGILANCE ECOSYSTEM IN AFRICA: PERCEPTIONS AND OPPORTUNITIES. ejpmr, European Journal of Pharmaceutical and Medical Research. 3. 84-90.

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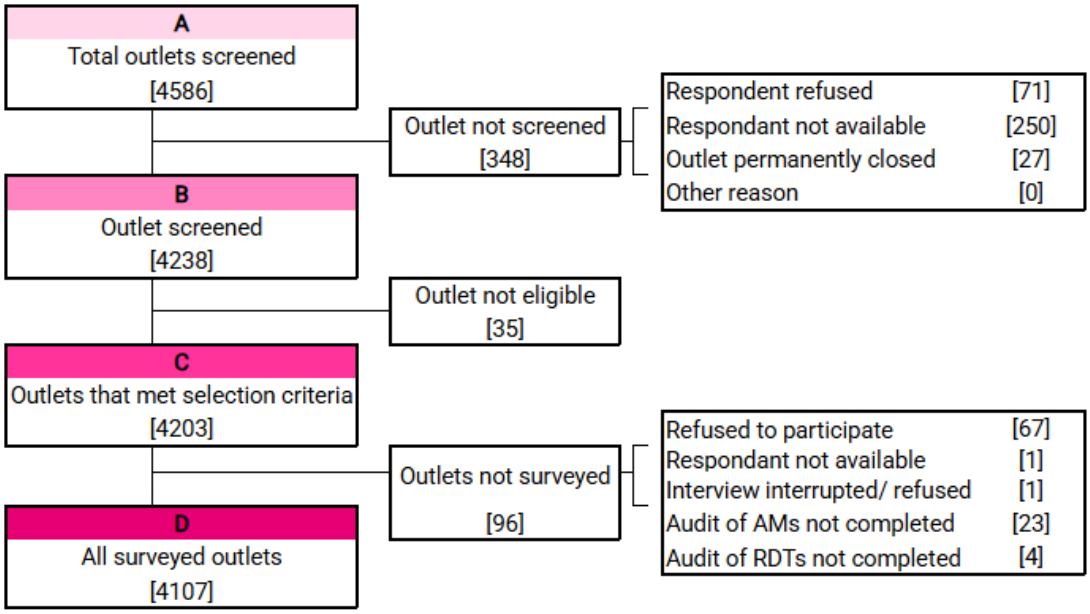
SECTION A: KEY MARKET SURVEY RESULTS

The following section provides key results for the three states include in the Nigeria 2024 ACTwatch Lite study.

SURVEY FLOW DIAGRAM

Figure 3. Survey Flow Diagram



The survey flow diagrams provide an overview of the outlet screening and survey completion process across all three states. In total, 4,586 outlets were screened. A proportion of these outlets were not surveyed due to various reasons, including respondent refusal, respondent unavailability, permanent closure of the outlet, or other factors (4,107 outlets surveyed; 90%). The number of outlets successfully screened and found eligible varied by state:

- Abia: 1,527 outlets were screened and 1,433 surveyed (94%) mostly due to outlets refusing (20) or unavailable for screening (55)
- Kano: 1,834 outlets were screened and 1690 surveyed (92%) mostly due to outlets unavailable for screening (75), or permanently closed (17), or eligible outlets refusing to participate (17)
- Lagos: 1,225 outlets were screened and 984 were surveyed (80%) resulting in the lowest participation rate. This was mostly attributed to outlets refusing (45) or not available for screening (120), or eligible outlets refusing to participate (45)

Despite these challenges, the final dataset captures a comprehensive and representative sample of private sector outlets distributing antimalarials and RDTs in Nigeria.

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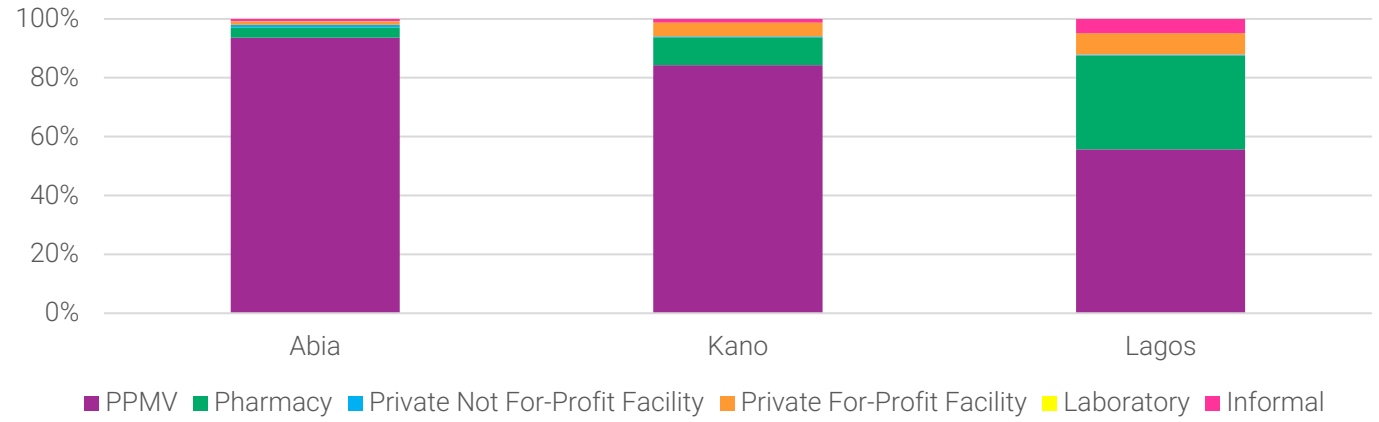
1 MARKET COMPOSITION

1.1 Market Composition among antimalarial-stocking outlets

Figure 4. The distribution (proportion) of all antimalarial-stocking outlet types, by state

Among outlets with at least one antimalarial in stock on the day of the survey



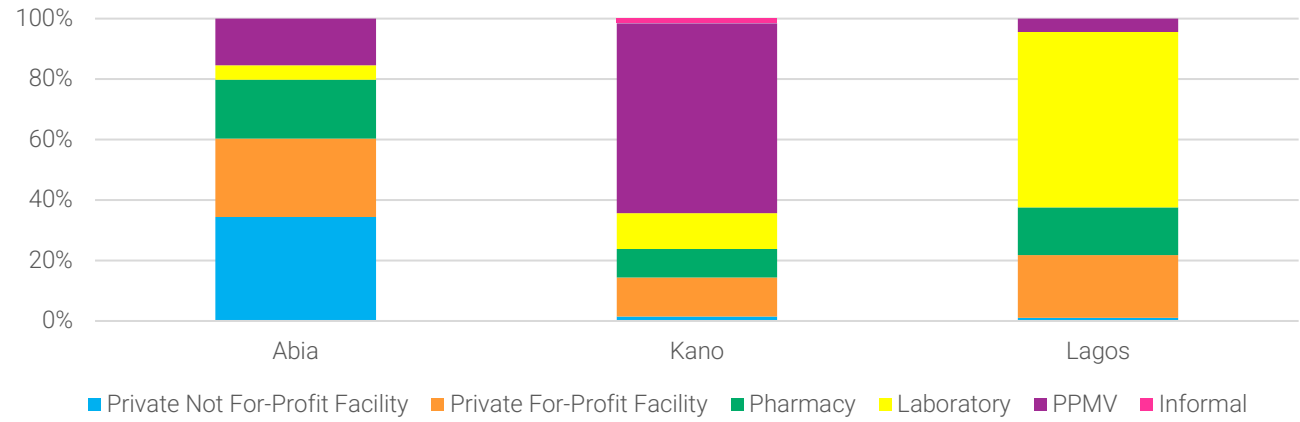
Total antimalarial stocking outlets: Abia=1408 Kano=1543 Lagos=916

The market composition for antimalarial stocking outlets describes the proportion of each type of outlet identified in each state. In all three states, PPMVs represented the most frequently identified outlet type with antimalarials in stock on the day of the survey. The majority of outlets stocking antimalarials in Abia were PPMVs (94%), followed by pharmacies (2%), for-profit facilities (1%), not-for-profit facilities, informal outlets and laboratories (all <1%). In Kano, PPMVs made up 84% of the market, followed by pharmacies (9%), for-profit facilities (5%), informal outlets (1%), and not-for-profit facilities and informal outlets (<1%). The market composition in Lagos was more diverse, where PPMVs made up 56% of outlets stocking an antimalarial, followed by pharmacies (32%), for-profit facilities (7%), informal outlets (5%), and not-for-profit facilities (<1%).

1.2 Market Composition among outlets with malaria blood-testing

Figure 5. The distribution (proportion) of all outlet types with malaria blood testing available, by state

Among outlets with malaria blood-testing available on the day of the survey



Total outlets with malaria blood testing: Abia=32 Kano=603 Lagos=129

The market composition for malaria blood testing shows the proportion of all outlets with any malaria blood testing available on the day of the survey, by outlet type. In Abia State, the market for malaria blood testing was fairly evenly split across outlet types, with 34% being not-for-profit facilities, 26% for-profit facilities, 20%

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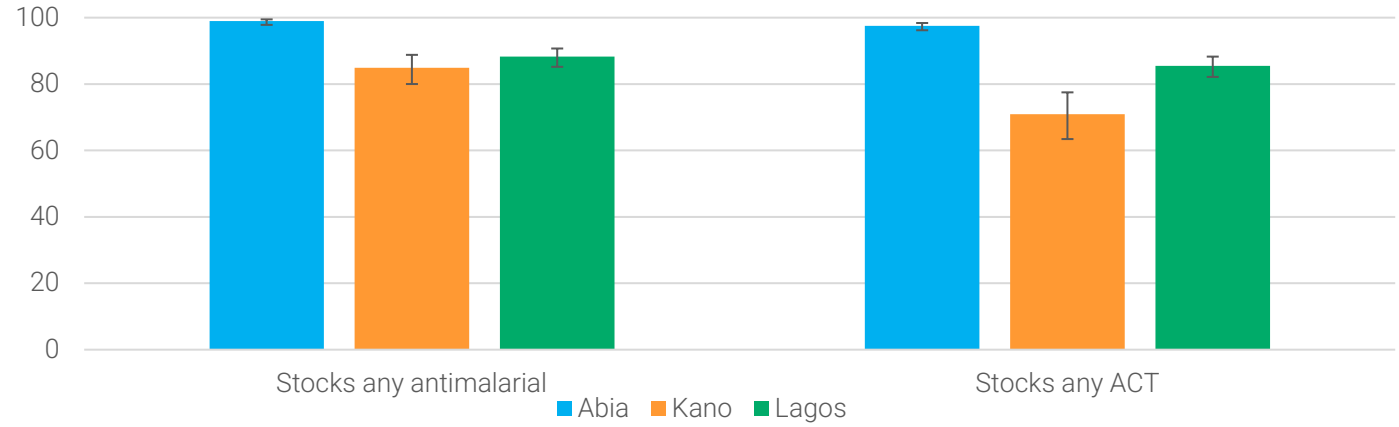
pharmacies, 16% PPMVs and 5% laboratories. In Kano State, 63% of the outlets with any testing available were PPMVs, followed by for-profit facilities (13%), laboratories (12%), pharmacies (10%), and not-for-profit and informal outlets (both 2%). In Lagos State, 58% of the outlets with any testing available were laboratories, followed by for-profit facilities (21%), pharmacies (16%), PPMVs (5%) and not-for-profit facilities (1%).

2 AVAILABILITY

2.1Availability of antimalarials in all screened outlets

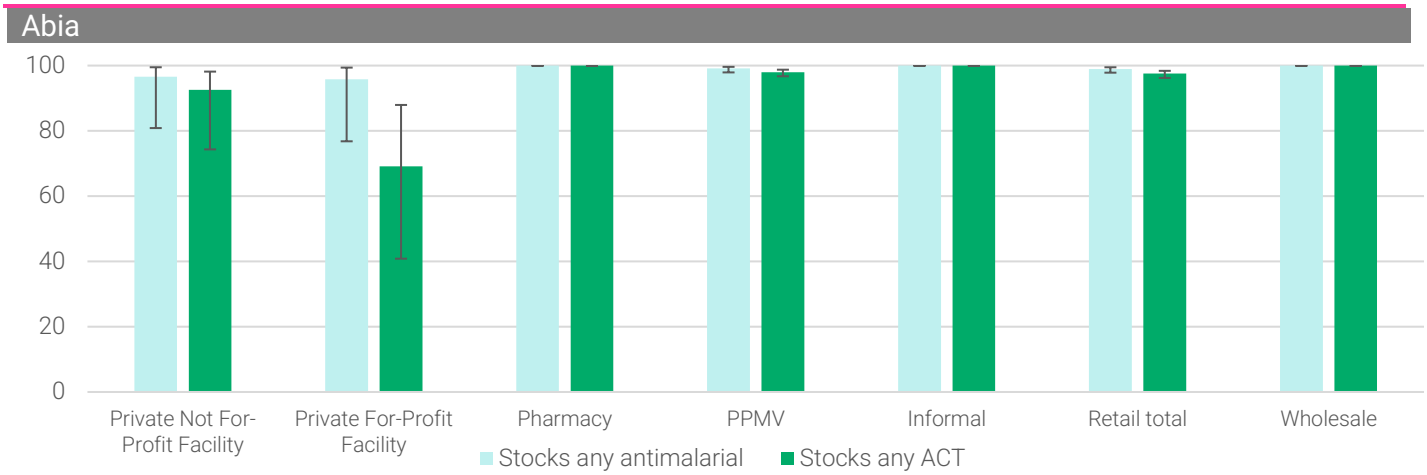
Figure 6. Proportion of all outlets enumerated that had any antimalarial in stock at the time of the survey visit, by state



Total outlets enumerated: Abia=1422 Kano=1716 Lagos=1048

In Abia State, 99% of 1422 retail and 29 wholesale screened outlets had any antimalarial in stock on the day of the study, while 98% had an ACT available. Among the 1716 retail and 20 wholesale outlets screened in Kano State, 85% and 71% had any antimalarial and any ACT available, respectively. In Lagos State, among the 1048 retail and 3 wholesale outlets screened, 88% and 85% had any antimalarial and any ACT available on the day of the study, respectively.

Figure 7. Proportion of all outlets enumerated that had any antimalarial in stock at the time of the survey visit, by outlet type for each state



Total outlets enumerated: Private not-for-profit=16 Private-for-profit=17 Pharmacy=52 PPMV=1323 Informal other=11 Retail total=1422 Wholesale=29

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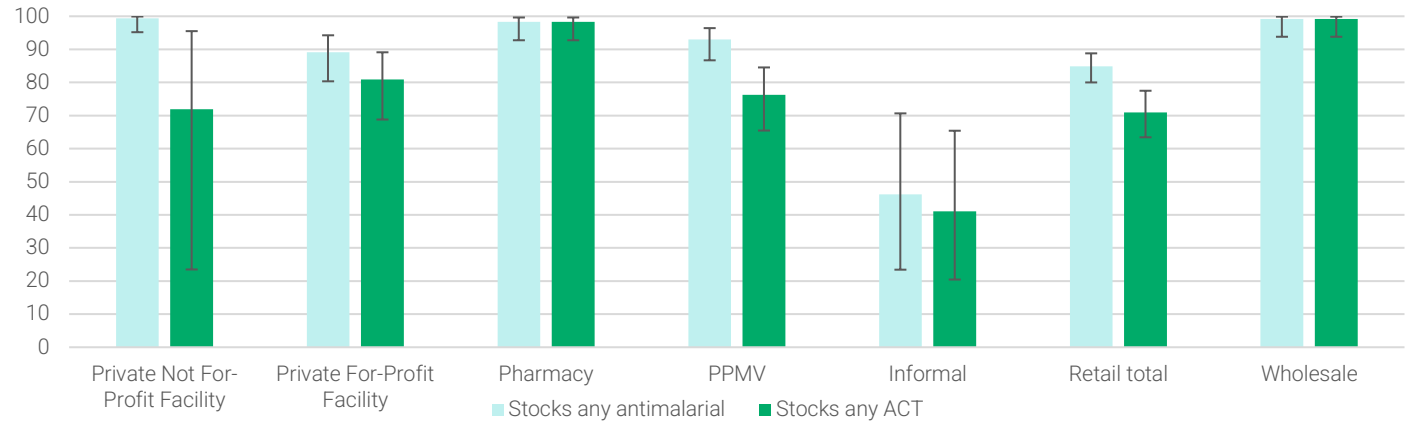
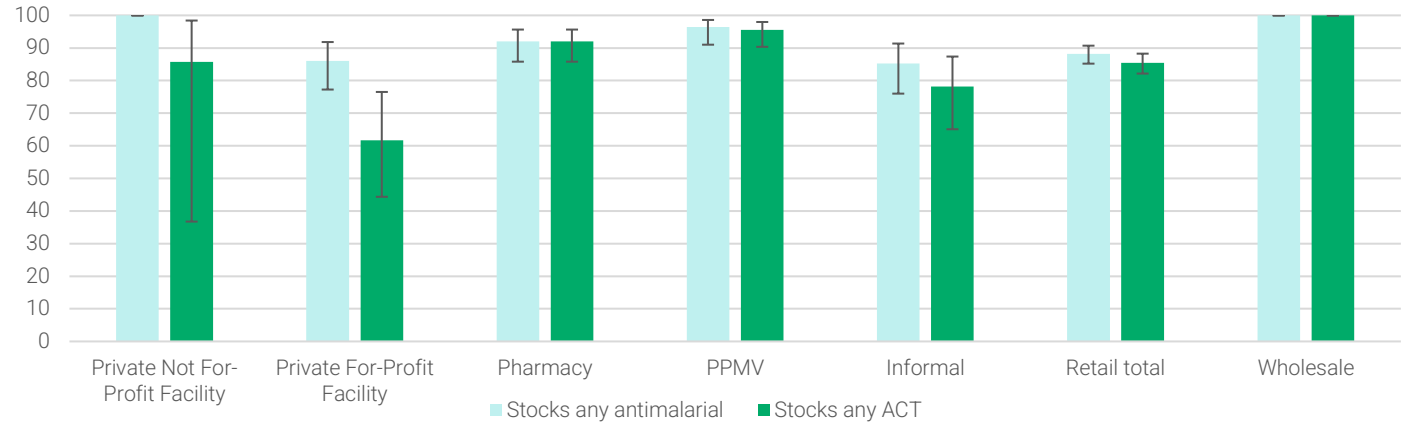
Kano



Total outlets enumerated: Private not-for-profit=10 Private-for-profit=98 Pharmacy=130 PPMV=1357 Informal other=53 Retail total=1716 Wholesale=20

Lagos



Total outlets enumerated: Private not-for-profit=3 Private-for-profit=80 Pharmacy=337 PPMV=500 Informal other=59 Retail total=1048 Wholesale=3

In Abia State, little variability was found in the availability of at least one antimalarial by outlet type, with any antimalarial availability ranging from 96% among private not for profit outlets, to 100% among screened pharmacies and informal outlets. ACT availability was also high, with the exception of private for-profit facilities, where only 69% of outlets had an ACT. Kano State had the lowest availability of any antimalarial or ACT among all screened outlets. Across all retail outlets, 85% stocked an antimalarial and 71% stocked an ACT on the day of the survey. These figures were 93% and 76% for PPMVs, respectively, while only 46% and 41% of informal outlets had these products available, respectively. Lagos State showed a similar pattern to Kano State, although generally had lower levels of antimalarial and ACT availability. 88% and 85% of retail outlets had any antimalarial or any ACT in stock. Among PPMVs these figures were 96.4% and 95.5%, respectively.

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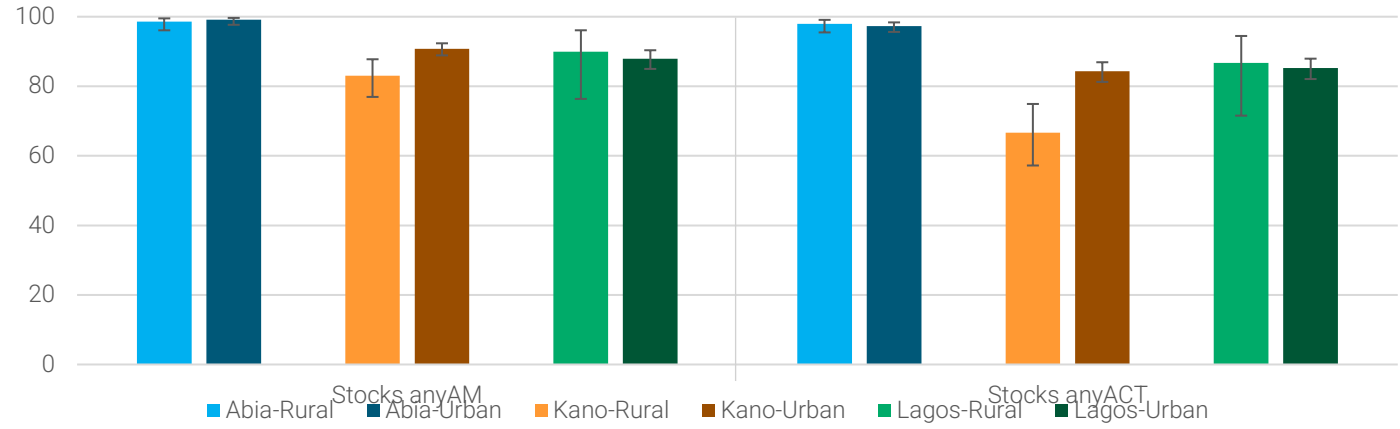
Figure 8. Proportion of all outlets enumerated that had any antimalarial in stock at the time of the survey visit, by state and urban/rural study areas

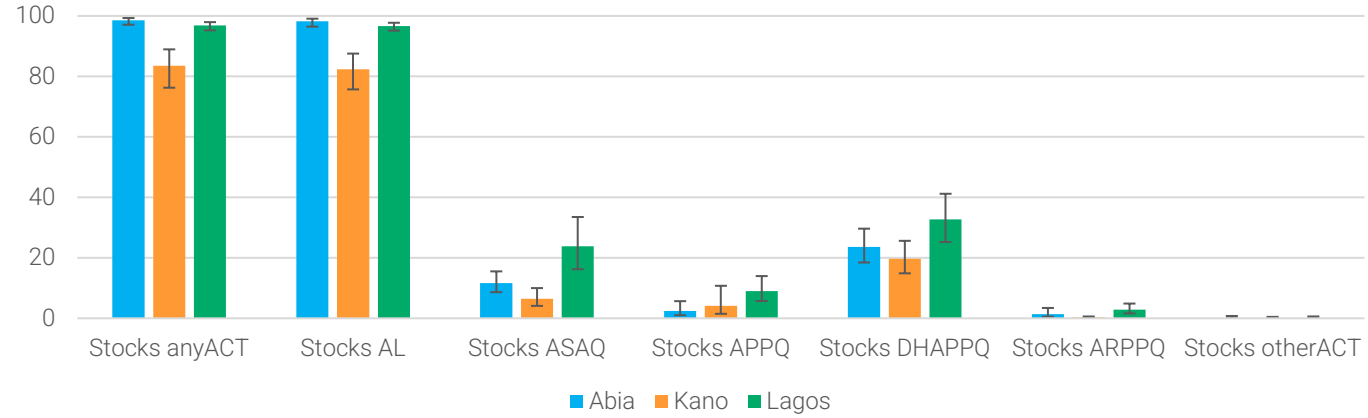


Total outlets enumerated: Abia-rural=352 Abia-urban=1070 Kano-rural=388 Kano-urban=1328 Lagos-rural=175 Lagos-urban=873

Similar levels of availability of any antimalarial and any ACT among all screened outlets were seen between urban and rural areas in Abia and Lagos (1 or 2 percentage points). In Kano, availability was higher in urban outlets. On the day of survey, 83% of rural and 91% of urban outlets stocked antimalarials and 67% rural and 84% urban stocked ACTs.

2.2 Availability of antimalarials among antimalarial-stocking outlets

Figure 9. Proportion of antimalarial-stocking outlets with any ACT in stock on the day of the visit by ACT type, by state



Total antimalarial stocking outlets: Abia=1408 Kano=1542 Lagos=916

Across all antimalarial-stocking private sector outlet types included in the study, 98%, 91% and 98% had any ACT available on the day of the survey and artemether lumefantrine (AL) was the most commonly available type of ACT, found in 98%, 90% and 98% of all AM-stocking outlets in Abia, Kano and Lagos, respectively. Dihydroartemisinin piperaquine (DHAPPQ) was available in 24%, 30% and 35% of all antimalarial-stocking private sector outlets in Abia, Kano and Lagos States, while artesunate amodiaquine (ASAQ) was available in 9%, 10% and 26% of outlets in those three states.

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Figure 10. Proportion of antimalarial-stocking outlets with any ACT in stock on the day of the visit, by outlet type

AL was the most stocked ACT across all outlet types and states, with its availability very similar to overall ACT availability levels, ranging from 90% of all antimalarial stocking retail outlets in Kano State to 98% in Abia and Lagos. DHAPPQ was the second most found ACT, available in 24%,30% and 35% of all AM-stocking retail

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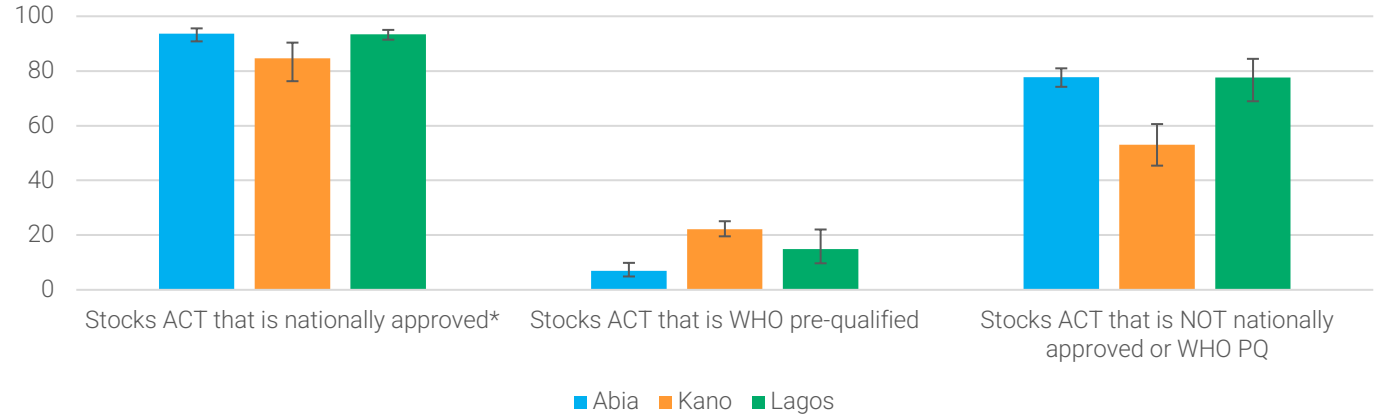
outlets in Abia, Kano and Lagos States, respectively. In all three states, pharmacies had the highest levels of ACT diversity, with 41%, 17%, 69% and 11% of pharmacies in Abia state stocking ASAQ, artemisinin piperaquine (APPQ), DHAPPQ and arterolane piperaquine, respectively.

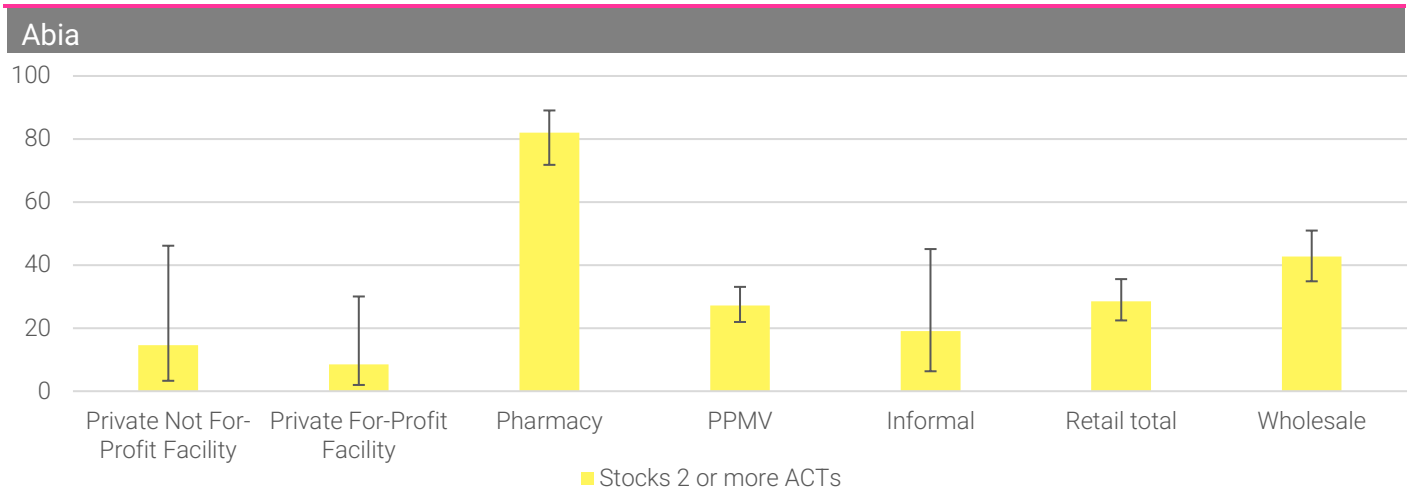
Figure 11. Proportion of antimalarial-stocking outlets with nationally approved and WHO pre-qualified ACTs in stock on the day of visit, overall for each state



Total antimalarial stocking outlets: Abia=1408 Kano=1542 Lagos=916

*Nationally approved ACTs are defined here as those that appear in the NAFDAC Green Book.
WHO pre-qualified or WHO PQ products are those which have received WHO prequalification. In all three states, over 90% of antimalarial stocking private sector outlets had at least one nationally approved ACT in stock on the day of the survey. Rates of QA ACT availability were lower, ranging from 6% in Abia to 17% in Kano. A majority of outlets had ACTs that were neither nationally approved, nor WHO prequalified in stock, ranging from 64% in Kano to 83% in Lagos.

Figure 12. Proportion of antimalarial-stocking outlets with 2 or more ACTs in stock on the day of visit, by outlet type



Total outlets enumerated: Private not-for-profit=15 Private-for-profit=16 Pharmacy=52 PPMV=1312 Informal other=11 Retail total=1408 Wholesale=29

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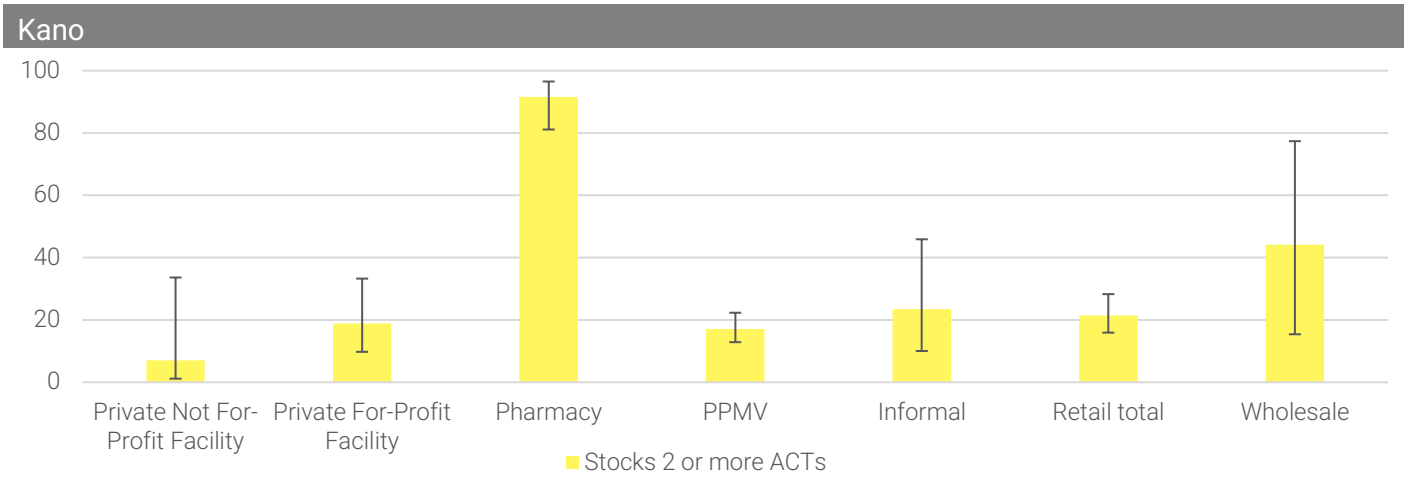
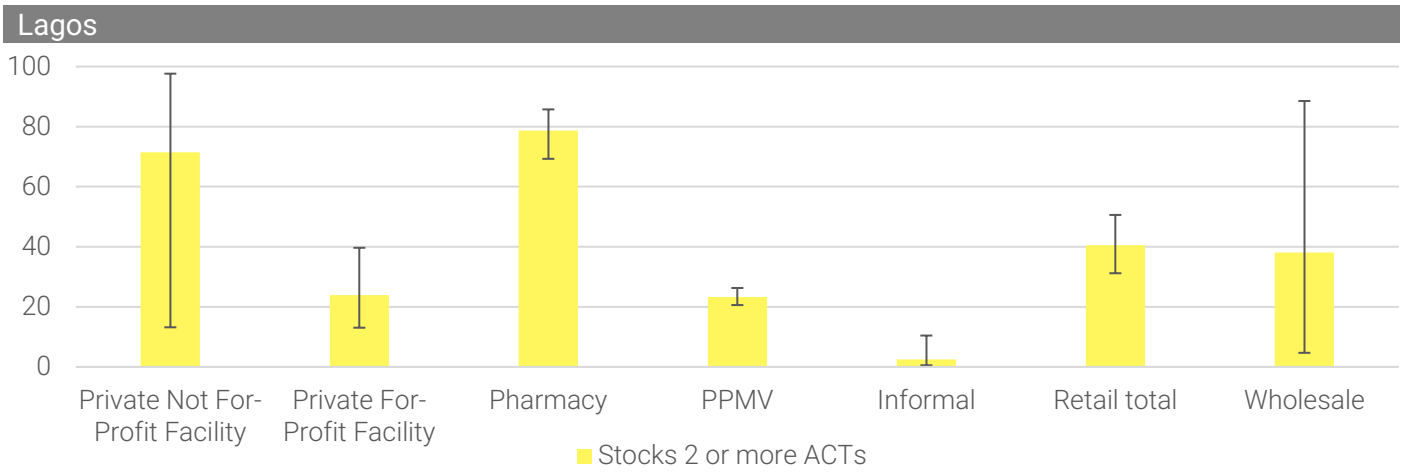


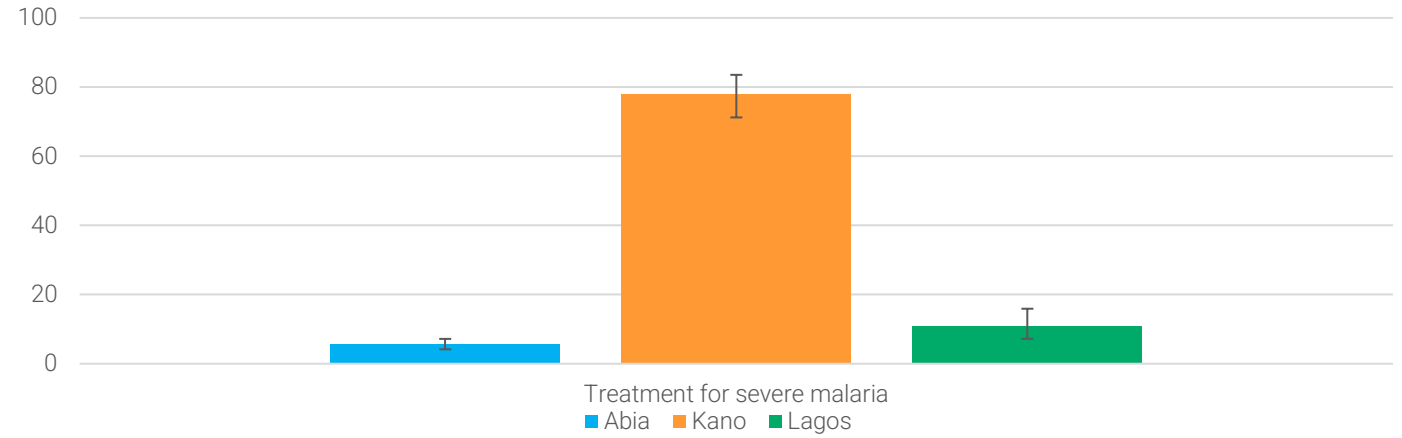
Total outlets enumerated: Private not-for-profit=9 Private-for-profit=79 Pharmacy=125 PPMV=1293 Informal other=35 Retail total=1542 Wholesale=19



Total outlets enumerated: Private not-for-profit=3 Private-for-profit=68 Pharmacy=309 PPMV=500 Informal other=59 Retail total=916 Wholesale=3

The percentage of private sector antimalarial-stocking outlets with two or more types of ACT available varied by state and outlet type. In Abia this ranged from 2% of private not-for-profit facilities to 72% of pharmacies. In Kano this ranged from 27% of PPMVs to 80% of pharmacies. In Lagos this ranged from 9% of not-for-profit facilities to 83% of pharmacies.

Figure 13. Proportion of antimalarial-stocking outlets with treatment for severe malaria in stock on the day of visit, overall for each state



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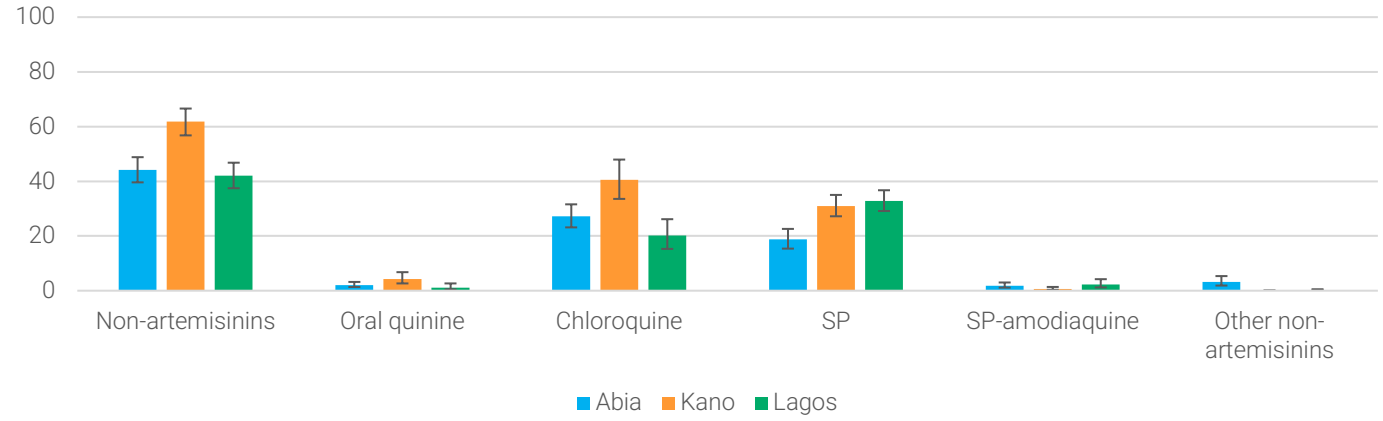
Total antimalarial stocking outlets: Abia=1408 Kano=1542 Lagos=916

The availability of any treatment for severe malaria among private sector antimalarial-stocking outlets varied by state. In Kano, 76% of all antimalarial-stocking private sector outlets had at least one treatment for severe malaria in stock, while just 4% and 11% of outlets in Abia and Lagos had any severe malaria treatment available. This difference appears to be mainly due to different levels of severe malaria treatment availability in PPMVs in the three states.

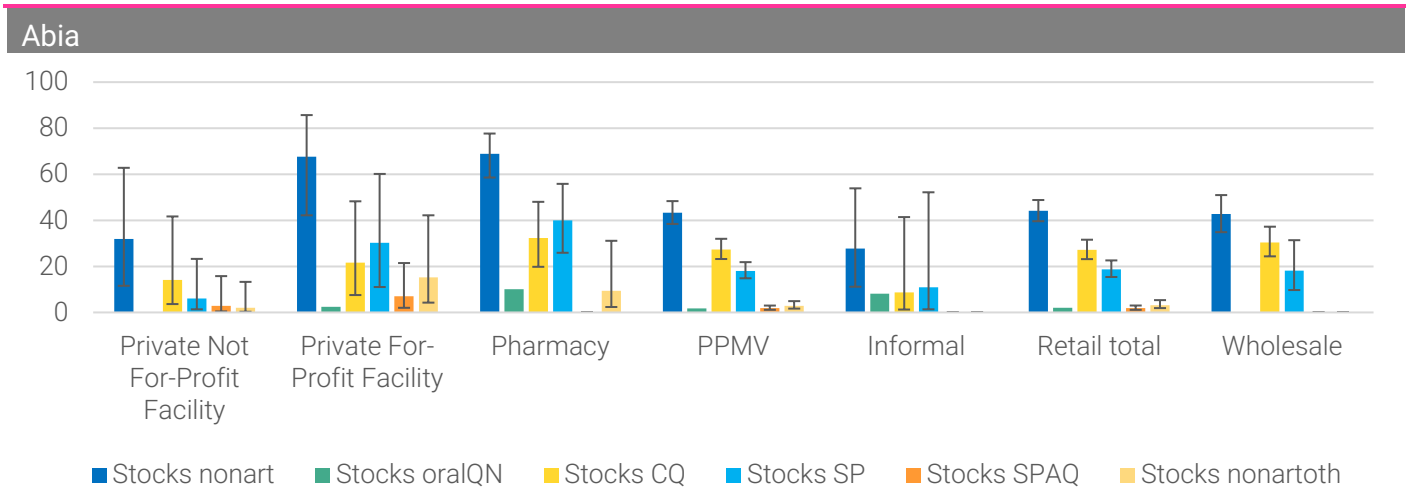
Figure 14. Proportion of antimalarial-stocking outlets with non-artemisinins in stock on the day of visit, overall for each state



SP= Sulfadoxine-pyrimethamine
Total antimalarial stocking outlets: Abia=1408 Kano=1542 Lagos=916

Among outlets with antimalarials in stock, non-artemisinins were available in 44%, 55% and 42% in Abia, Kano and Lagos states. Chloroquine and sulfadoxine pyrimethamine (SP) were the most commonly available, found in 27% and 18% of outlets in Abia, 28% and 36% in Kano, and 21% and 31% in Lagos, respectively

Figure 15. Proportion of antimalarial-stocking outlets with non-artemisinins in stock on the day of visit, by outlet type



Nonart= non-artemisinins; oralQN= Oral quinine; CQ= Chloroquine; SP= Sulfadoxine-pyrimethamine; SPAQ=Sulfadoxine-pyrimethamine-amodiaquine; nonartoth= other non-artemisinins
Total outlets enumerated: Private not-for-profit=15 Private-for-profit=16 Pharmacy=52 PPMV=1312 Informal other=11 Retail total=1408 Wholesale=29

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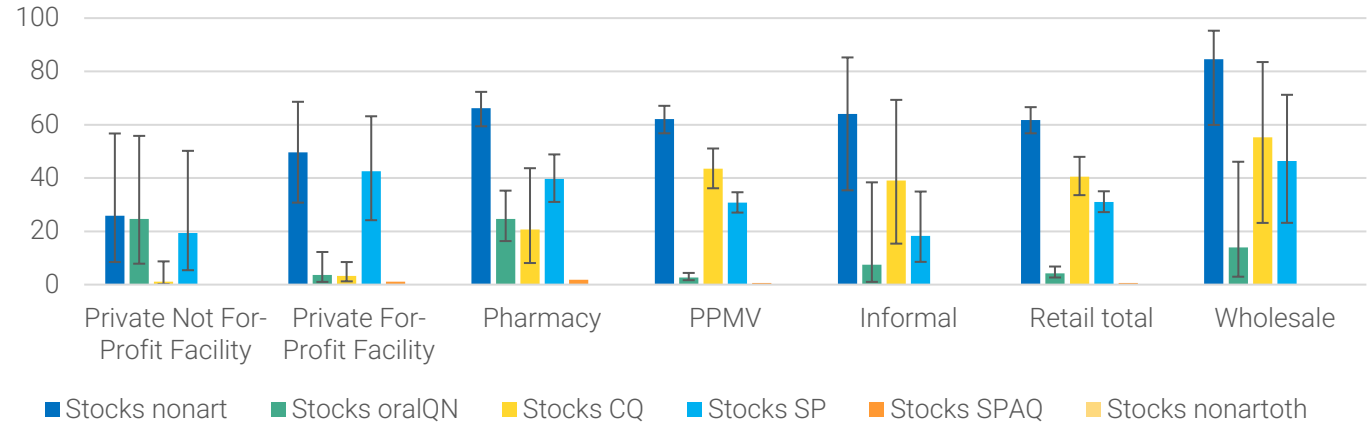
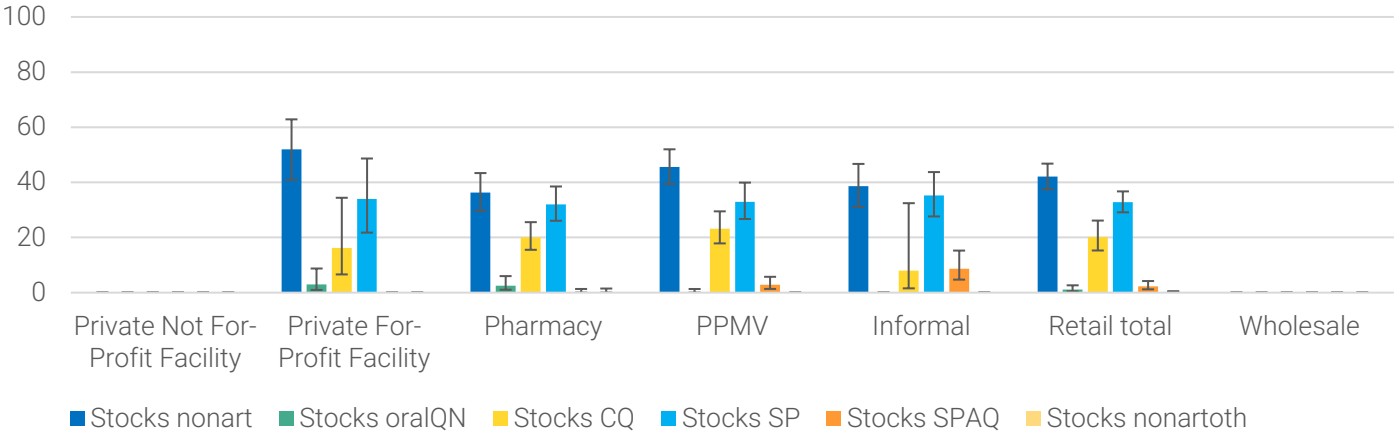
Kano



Nonart= non-artemisinins; oralQN= Oral quinine; CQ= Chloroquine; SP= Sulfadoxine-pyrimethamine; SPAQ=Sulfadoxine-pyrimethamine-amodiaquine; nonartoth= other non-artemisinins
Total outlets enumerated: Private not-for-profit=9 Private-for-profit=79 Pharmacy=125 PPMV=1293 Informal other=35 Retail total=1542 Wholesale=1

Lagos



Nonart= non-artemisinins; oralQN= Oral quinine; CQ= Chloroquine; SP= Sulfadoxine-pyrimethamine; SPAQ=Sulfadoxine-pyrimethamine-amodiaquine; nonartoth= other non-artemisinins
Total outlets enumerated: Private not-for-profit=3 Private-for-profit=68 Pharmacy=309 PPMV=500 Informal other=59 Retail total=916 Wholesale=3

In Kano and Lagos states, SP was the most commonly available non-artemisinin product across all outlet types. In Kano, SP availability ranged from 35% in for-profit facilities to 53% in not-for-profit facilities, while in Lagos SP availability was slightly lower across outlet types and found in 25% of all formal private sector outlets, 24% of informal outlets, and 30% of PPMVs. In Abia, chloroquine was more common than SP in both types of facility and in PPMVs, and across the private retail sector as a whole chloroquine was stocked by 27% of outlets.

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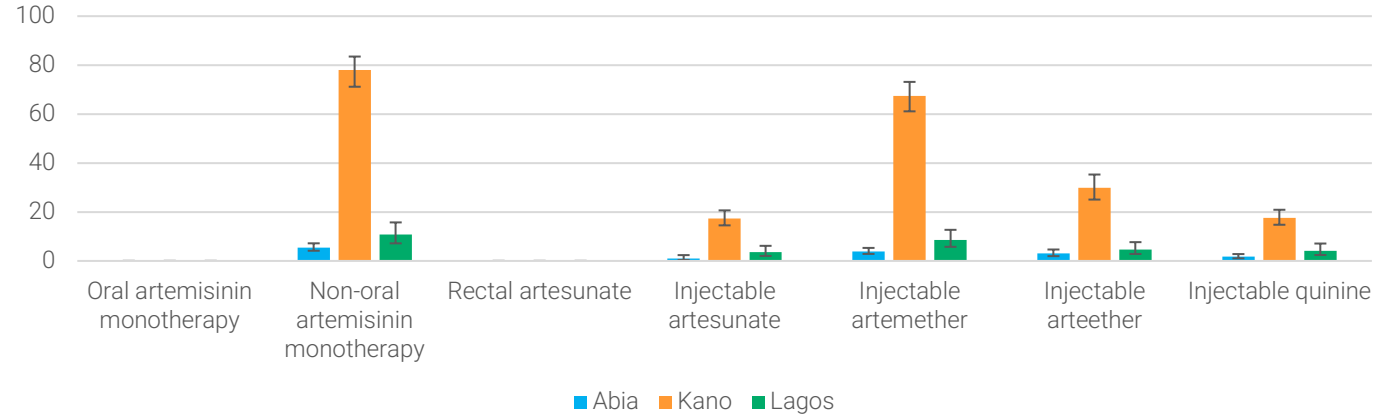
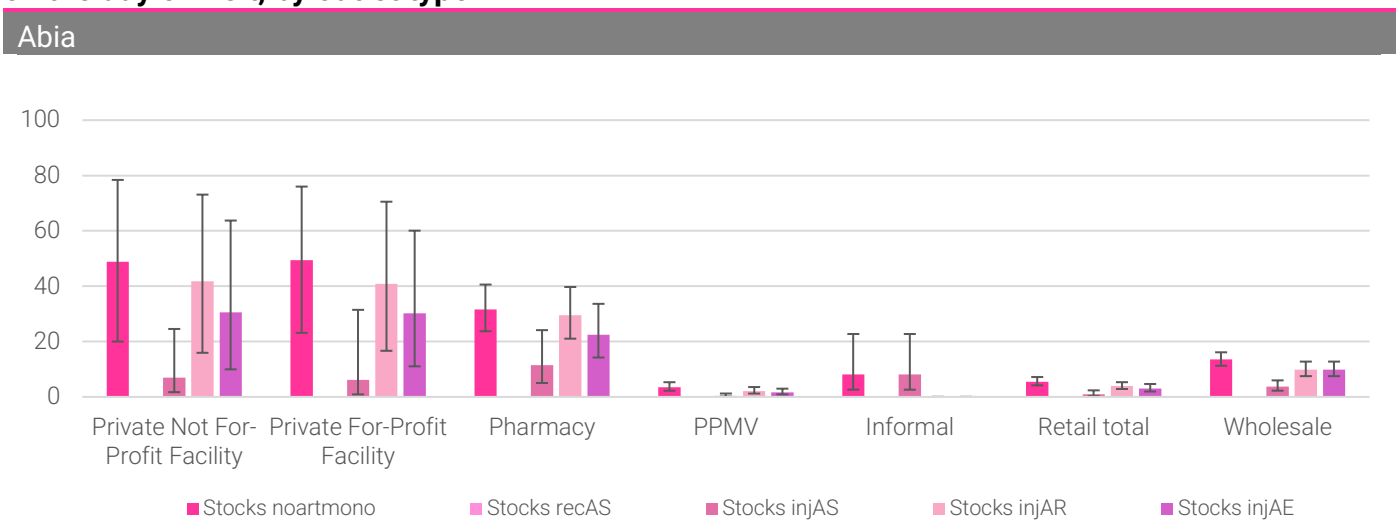
Figure 16. Proportion of antimalarial-stocking outlets with artemisinin monotherapies in stock on the day of visit, overall for each state



Total antimalarial stocking outlets: Abia=1408 Kano=1542 Lagos=916

The 2024 ACTwatch Lite Nigeria study did not find any oral artemisinin monotherapies or rectal artesunate in the private sectors of the three study states. Injectable artemisinins were found in a large proportion of private sector antimalarial-stocking outlets in Kano, where 76% of outlets had at least one in stock. Availability of these products was lower in Abia and Lagos (4% and 11%, respectively). The most commonly available product of this type was injectable artemether, stocked by 3%, 66% and 9% of all private sector outlets in Abia, Kano and Lagos states, respectively.

Figure 17. Proportion of antimalarial-stocking outlets with artemisinin monotherapies in stock on the day of visit, by outlet type



Noartmono= Any non-oral artemisinin monotherapy; recAS= rectal artesunate; injAS= injectable artesunate; injAR= injectable artemether; injAE= injectable arteether
Total outlets enumerated: Private not-for-profit=15 Private-for-profit=16 Pharmacy=52 PPMV=1312 Informal other=11 Retail total=1408 Wholesale=2

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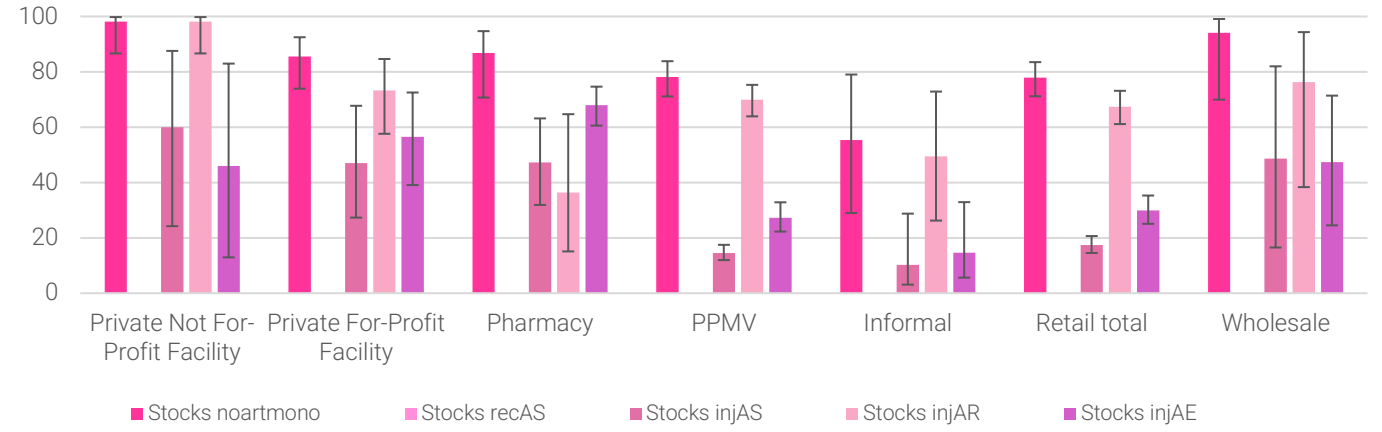
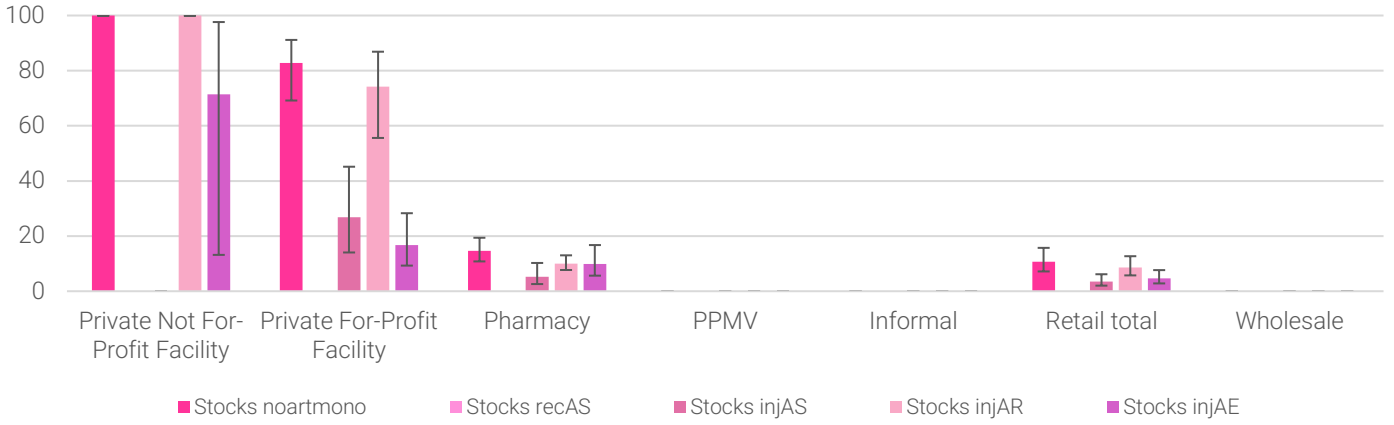
Kano



Noartmono= Any non-oral artemisinin monotherapy; recAS= rectal artesunate; injAS= injectable artesunate; injAR= injectable artemether; injAE= injectable arteether
Total outlets enumerated: Private not-for-profit=9 Private-for-profit=79 Pharmacy=125 PPMV=1293 Informal other=35 Retail total=1542 Wholesale=19

Lagos



Noartmono= Any non-oral artemisinin monotherapy; recAS= rectal artesunate; injAS= injectable artesunate; injAR= injectable artemether; injAE= injectable arteether
Total outlets enumerated: Private not-for-profit=3 Private-for-profit=68 Pharmacy=309 PPMV=482 Informal other=54 Retail total=916 Wholesale=3

The availability of injectable artemisinins was higher in for-profit and not-for-profit facilities than in other private sector outlet types in Abia and Lagos states. “In Kano, injectable artemether was widely availability across outlet types, with similar levels of availability in facilities, pharmacies and PPMVs (ranging between 61% and 74% in pharmacies and not-for-profit facilities, respectively).

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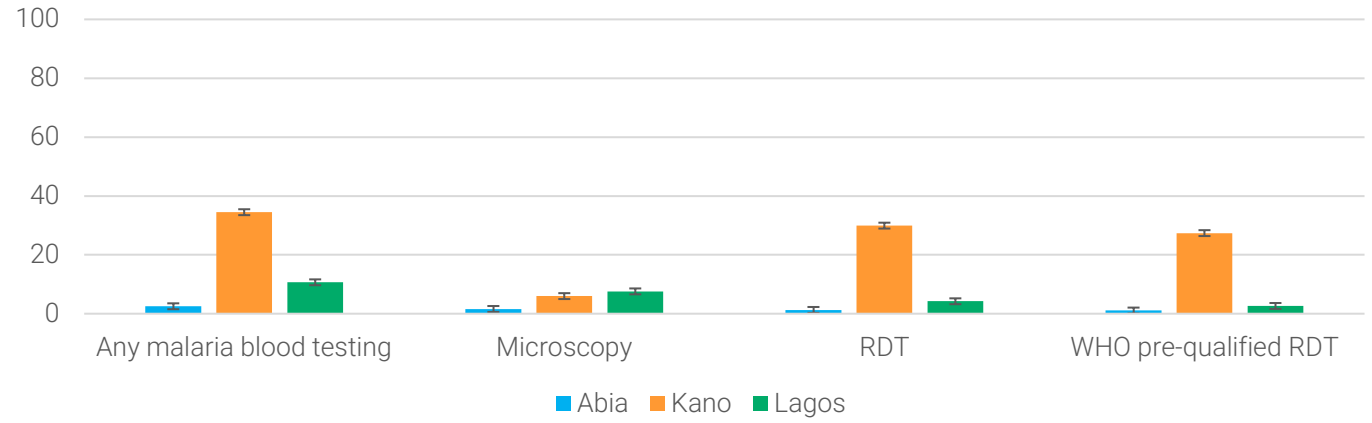
2.3 Availability of malaria blood testing in all screened outlets

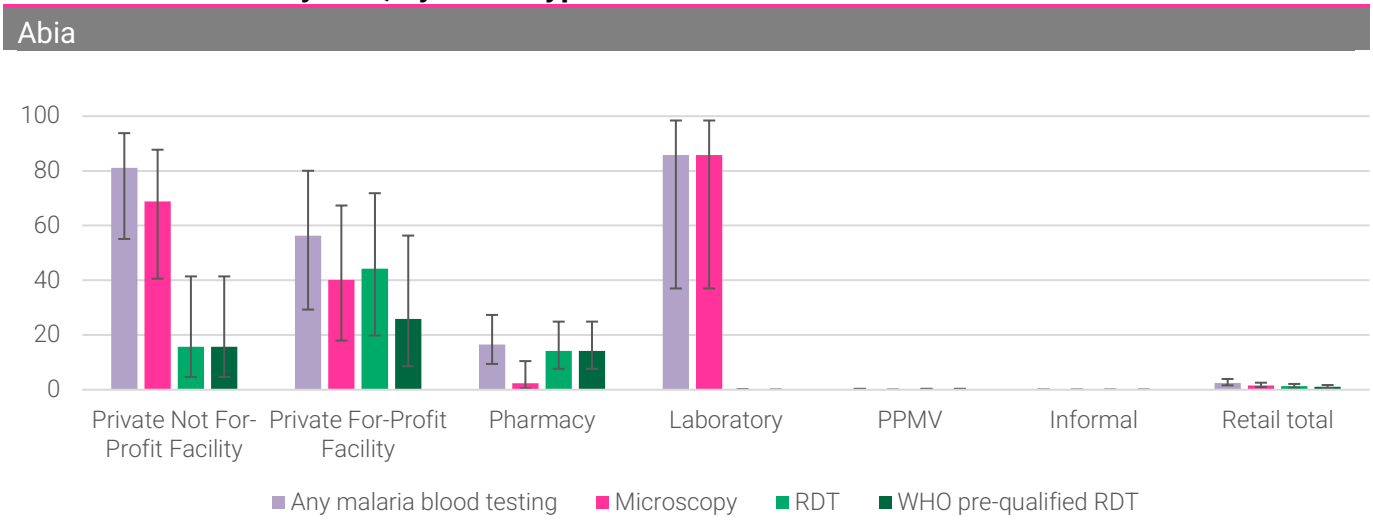
Figure 18. Proportion of all outlets enumerated that had any malaria blood testing available at the time of the survey visit, by state



Total outlets enumerated: Abia=1422 Kano=1716 Lagos=1048

The availability of any blood testing (microscopy or RDTs) among all screened outlets varied geographically. In Abia State, 2% of screened outlets had any blood testing available on the day of the survey (1% had microscopy, and 1% had RDTs available). In Kano State, 36% of outlets had any blood testing available (8% had microscopy, 31% had RDTs). In Lagos State, 13% of outlets had any testing available (9% had microscopy, 5% had RDTs).

Figure 19. Proportion of all outlets enumerated that had any malaria blood testing available at the time of the survey visit, by outlet type for each state



Total outlets enumerated: Private not-for-profit=16 Private-for-profit=17 Pharmacy=52 PPMV=1323 Informal other=11 Retail total=1422 Wholesale=29

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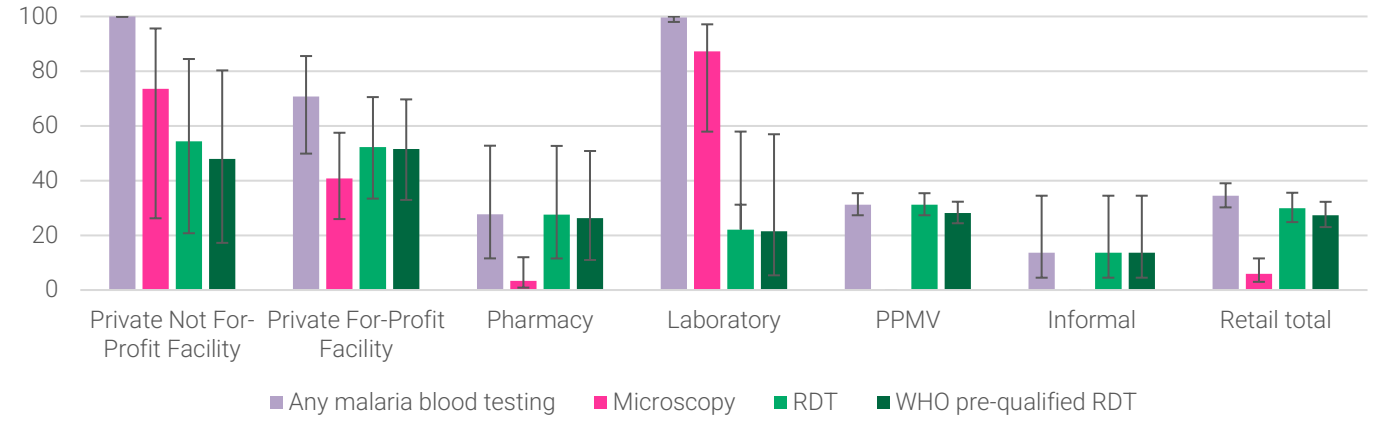
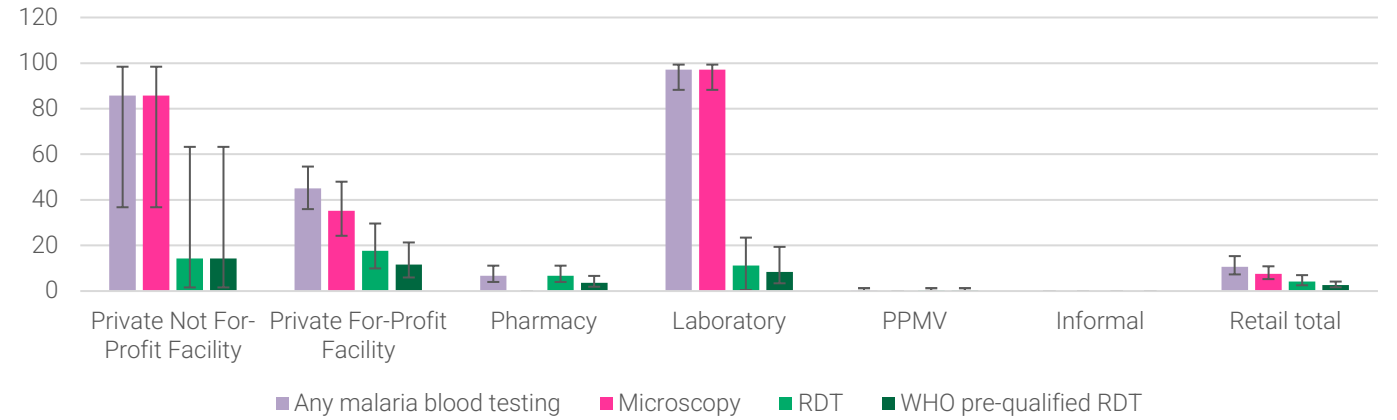
Kano



Total outlets enumerated: Private not-for-profit=10 Private-for-profit=98 Pharmacy=130 PPMV=1357 Informal other=53 Retail total=1716 Wholesale=20

Lagos



Total outlets enumerated: Private not-for-profit=3 Private-for-profit=80 Pharmacy=337 PPMV=500 Informal other=59 Retail total=1048 Wholesale=3

Among all screened outlets, the availability of malaria microscopy and RDTs varied considerably by state and outlet type. Within each state, private for-profit and private not-for-profit facilities and laboratories had the highest levels of testing available. In Abia, any testing was available in 72%, 46% and 45% of these outlet types, respectively. In Kano, any testing was available in 100%, 85% and 96% of these outlet types, respectively. In Lagos, testing was available in 55%, 35% and 96% of these outlet types, respectively.

Blood testing availability was lower in PPMVs, pharmacies and the informal sector in all three states. No microscopy was found in PPMVS, with only a small percentage of pharmacies in Kano reporting this form of testing (4%). The proportion of outlets offering RDTs and WHO pre-qualified RDTs was almost the same across outlet types. PPMVs in Kano had the highest rates of RDT availability (29%), while just 1% and less than 1% had RDTs available Lagos and Abia, respectively.

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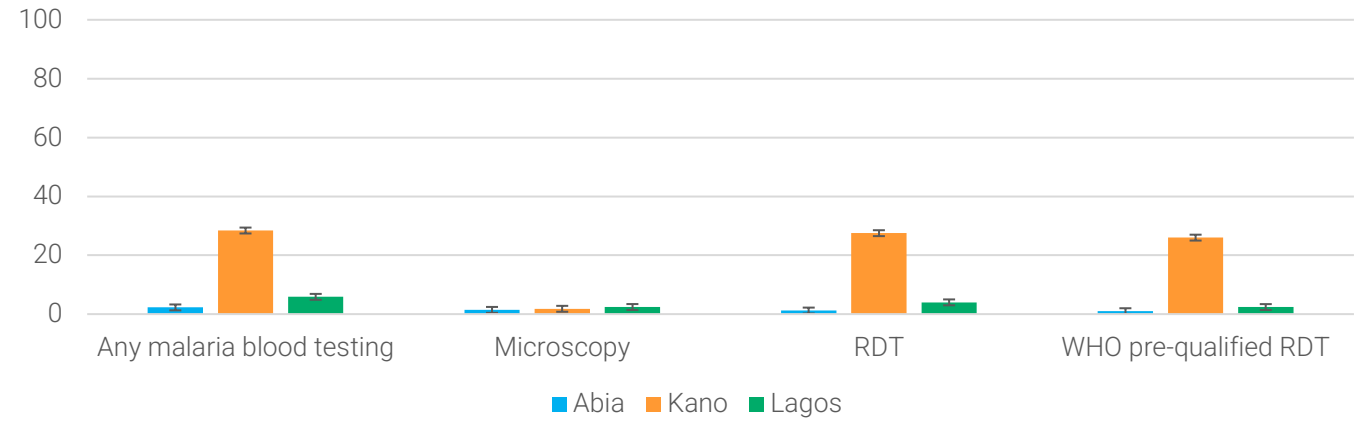
2.4 Availability of malaria blood testing among antimalarial-stocking outlets

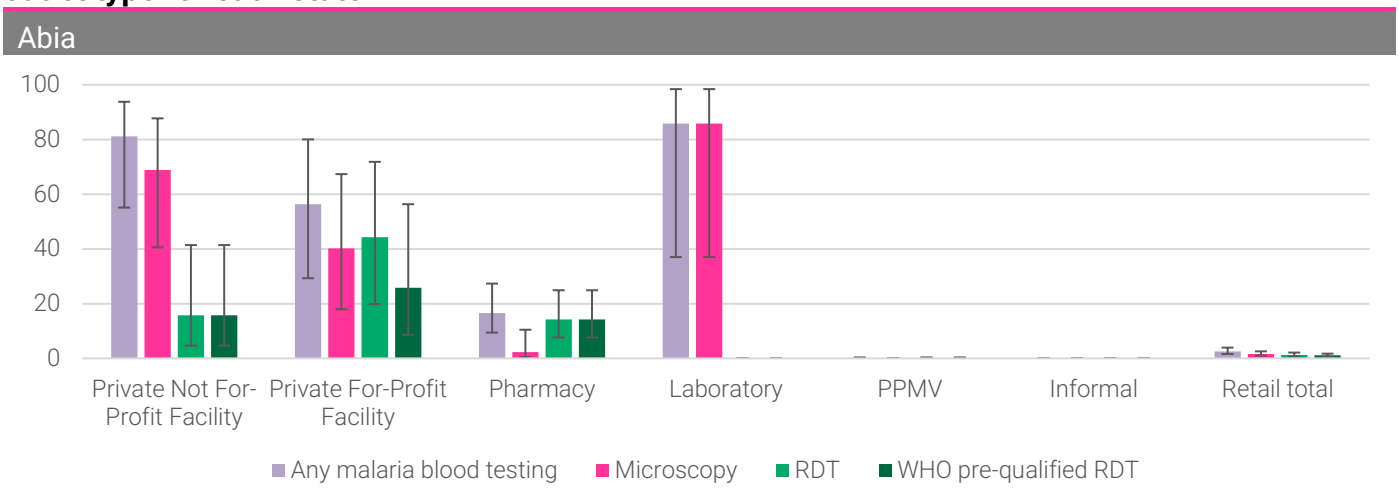
Figure 20. Proportion of antimalarial-stocking outlets that had malaria blood testing available on the day of the survey visit, among all outlets surveyed with one or more antimalarials in stock, by state



Total antimalarial stocking outlets: Abia=1395 Kano=1456 Lagos=909

Blood testing (microscopy or RDT) availability among outlets stocking at least one antimalarial on the day of the survey was higher in Kano State (30%) than in Abia or Lagos states (2% and 5%, respectively). Across all three states, microscopy availability was low in antimalarial stocking outlets (ranging from 1% in Abia to 3% in Kano). RDTs made up the majority of malaria testing products that were available in antimalarial stocking outlets, and were found in 1%, 4% and 29% of outlets in Abia, Lagos and Kano states.

Figure 21. Proportion of antimalarial-stocking outlets that had malaria blood testing available on the day of the survey visit, among all outlets surveyed with one or more antimalarials in stock, by outlet type for each state



Total outlets enumerated: Private not-for-profit=16 Private-for-profit=17 Pharmacy=52 PPMV=1323 Informal other=11 Retail total=1422 Wholesale=29

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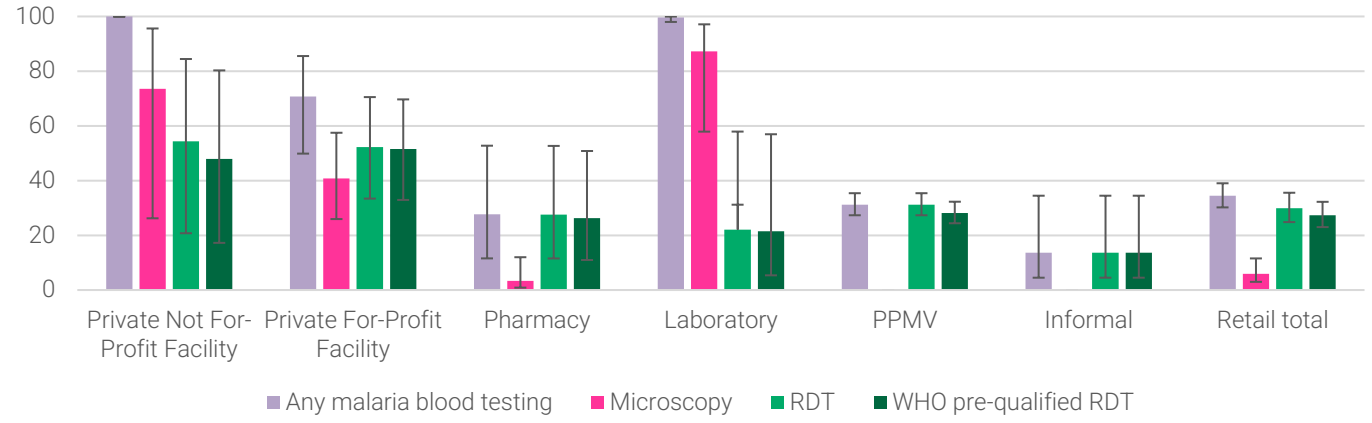
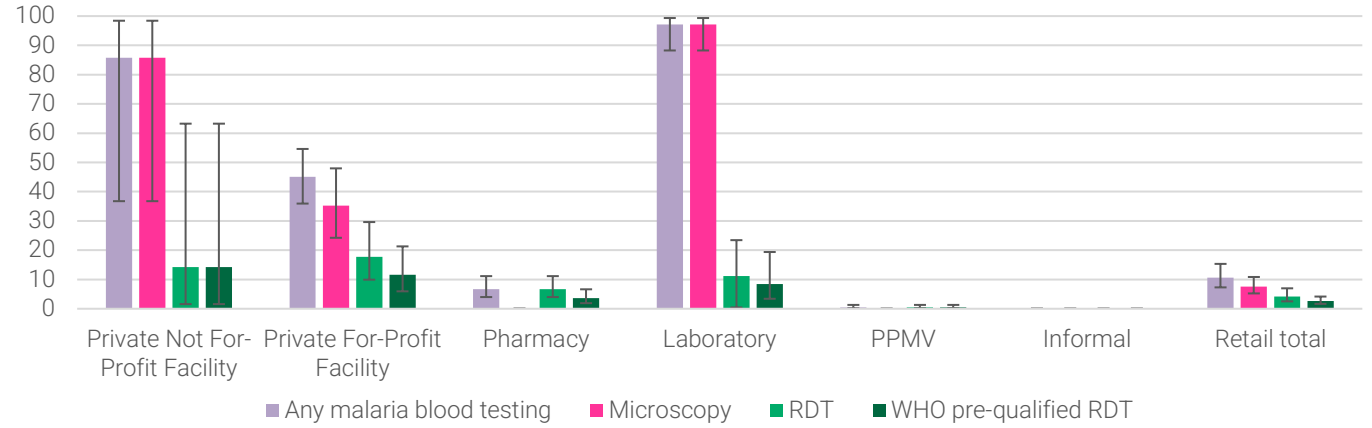
Kano



Total outlets enumerated :Private not-for-profit=10 Private-for-profit=98 Pharmacy=130 PPMV=1357 Informal other=53 Retail total=1716 Wholesale=20

Lagos



Total outlets enumerated: Private not-for-profit=3 Private-for-profit=80 Pharmacy=337 PPMV=500 Informal other=59 Retail total=1048 Wholesale=3

Among all screened outlets, the availability of malaria microscopy and RDTs varied considerably by state and outlet type. Within each state, private for-profit and private not-for-profit facilities and laboratories had the highest levels of testing available. In Abia, any testing was available in 72%, 46% and 45% of these outlet types, respectively. In Kano, any testing was available in 100%, 85% and 96% of these outlet types, respectively. In Lagos, testing was available in 55%, 35% and 96% of these outlet types, respectively.

Blood testing availability was lower in PPMVs, pharmacies and the informal sector in all three states. No microscopy was found in PPMVS, with only a small percentage of pharmacies in Kano reporting this form of testing (4%). The proportion of outlets offering RDTs and WHO pre-qualified RDTs was almost the same across outlet types. PPMVs in Kano had the highest rates of RDT availability (29%), while just 1% and less than 1% had RDTs available Lagos and Abia, respectively.

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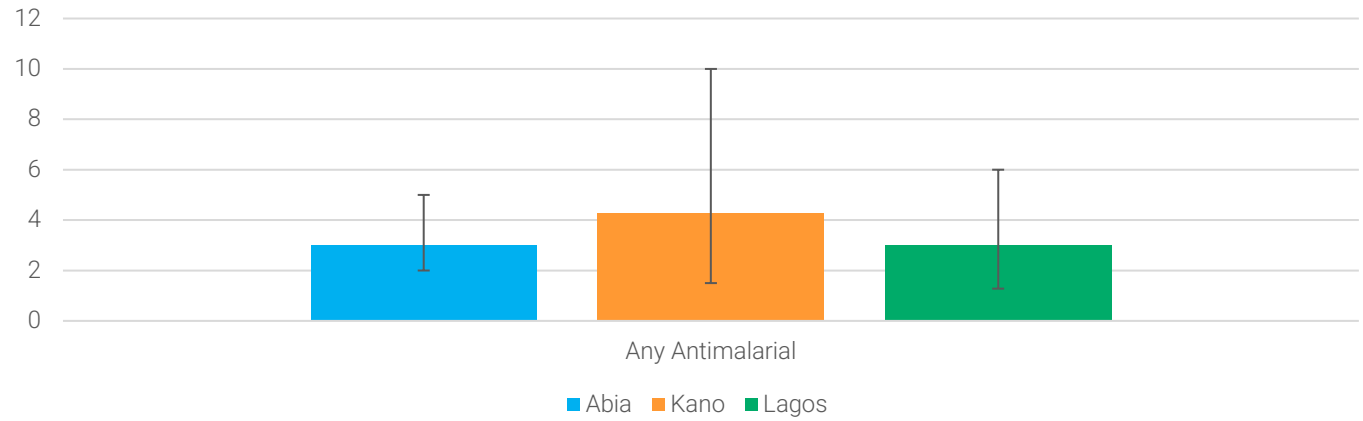
3 VOLUMES SOLD

3.1 Median sales volume of antimalarial AETDs

Figure 22. Median number of antimalarial AETDs sold in the week preceding the survey per outlet, of any outlets stocking antimalarials, overall for each state

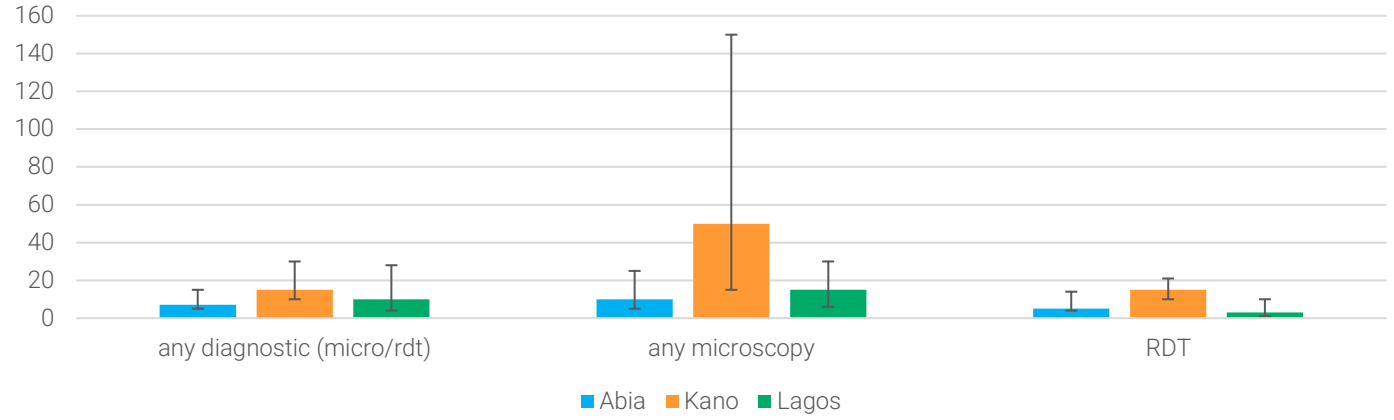


Total products audited: Abia=7971 Kano=9314 Lagos=5264

Across the three states, among outlets with any antimalarials in stock on the day of the survey, the median number of AETDs of any antimalarial sold in the week preceding was 3 in Abia and Lagos, and 4 in Kano. Among outlets with AL in stock, the median number of AETDs of AL sold in the previous week was 3 in Abia and Lagos and 5 in Kano. Among SP-stocking outlets, the median number of AETDs of SP sold in the previous week was 8 in Kano, 3 in Abia and 2 in Lagos.

3.2 Median sales volume of malaria blood tests

Figure 23. Median number of malaria blood tests conducted/ sold in the week preceding the survey, overall for each state



Total products audited: Abia=33 Kano=681 Lagos=120

The median number of malaria tests distributed/conducted in the previous 7 days, among all outlets with malaria testing was 6 in Abia, 12 in Kano and 9 in Lagos States. Among any outlets with microscopy available, the median number of malaria microscopy services provided was 6, 20 and 10 in Abia, Kano and Lagos, respectively. Among outlets with any RDTs available, median sales volumes were 5, 10 and 4 in the three states, respectively.

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4 MARKET SHARE

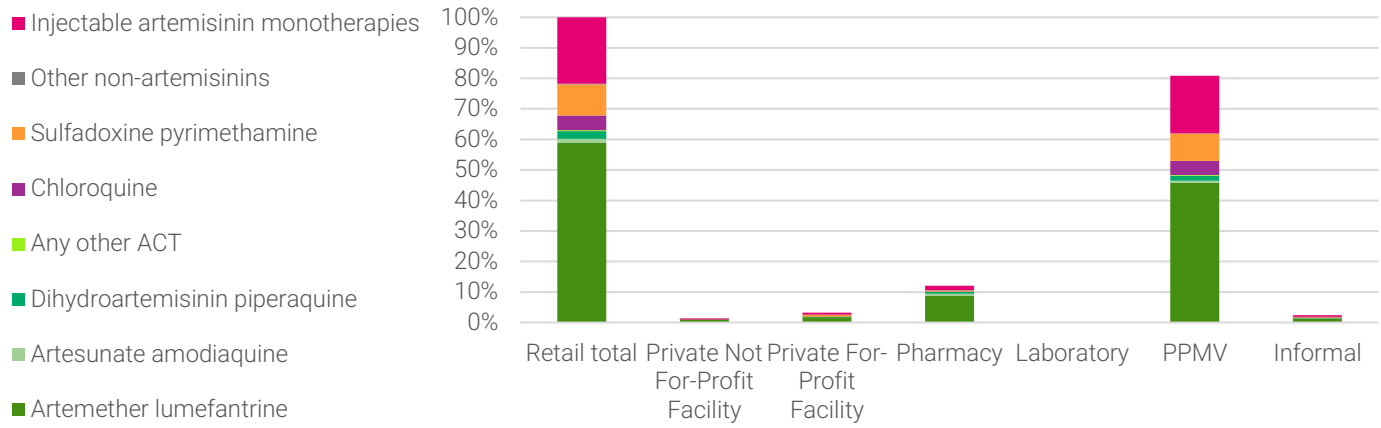
4.1 Market share for antimalarials

Figure 24. Proportion of AETD reportedly sold or distributed in the previous week by outlet type and antimalarial type among all AETDs sold/distributed in the previous week.

Abia

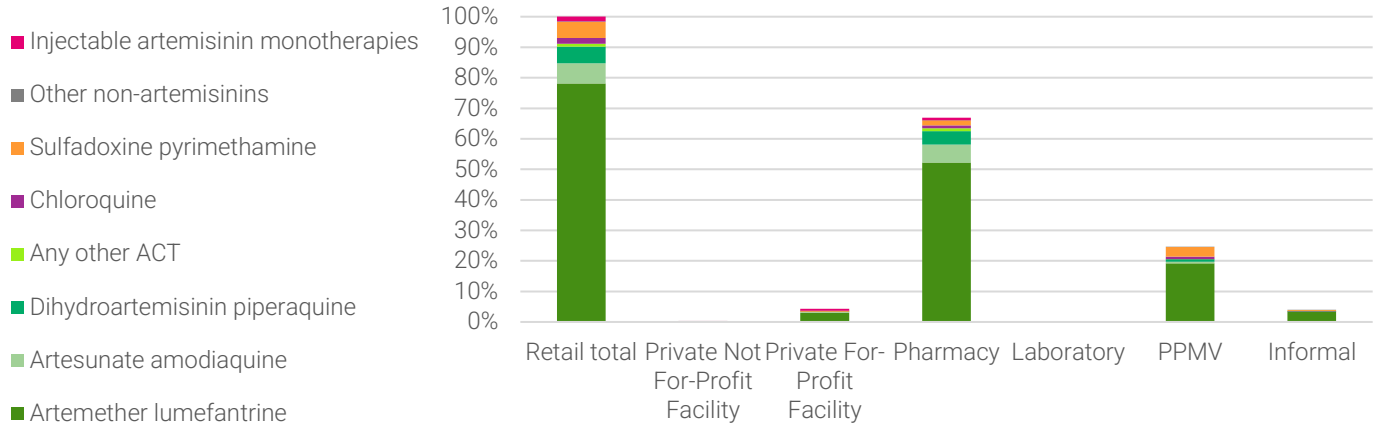
Total products: Private not-for-profit=59 Private-for-profit=58 Pharmacy=808 Laboratory=8 PPMV=6970 Informal other=56

Kano



Total products: Private not-for-profit=71 Private-for-profit=384 Pharmacy=1476 Laboratory=3 PPMV=7191 Informal other=182

Lagos



Total products: Private not-for-profit=13 Private-for-profit=228 Pharmacy=2561 Laboratory=0 PPMV=2285 Informal other=175

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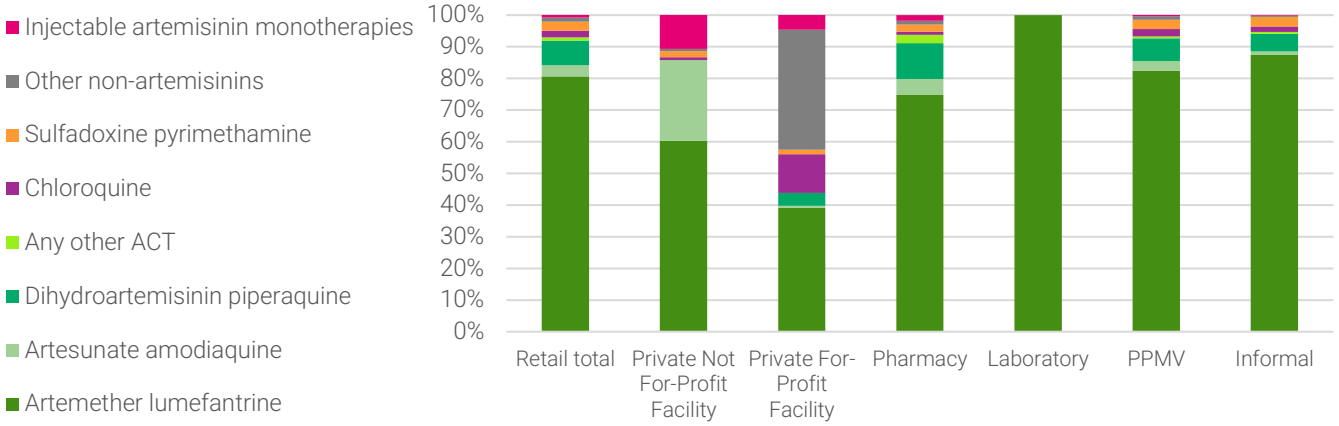
In Abia State, 81% of all antimalarials distributed in the private retail sector in the previous week were sold in PPMVs, 16 % were sold in pharmacies, 2% in the informal sector, with less than 1% sold in each of private for-profit, and not-for-profit facilities and laboratories. In Kano State, 74% of all antimalarials distributed in the private retail sector in the week preceding the survey were sold in PPMVs, 16% in pharmacies, 5% in for-profit facilities, 2% in the informal sector, 1% in not-for-profit facilities and 0% in laboratories. In Lagos State, 64% of all antimalarials distributed through the private sector in the previous week were sold in pharmacies, 29% in PPMVs, 5% in for-profit facilities, 2% in in the informal sector, less than 1% in not-for-profit facilities and 0% in laboratories.

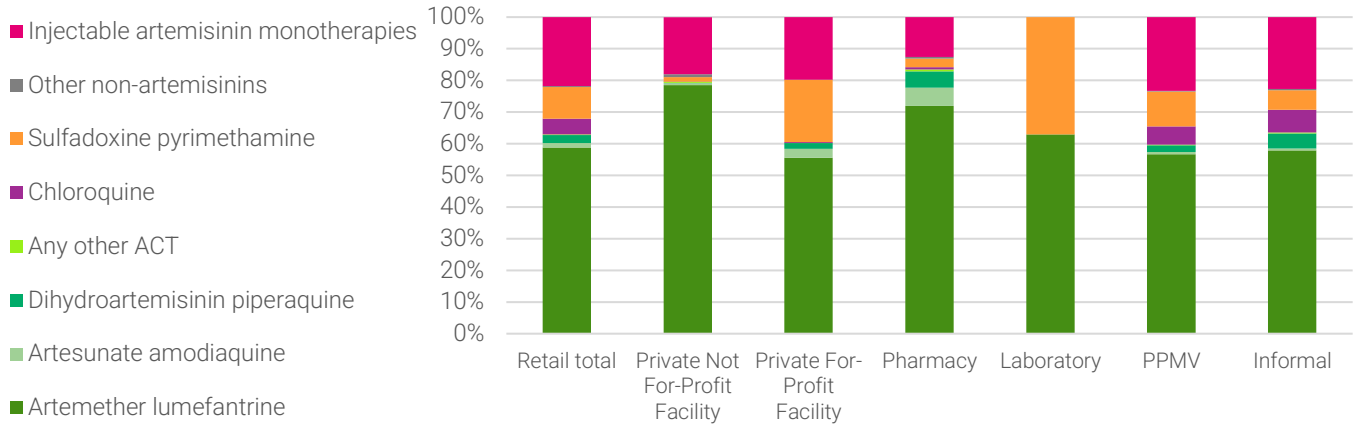
Figure 25. Proportion of AETD reportedly sold or distributed in the previous week by antimalarial type WITHIN each outlet type among all AETDs sold/distributed in the previous week within the specified outlet type.

Abia



Total products: Private not-for-profit=59 Private-for-profit=58 Pharmacy=808 Laboratory=8 PPMV=6970 Informal=56

Kano



Total products: Private not-for-profit=71 Private-for-profit=384 Pharmacy=1476 Laboratory=3 PPMV=7191 Informal other=182

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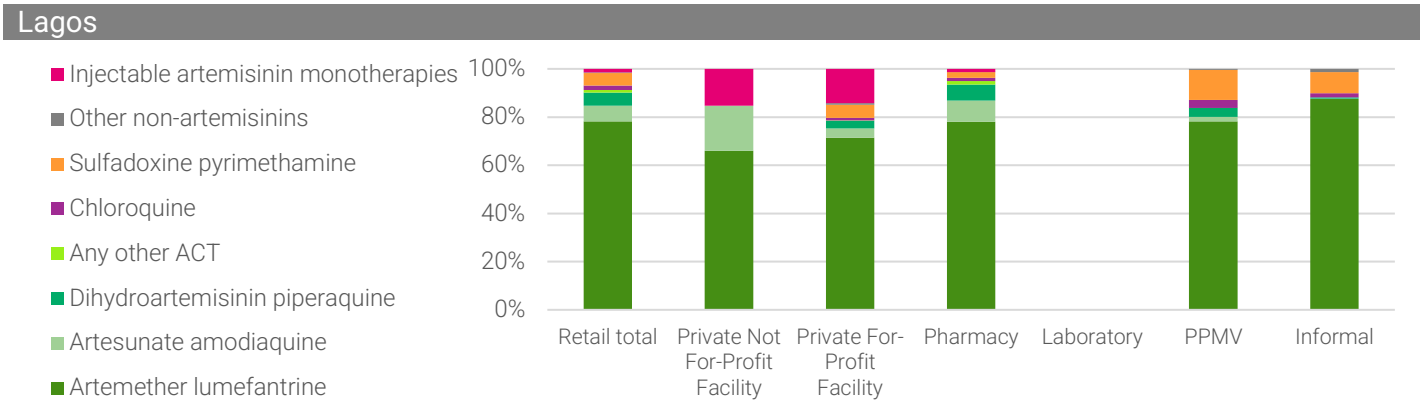


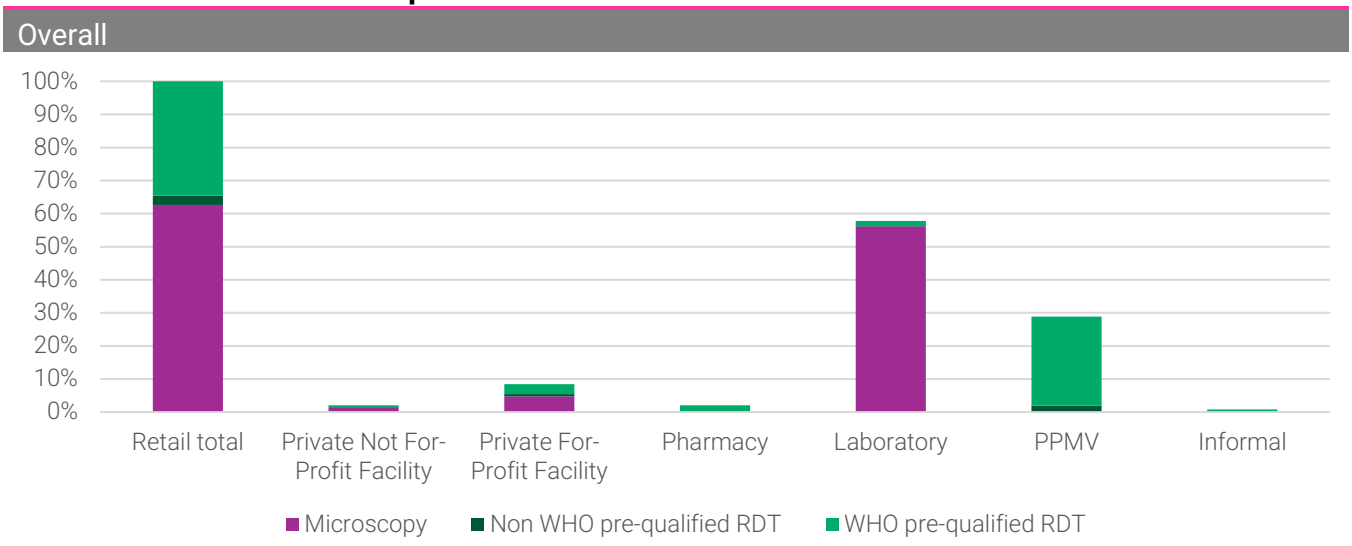
Total products: Private not-for-profit=13 Private-for-profit=228 Pharmacy=2561 Laboratory=0 PPMV=2285 Informal other=175

Across all outlet types and in all three states, AL had the largest market share of any type of antimalarial, representing 82%, 59% and 76% of the total market in Abia, Kano and Lagos. DHAPPQ represented 7% 5% and 8% of the total market in those three states, respectively. SP represented 3%, 9% and 4% of the total market in Abia, Kano and Lagos, respectively. Injectable artemether represented 17% of the market in Kano, but 1% or less in the other two states.

When disaggregated by outlet type, PPMVs, pharmacies and informal outlets in Abia and Lagos states had similar patterns of antimalarial market share, with AL, ASAQ and DHAPPQ representing around 9 out of 10 antimalarials distributed in these outlets. Injectable artemether made up 30% and 15% of for-profit and not-for-profit facilities' market share in Lagos state. In Kano, for-profit and not-for profit facilities, PPMVs and informal outlets were similar with around two thirds of antimalarials distributed being AL, and between 14% and 20% being injectable artemether.

4.2 Market for malaria blood testing overall

Figure 26. Proportion of malaria blood tests reportedly sold or distributed in the previous week by outlet type and malaria blood test type (RDT, microscopy) as a percentage of all malaria blood tests sold/distributed in the previous week.



Total products: Private not-for-profit=30 Private-for-profit=149 Pharmacy=77 Laboratory=151 PPMV=413 Informal other=14

Laboratories account for the largest proportion of market share for malaria blood tests conducted or distributed in the private sector of the three states included in the study (58%), followed by PPMVs (28%) and for-profit facilities (8%). Most RDTs being sold/ distributed are passing through PPMVs.

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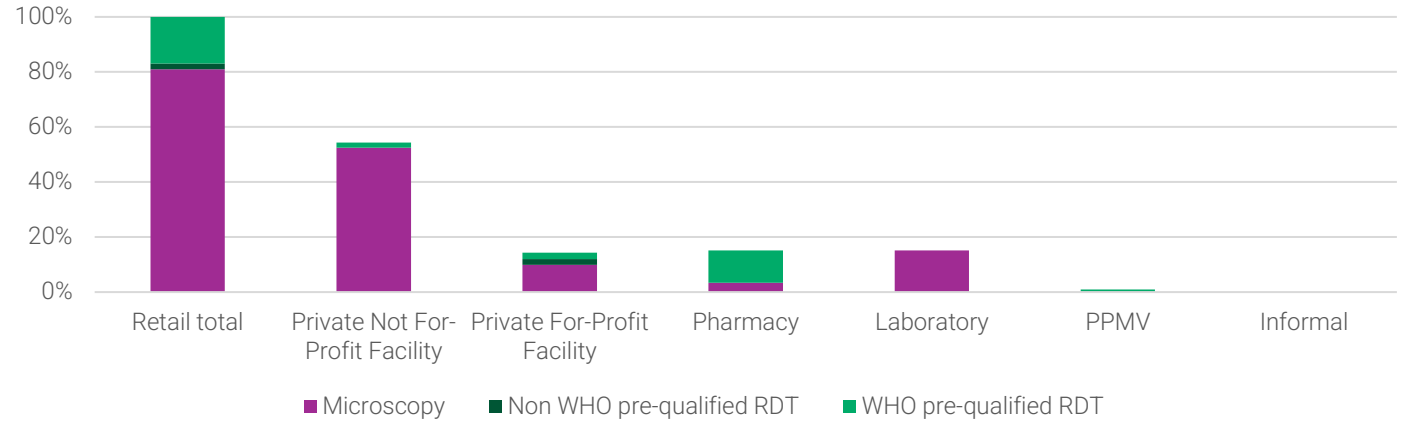
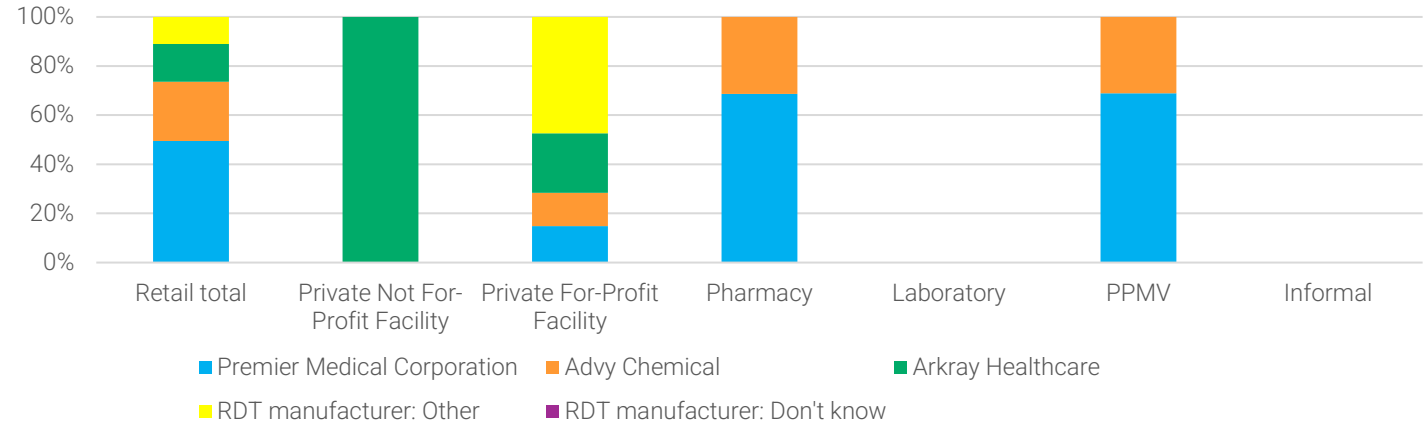
Figure 27. Proportion of malaria blood tests reportedly sold or distributed in the previous week by outlet type and malaria blood test type (RDT, microscopy) as a percentage of all malaria blood tests sold/distributed in the previous week.

Abia

By blood test type



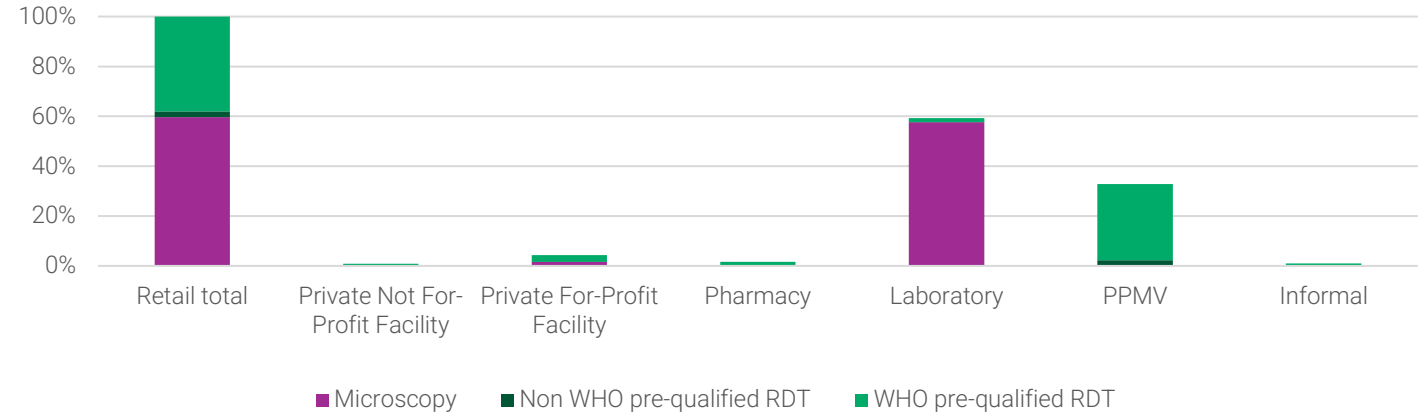
By manufacturer



Total products: Private not-for-profit=11 Private-for-profit=12 Pharmacy=6 Laboratory=1 PPMV=3 Informal=0

Kano

By blood test type



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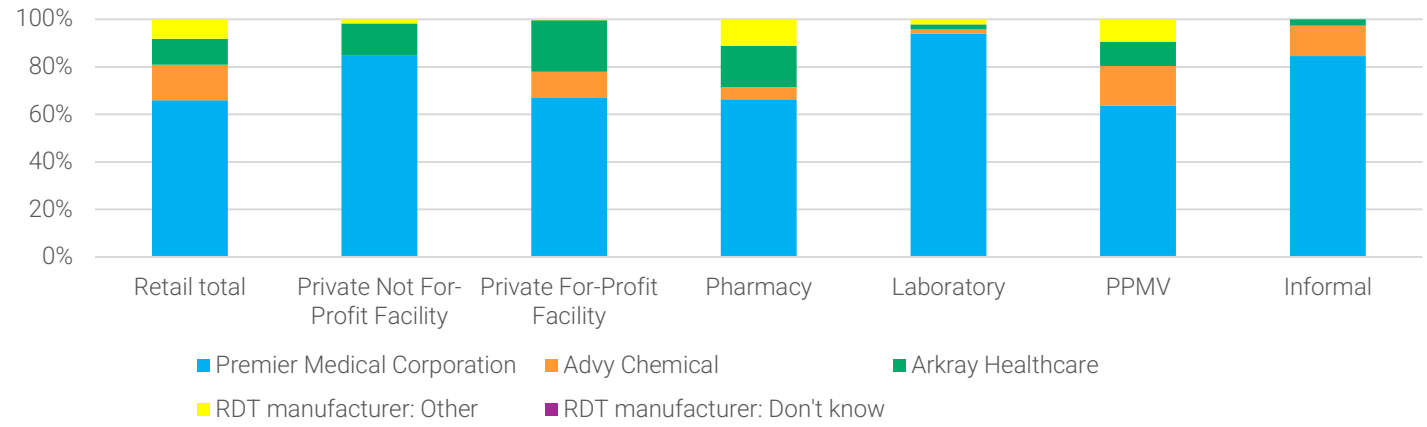
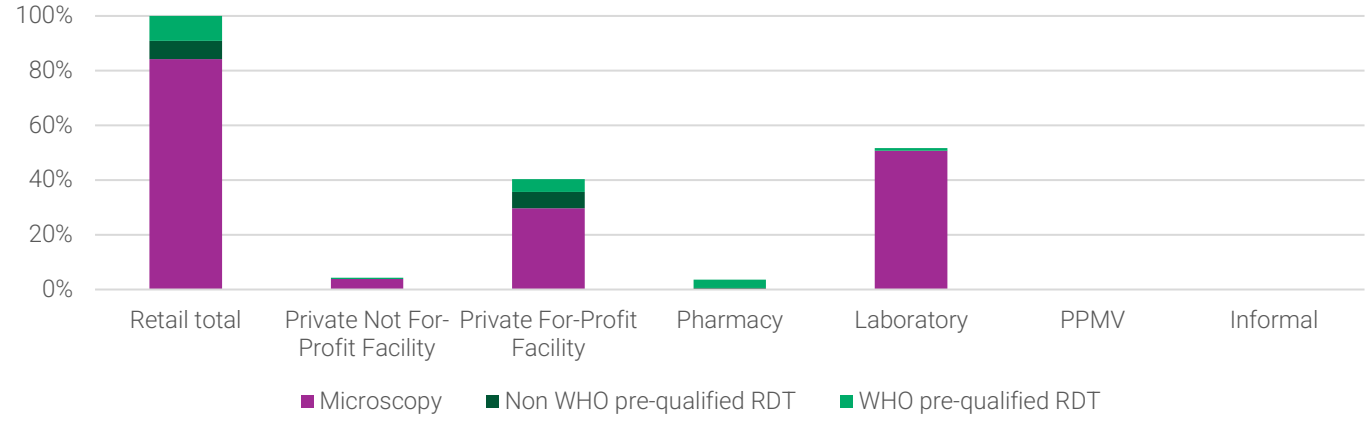
By manufacturer



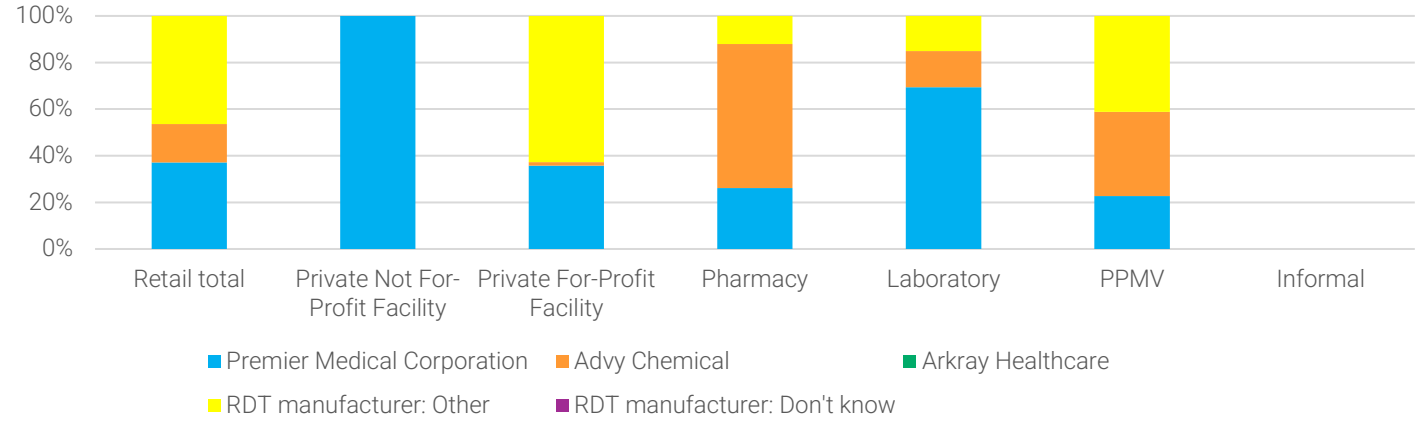
Total products: Private not-for-profit=16 Private-for-profit=104 Pharmacy=55 Laboratory=85 PPMV=407 Informal=14

Lagos

By blood test type



By manufacturer



Total products: Private not-for-profit=3 Private-for-profit=33 Pharmacy=16 Laboratory=65 PPMV=3 Informal=0

In Abia and Lagos states, microscopy made up the majority of all testing conducted in the week preceding the survey (77% and 85% in these states, respectively), while in Kano State, RDTs represented the majority (64%) of the market.

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In Abia, most testing was done in not-for-profit facilities (45%) followed by pharmacies (23%) and for-profit facilities (22%). Around 6% of all testing in Abia was conducted in laboratories (all microscopy), while around 5% was conducted in PPMVs (all RDTs). None was reported in the informal sector.

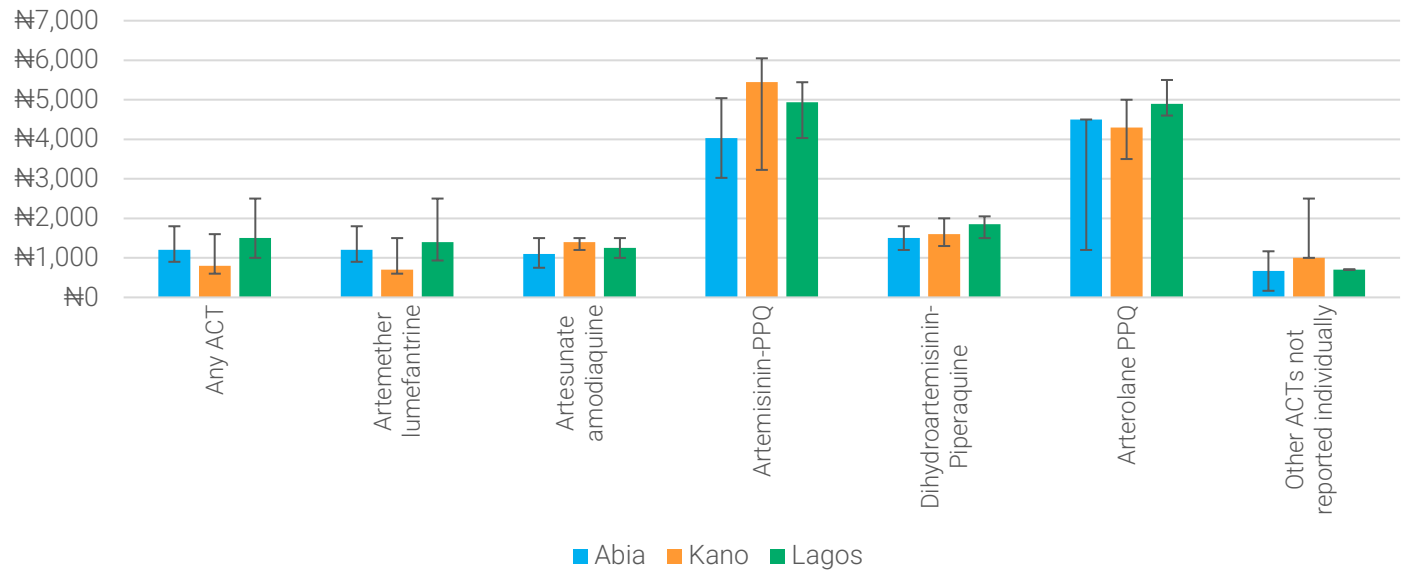
In Kano, most testing was conducted in PPMVs (41% of the total - all RDTs), followed by for-profit facilities (26%), laboratories (18%), pharmacies (8%) and not-for-profit facilities (6%). RDTs manufactured by Premier Medical Corporation made up the majority of Kano's market share across all outlet types.

In Lagos, almost three quarters of malaria diagnostic market share was through laboratories (73%, mostly microscopy), with for-profit facilities and not-for-profit facilities together accounting for 25% of the total.

5 RETAIL PRICE TO CUSTOMERS

5.1 Sales price of antimalarial tablet AETDs to customers

Figure 28. Median retail price of ACT types, overall for each state



Total ACTs with retail price information:
ABIA: Any ACT=6116; Artemether lumefantrine=5469; Artesunate amodiaquine=116; Artemisinin-PPQ=27; Dihydroartemisinin-Piperaquine=489; Arterolane PPQ=13; Other ACTs not reported individually=2
KANO: Any ACT=4178; Artemether lumefantrine=3602; Artesunate amodiaquine=130; Artemisinin-PPQ=57; Dihydroartemisinin-Piperaquine=375; Arterolane PPQ=11; Other ACTs not reported individually=3
LAGOS: Any ACT=4409; Artemether lumefantrine=3650; Artesunate amodiaquine=210; Artemisinin-PPQ=88; Dihydroartemisinin-Piperaquine=430; Arterolane PPQ=30; Other ACTs not reported individually=1

The median price per AETD of any ACT varied by type of ACT and state. AL is relatively low cost across states. Dihydroartemisinin-Piperaquine and Artesunate amodiaquine are similarly priced to AL and cheaper compared to Artemisinin PPQ and Arterolane PPQ, which are much more expensive in all three states.

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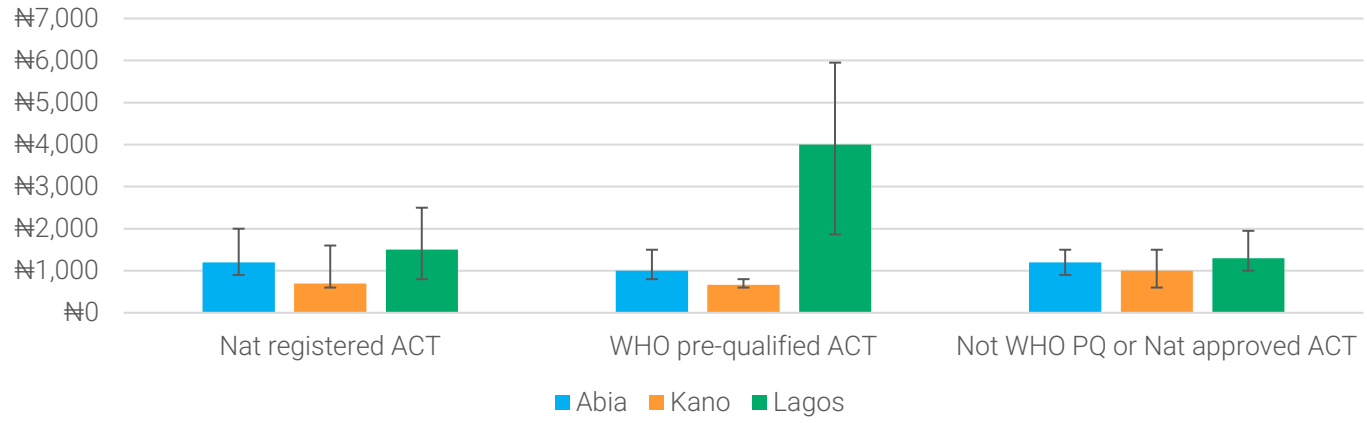
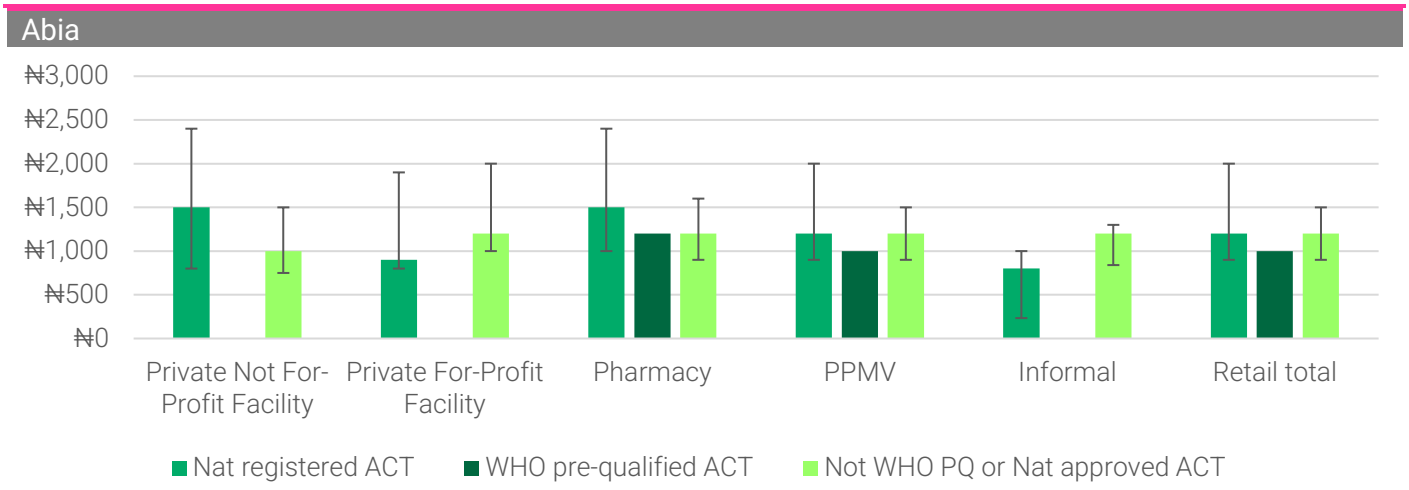
Figure 29. Median retail price of WHO pre-qualified, nationally approved, and non-approved antimalarials, overall for each state



Total ACTs with retail price information:
ABIA: Any ACT=6116; WHO pre-qualified ACT=91; WHO PQ and Nationally approved ACT=1; WHO PQ ACT, not Nat. Ap.=90; Nat approved but not WHO PQ ACT=3955; Not WHO PQ or Nat approved ACT=2070
KANO: Any ACT=4178; WHO pre-qualified ACT=461; WHO PQ and Nationally approved ACT=174; WHO PQ ACT, not Nat. Ap.=287; Nat approved but not WHO PQ ACT=2675; Not WHO PQ or Nat approved ACT=1042
LAGOS: Any ACT=4409; WHO pre-qualified ACT=143; WHO PQ and Nationally approved ACT=11; WHO PQ ACT, not Nat. Ap.=132; Nat approved but not WHO PQ ACT=2704; Not WHO PQ or Nat approved ACT=1562

The price of ACTs that were nationally registered (those listed in the NAFDAC Green Book) were about half the price in Kano (₦700) compared to Lagos (₦1500) and Abia (₦1200). WHO prequalified ACTs were also cheaper in Kano (₦667) compared to Abia (₦1000) and noticeably higher Lagos (₦4000). Conversely, median prices of ACTs that were neither nationally registered nor WHO pre-qualified were similar across states (range: ₦1100 to ₦1300).

Figure 30. Median retail price of WHO pre-qualified, nationally approved, and non-approved antimalarial AETDs, by outlet type



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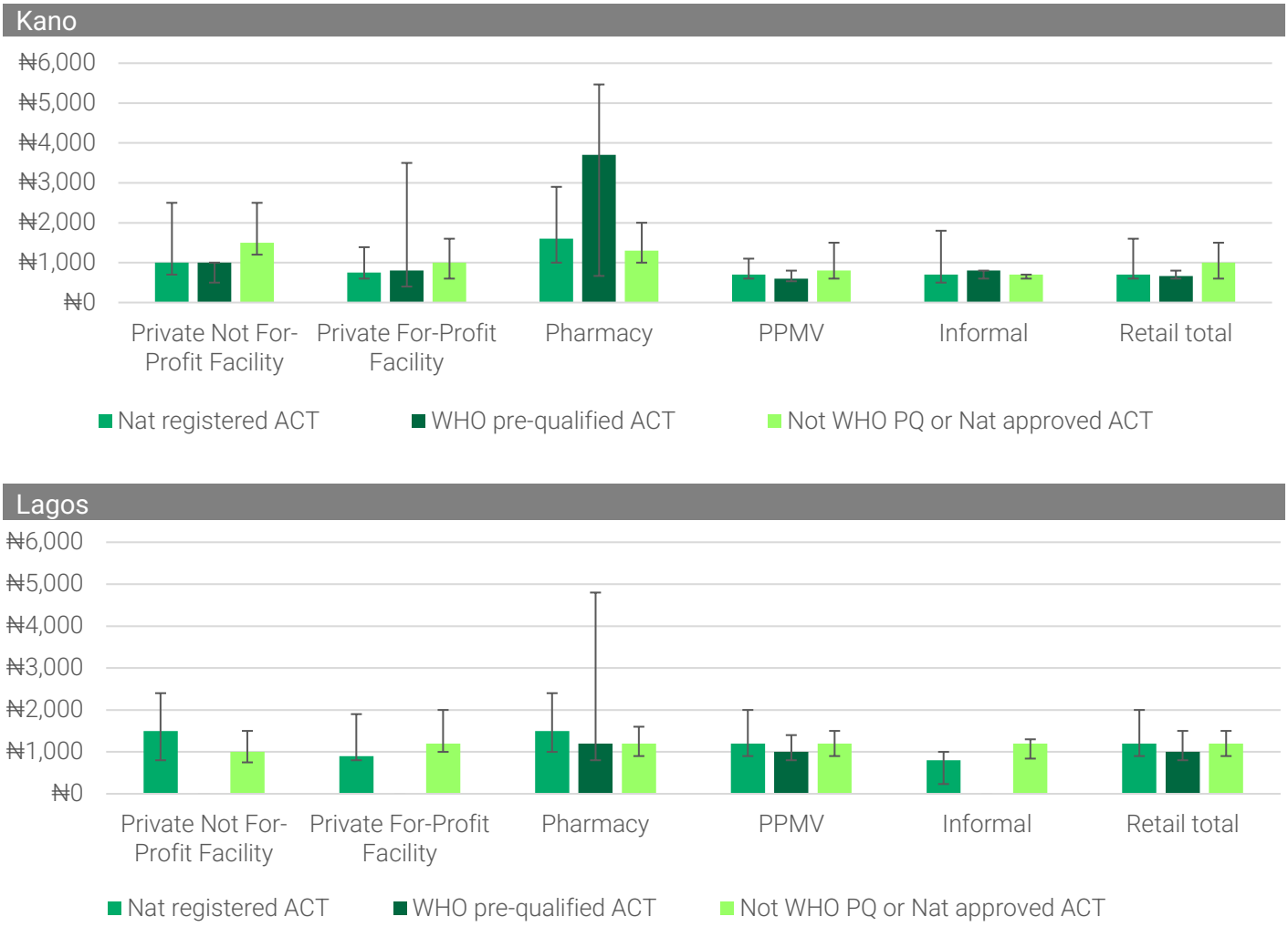

Refer to the Purchase Price of Antimalarial AETDs table for N values.

In Abia State, the price per AETD of ACTs that are nationally registered, WHO pre-qualified, or neither, were similar across outlet types (ranging from ₦800 to ₦1500). In Kano State, prices of all three types of ACT were similar in all outlet types (ranging from ₦600 to ₦1600) except pharmacies where WHO PQ ACT AETDs were ₦3700. In Lagos State, the price per AETD of ACTs that are nationally registered, WHO pre-qualified, or neither, were similar across outlet types (ranging from ₦800 to ₦1500).

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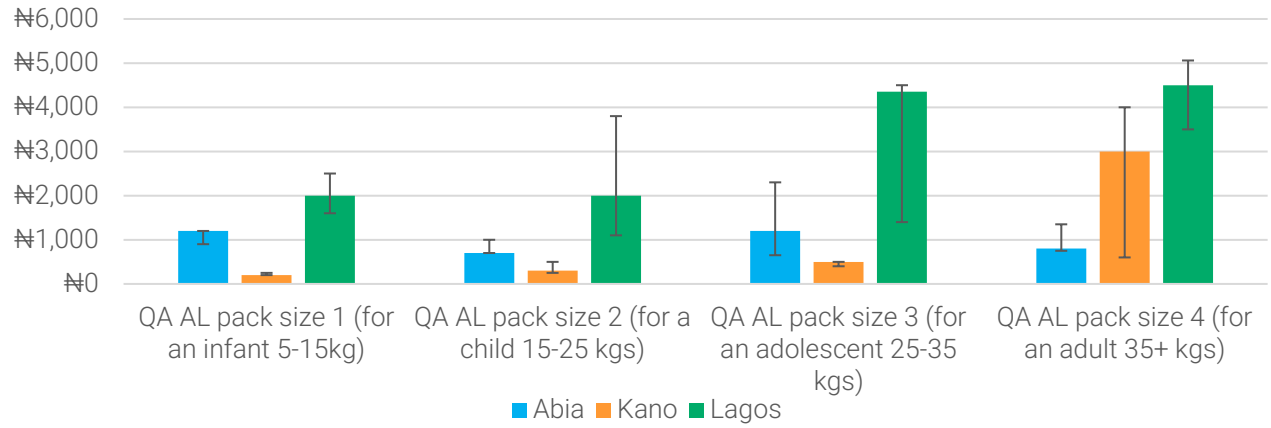
5.2 Sales price of pre-packaged ACTs to customers

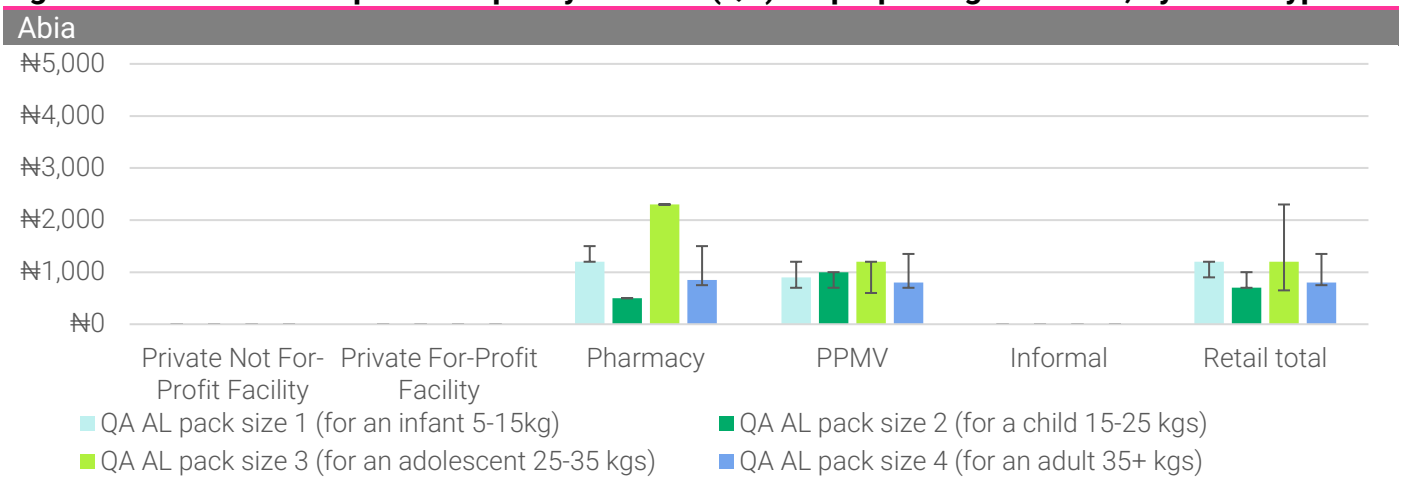
Figure 31. Median retail price for quality assured (QA) AL prepackaged tablets, for each state



Total QA AL packs with retail price information:
ABIA: QA AL pack size 1 (for an infant 5-15kg)=6; QA AL pack size 2 (for a child 15-25 kgs)=5; QA AL pack size 3 (for an adolescent 25-35 kgs)=5; QA AL pack size 4 (for an adult 35+ kgs)=12
KANO: QA AL pack size 1 (for an infant 5-15kg)=119; QA AL pack size 2 (for a child 15-25 kgs)=63; QA AL pack size 3 (for an adolescent 25-35 kgs)=90; QA AL pack size 4 (for an adult 35+ kgs)=57
LAGOS: QA AL pack size 1 (for an infant 5-15kg)=17; QA AL pack size 2 (for a child 15-25 kgs)=13; QA AL pack size 3 (for an adolescent 25-35 kgs)=14; QA AL pack size 4 (for an adult 35+ kgs)=67

In Abia State, the median price of tablet pre-packaged pediatric and adolescent QA AL (pack size 1 and 3) were higher than child and adult pack sizes (₦=1200, versus ₦700-800). In Kano, price per pack increased with pack size (from ₦200 for pediatric pack size 1, to ₦3000 for the largest, adult pack size). In Lagos, pack sizes 1 and 2 were similar (₦2000) and pack size 3 and pack size 4 were higher and also similar (₦4350 and ₦4500).

Figure 32. Median retail price for quality assured (QA) AL prepackaged tablets, by outlet type



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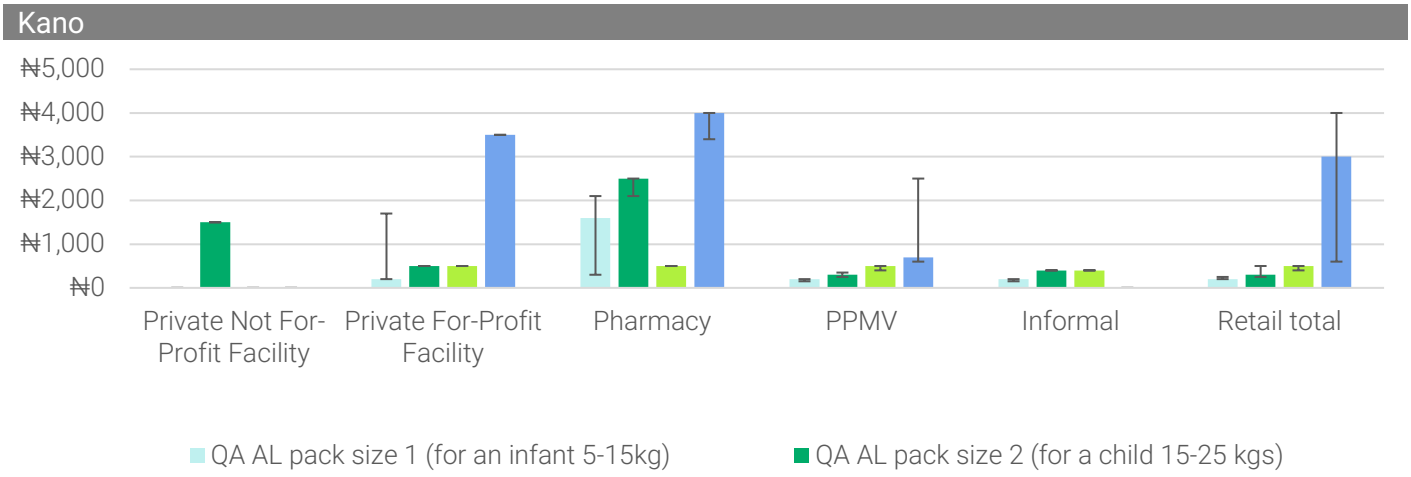

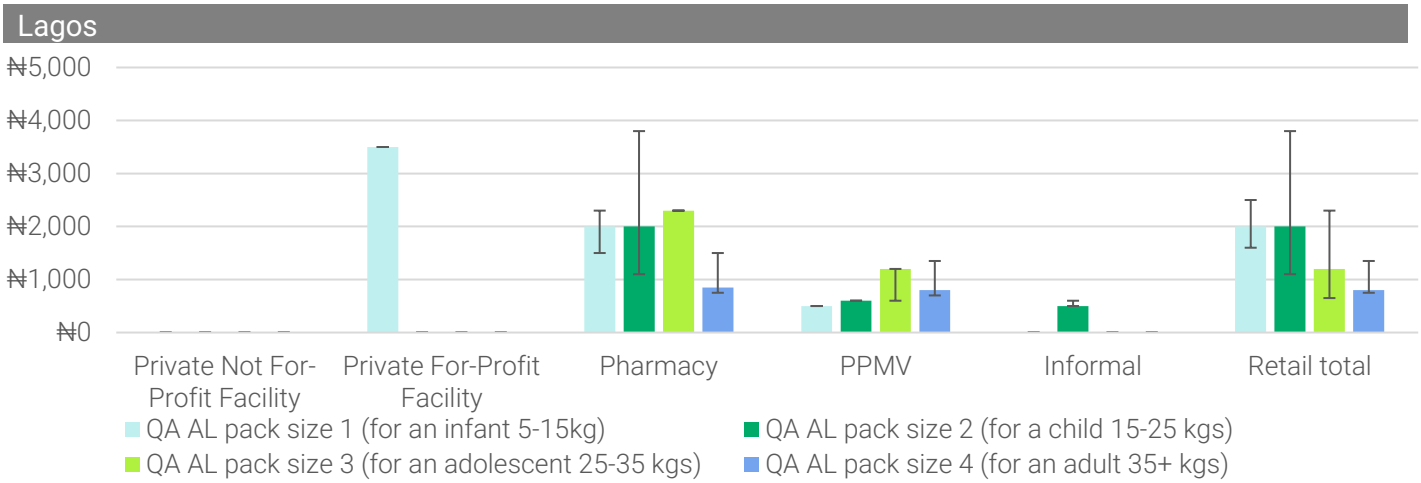

Refer to the Purchase Price of Pre-packaged ACTs table for N values.

In Abia State, pre-packaged tablet QA AL was only found in pharmacies and PPMVs, where its median price ranged from ₦500 for pack size 2 in PPMVS, to ₦2300 for pack size 3 in pharmacies. In Kano State, pre-packaged QA AL for infants (5-15kg) had the lowest median price in all outlet types except pharmacies, and its price ranged from ₦200 (in for-profit facilities) to ₦1600 in pharmacies. Overall, median prices were higher in pharmacies and for-profit facilities than elsewhere for most of these products. In Lagos State, the median prices for all 4 pack sizes of pre-packaged QA AL were higher in pharmacies (where they ranged from ₦850 to ₦2300) than in PPMVs (where they ranged from ₦500 to ₦1200). Most pre-packaged QA AL were not found in facilities or informal outlets.

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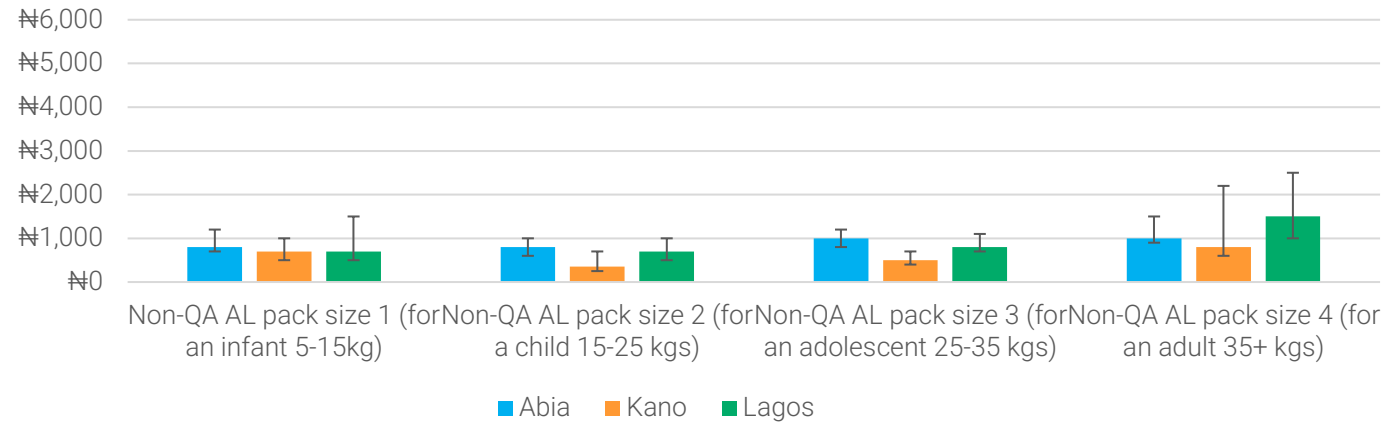
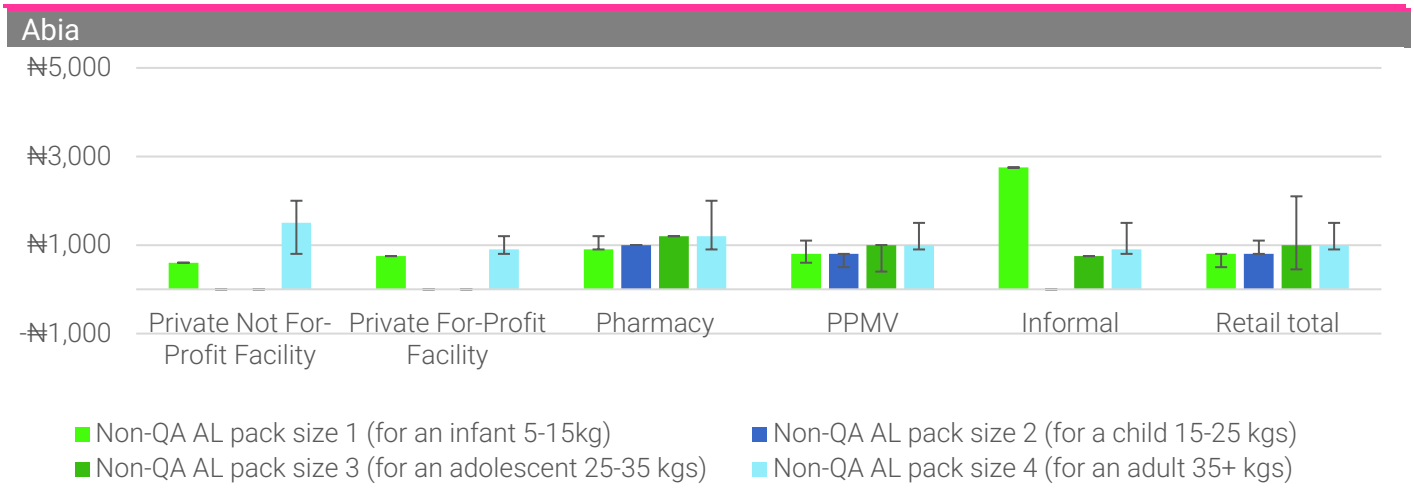
Figure 33. Median retail price for Non-QA AL packages, overall for each state



Total QA AL packs with retail price information:
ABIA: Non-QA AL pack size 1 (for an infant 5-15kg)=367; Non-QA AL pack size 2 (for a child 15-25 kgs)=239; Non-QA AL pack size 3 (for an adolescent 25-35 kgs)=96; Non-QA AL pack size 4 (for an adult 35+ kgs)=3420
KANO: Non-QA AL pack size 1 (for an infant 5-15kg)=113; Non-QA AL pack size 2 (for a child 15-25 kgs)=57; Non-QA AL pack size 3 (for an adolescent 25-35 kgs)=28; Non-QA AL pack size 4 (for an adult 35+ kgs)=2118
LAGOS: Non-QA AL pack size 1 (for an infant 5-15kg)=327; Non-QA AL pack size 2 (for a child 15-25 kgs)=236; Non-QA AL pack size 3 (for an adolescent 25-35 kgs)=238; Non-QA AL pack size 4 (for an adult 35+ kgs)=1802

The median price of pre-packaged tablet non-QA AL in pack size 1 (pediatric dose) was similar in all three states (₦700-800). In Abia State, there was little difference in the price per pack across all four pack sizes for non-QA AL (ranging from ₦800 to ₦1000). In Kano State, the median price ranged from ₦500 for pack size 3 (25-35kg) to ₦8000 for pack size 4 (>35kg). n Lagos State, the prices ranged from ₦700 for pack sizes 1 and 2 (5-15kg and 15-25kg, respectively) to ₦1500 for pack size 4.

Figure 34. Median retail price for Non-QA AL packages, by outlet type



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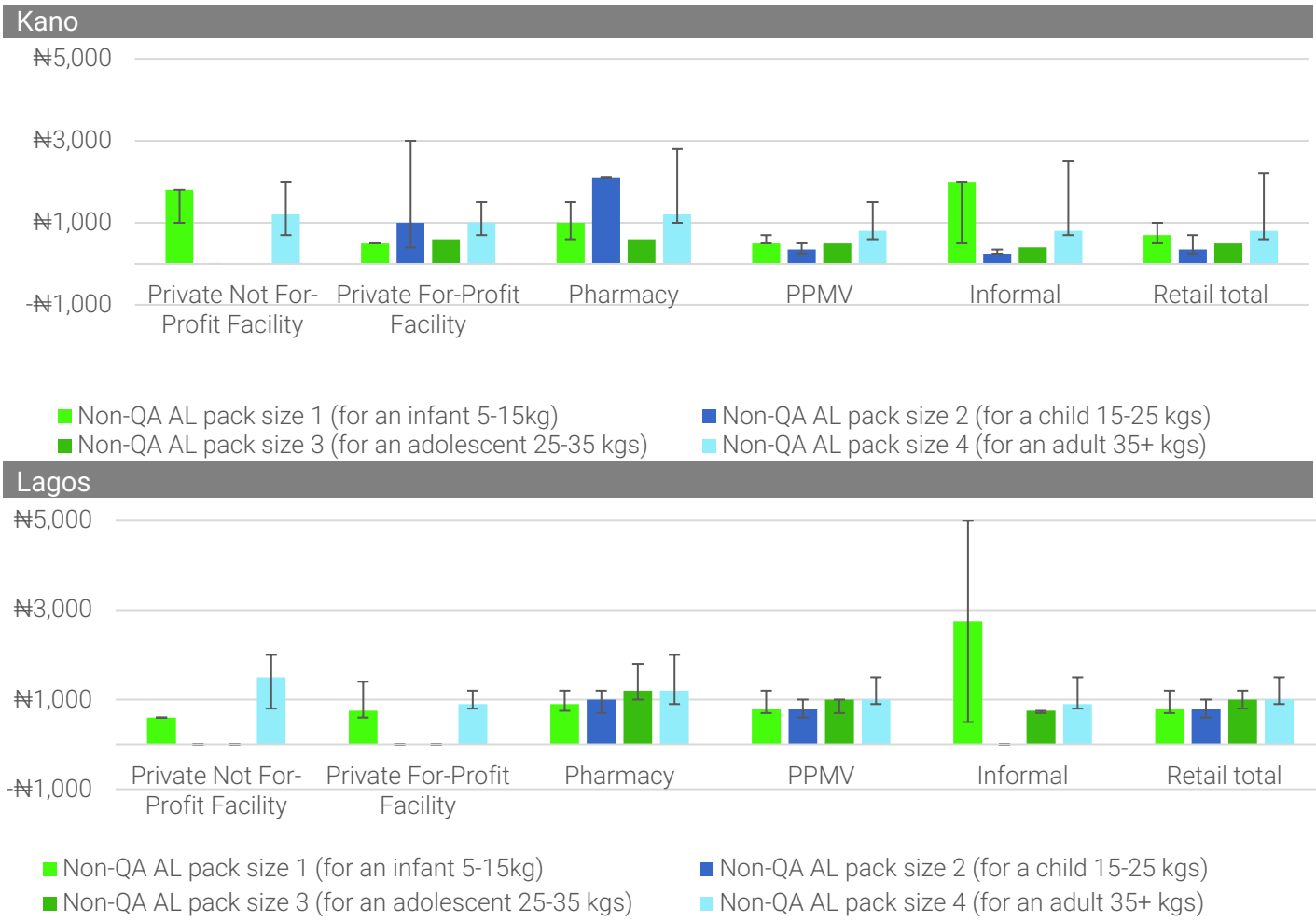

Refer to the Purchase Price of Pre-packaged ACTs table for N values.

In general, the median price of pre-packaged tablet non-QA AL was the same or lower than QA AL in any given outlet. N values for informal outlets too small to be reliable. In Abia State, the median price of non-QA AL pack size 1 ranged from ₦500 in not-for-profit facilities to ₦900 in pharmacies (the informal sector had higher prices but a small N), while the adult (>35kg) pack size 4 median price ranged from ₦1000 in PPMVs to ₦1500 in not-for-profit facilities. In Kano State, non-QA AL pack sizes 1, 2 and 4 were quite similar within and across outlets (ranging from ₦350 to ₦1000), while the adult (>35kg) pack size 3 median price was higher in pharmacies and for-profit facilities (₦2100 and ₦1000).

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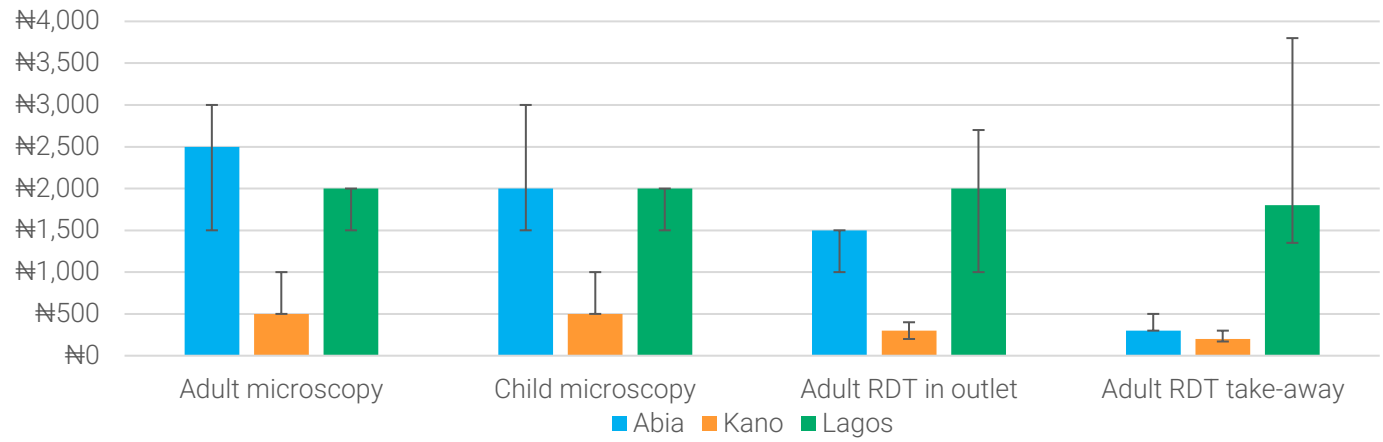
5.3 Sales price of malaria blood testing to customers

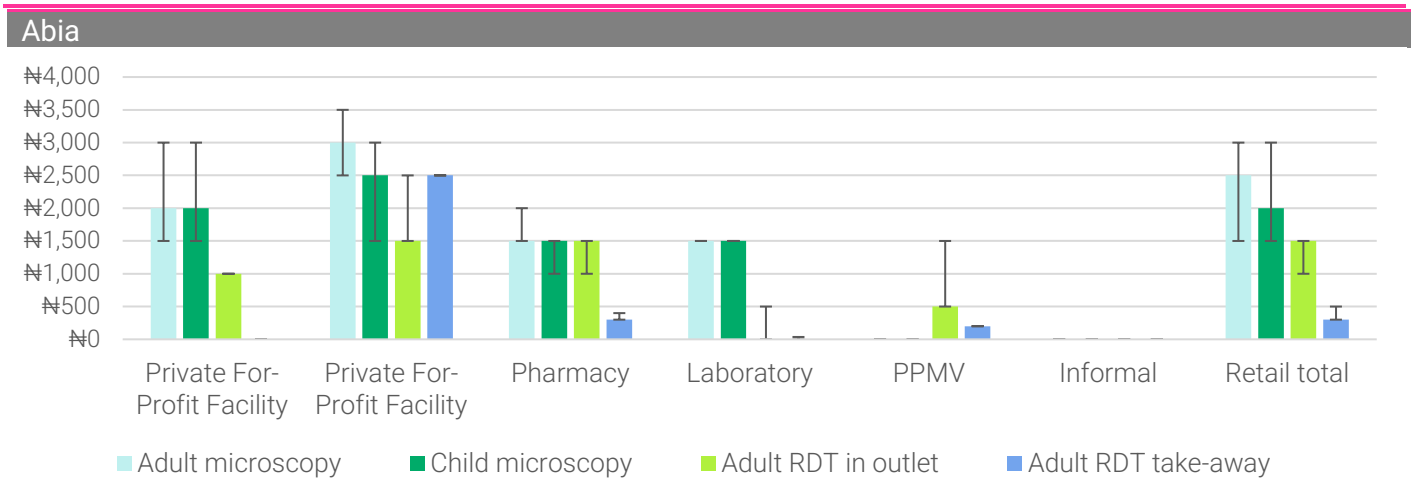
Figure 35. Median retail price of blood testing to consumers including any consultation or service fees, overall for each state



Total diagnostics with price information:
ABIA: Adult microscopy=18; Child microscopy=18; Adult RDT in outlet=14; Adult RDT take-away=69
KANO: Adult microscopy=119; Child microscopy=120; Adult RDT in outlet=510; Adult RDT take-away=69
LAGOS: Adult microscopy=76; Child microscopy=76; Adult RDT in outlet=36; Adult RDT take-away=69

The median price of microscopy was slightly higher in all states except Lagos where RDT in outlet testing was the same, meaning the price of testing is the same or higher than most treatment.

Figure 36. Median retail price of blood testing to consumers including any consultation or service fees



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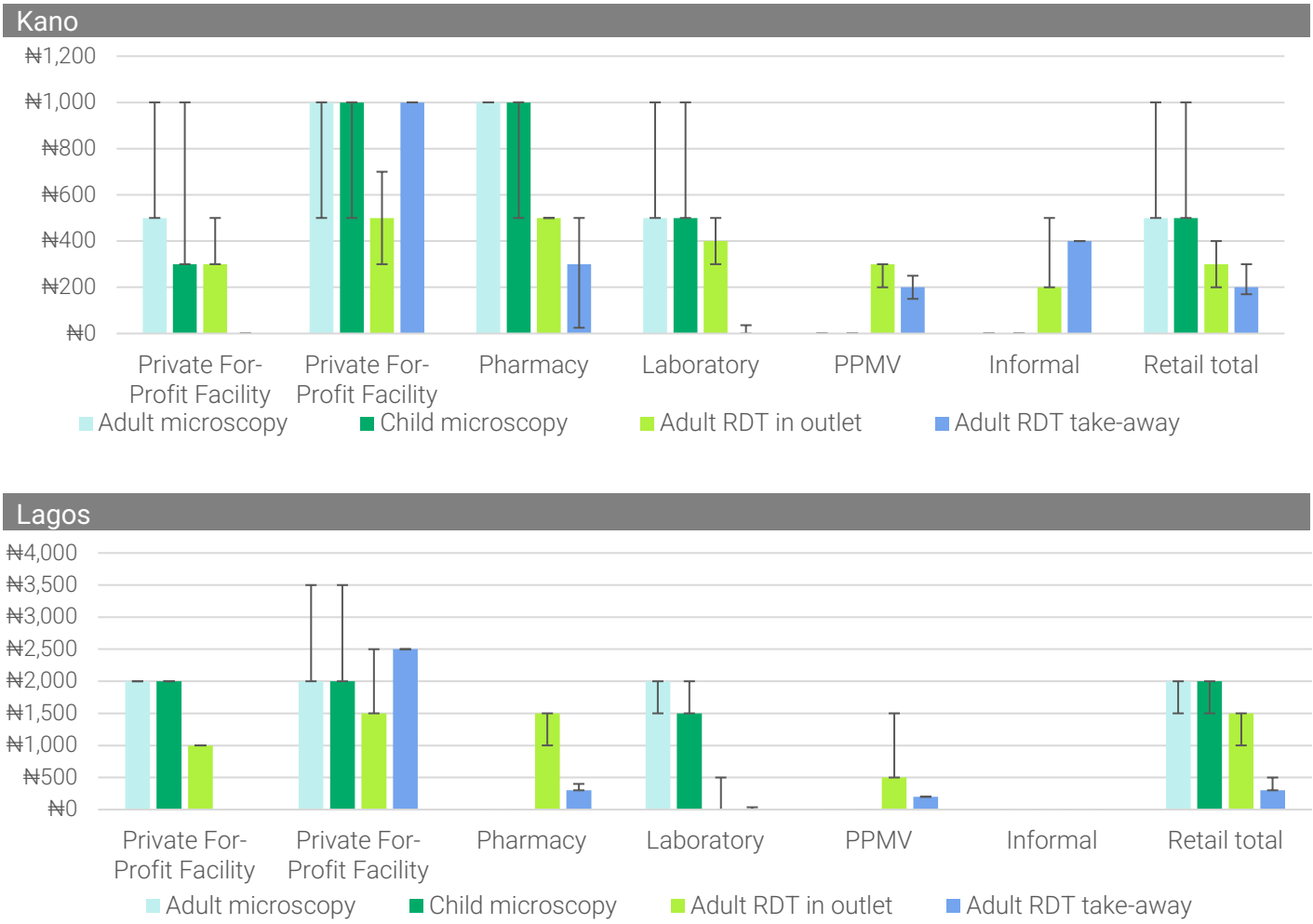

Refer to the Sales Price of Malaria Blood Testing table for N values.

In Abia and Lagos states, low Ns for malaria blood testing prices make outlet level comparisons difficult. In Kano, median microscopy prices were higher in private-for-profit facilities and pharmacies (₦ 1000) compared to labs and not-for-profit facilities. There was no microscopy price data from PPMVs or informal outlets. RDT prices were generally lower than microscopy in all outlet types except for take-away RDTS in for-profit facilities. PPMVs had the lowest median RDT prices overall (₦530 for in-outlet, and ₦200 for take-away).

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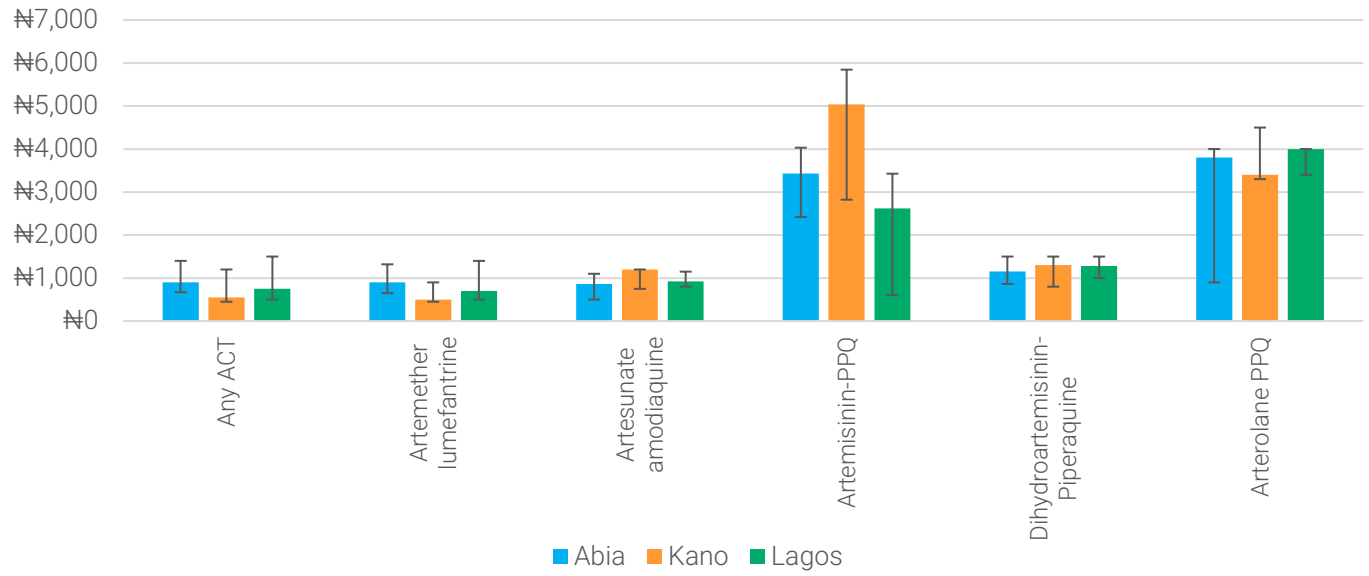
6 PURCHASE PRICE FROM SUPPLIERS

6.1 Purchase price of antimalarial AETDs from suppliers

Figure 37. Median purchase price of ACT types (AETD tablet formulations) from the outlet's supplier (e.g. wholesaler), overall for each state



Total ACTs with purchase price information:
ABIA: Any ACT=5675; Artemether lumefantrine=5091; Artesunate amodiaquine=108; Artemisinin-PPQ=27; Dihydroartemisinin-Piperaquine=434; Arterolane PPQ=13; Other ACTs not reported individually=2
KANO: Any ACT=3323; Artemether lumefantrine=2900; Artesunate amodiaquine=83; Artemisinin-PPQ=38; Dihydroartemisinin-Piperaquine=296; Arterolane PPQ=5; Other ACTs not reported individually=1
LAGOS: Any ACT=2235; Artemether lumefantrine=1967; Artesunate amodiaquine=76; Artemisinin-PPQ=22; Dihydroartemisinin-Piperaquine=165; Arterolane PPQ=5; Other ACTs not reported individually=0

Outlets were asked about the prices they paid to purchase antimalarials. The median price they reported for one ACT AETD was ₦900, ₦650 and ₦750 in Abia, Kano and Lagos states, respectively. The median price per AETD of AL was similar across all three states (range: ₦900, 500, and 700 respectively). DHAPPQ varied very little from ₦1150 in Abia to ₦1300 in Kano. Artemisinin PPQ and Arterolane PPQ had greater variability and overall price across the states.

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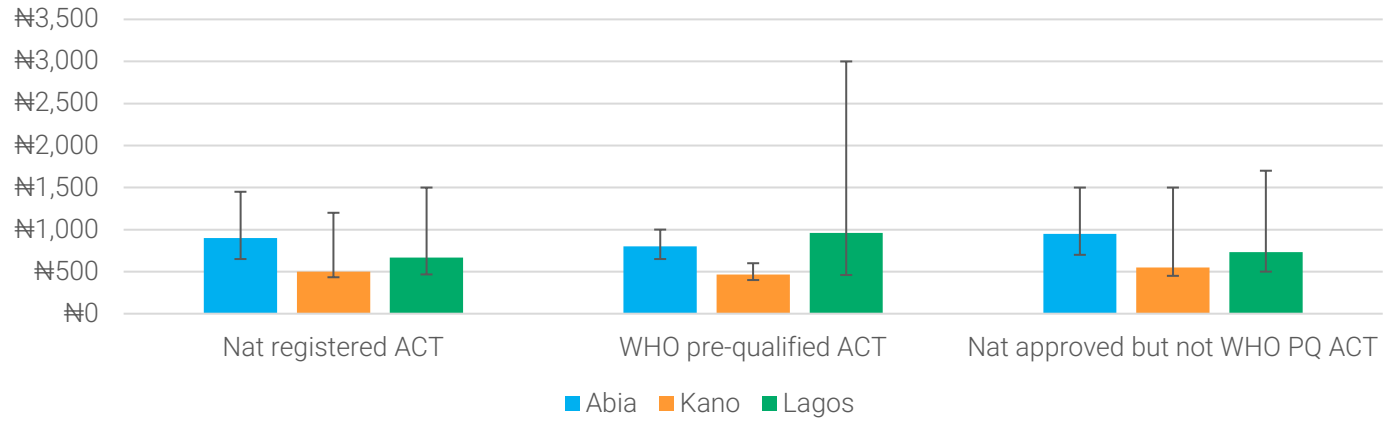
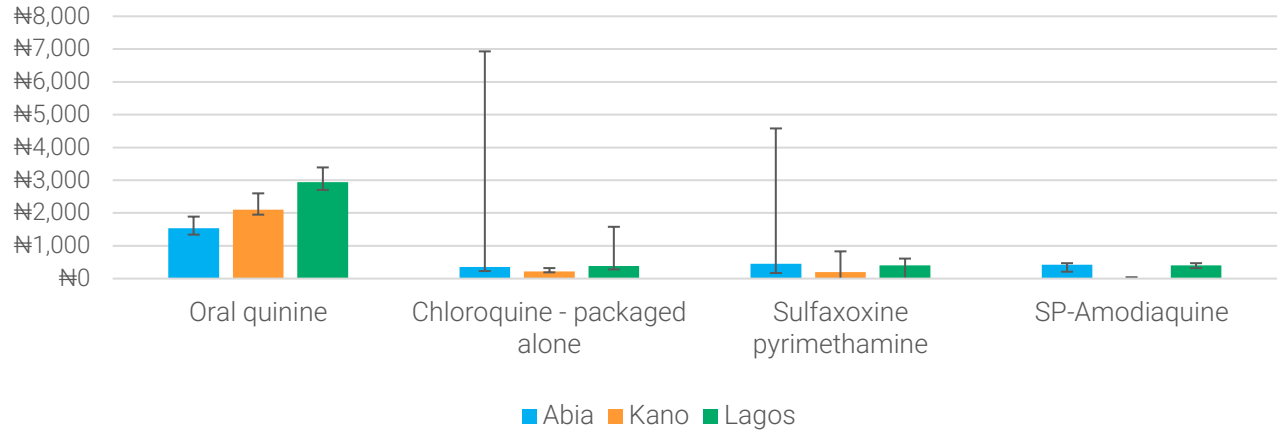
Figure 38. Median purchase price of WHO pre-qual, nationally approved, and non-approved ACTs (AETD tablet formulations) from the outlet's supplier (e.g. wholesaler), overall for each state



Total ACTs with purchase price information:
ABIA: Nat registered ACT=3738; WHO pre-qualified ACT=84; WHO PQ and Nationally approved ACT=1; WHO PQ ACT, not Nat. Ap.=83; Nat approved but not WHO PQ ACT=3681; Not WHO PQ or Nat approved ACT=1910
KANO: Nat registered ACT=2579; WHO pre-qualified ACT=372; WHO PQ and Nationally approved ACT=146; WHO PQ ACT, not Nat. Ap.=226; Nat approved but not WHO PQ ACT=2133; Not WHO PQ or Nat approved ACT=818
LAGOS: Nat registered ACT=1542; WHO pre-qualified ACT=53; WHO PQ and Nationally approved ACT=6; WHO PQ ACT, not Nat. Ap.=47; Nat approved but not WHO PQ ACT=1404; Not WHO PQ or Nat approved ACT=778

The median purchase price reported by outlets for ACTs that are nationally registered (appearing in the NAFDAC Green Book), WHO PQ, or neither of these was lower in Kano, compared to Lagos and Abia. The variability overall was low overall ranging from ₦ 467 to ₦ 960, comparable to the median purchase price for ACTs overall in each state

Figure 39. Median purchase price of non-artemisinins (AETD tablet formulations) from the outlet's supplier (e.g. wholesaler), overall for each state



Total antimalarials with purchase price information:
ABIA: Oral quinine=7; Chloroquine - packaged alone=16; Sulfaxoxine pyrimethamine=303; SP-Amodiaquine=25
KANO: Oral quinine=26; Chloroquine - packaged alone=74; Sulfaxoxine pyrimethamine=520; SP-Amodiaquine=17
LAGOS: Oral quinine=7; Chloroquine - packaged alone=67; Sulfaxoxine pyrimethamine=217; SP-Amodiaquine=17

The median reported purchase price per tablet AETD of non-artemisinin showed some variation by state. The median price of oral quinine ranged from ₦1540 in Abia to 2,940 in Lagos. Chloroquine, SP and SPAQ were all cheaper per tablet AETD than quinine in all three states and under ₦450.

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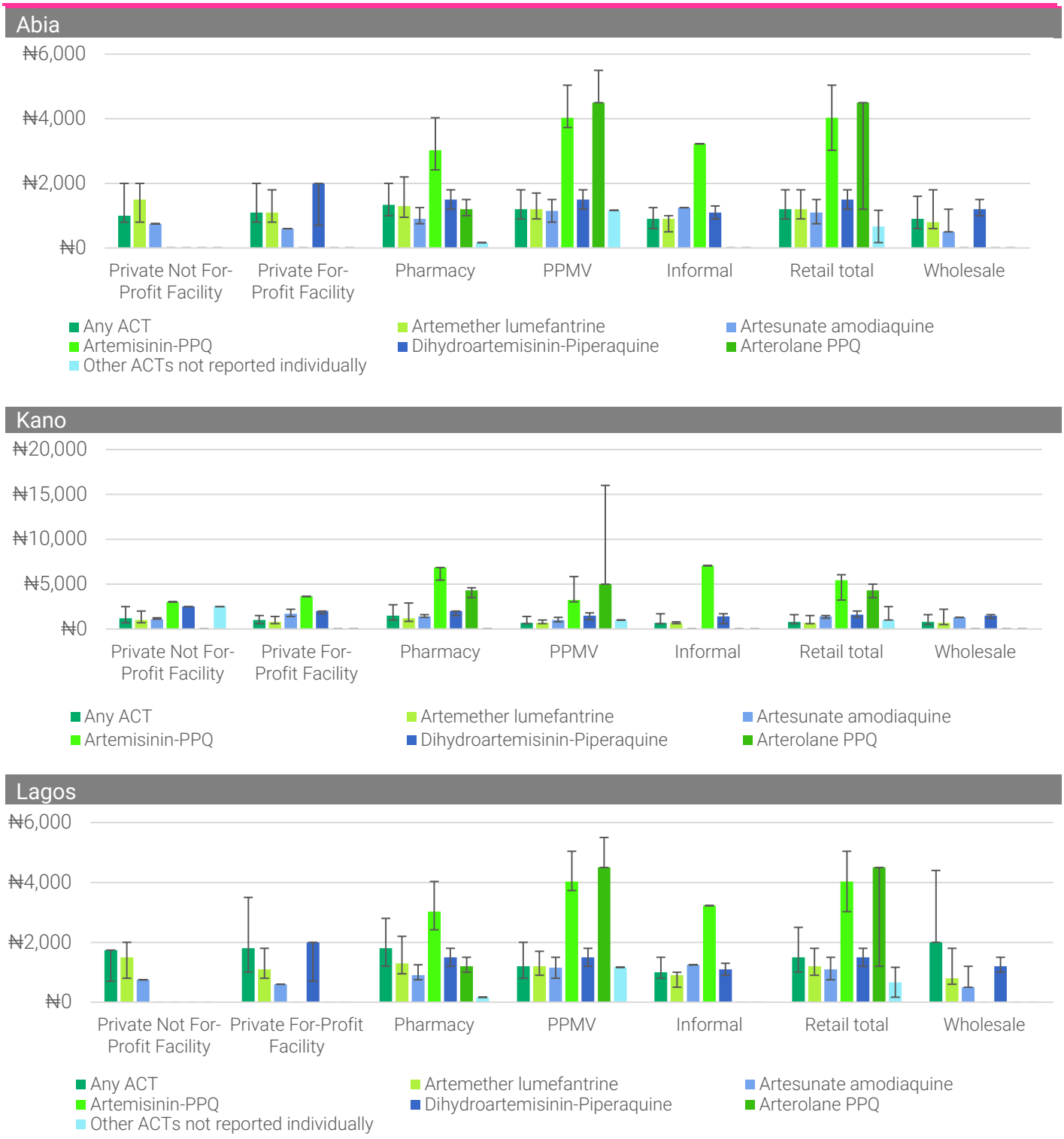
Figure 40. Median purchase price of ACT types (AETD tablet formulations) from the outlets supplier (e.g. wholesaler), by outlet type



Refer to the Purchase Price of Antimalarial AETDs table for N values.

Across all types of ACTs, the median reported purchase price varied by outlet type and state.
For AL, the most commonly reported ACT, the purchase price in Abia ranged from ₦800 in the informal private sector to ₦1300 in for-profit facilities. In Kano, AL purchase prices ranged from ₦700 to ₦1200. In Lagos AL purchase prices ranged from ₦800 to ₦1300.

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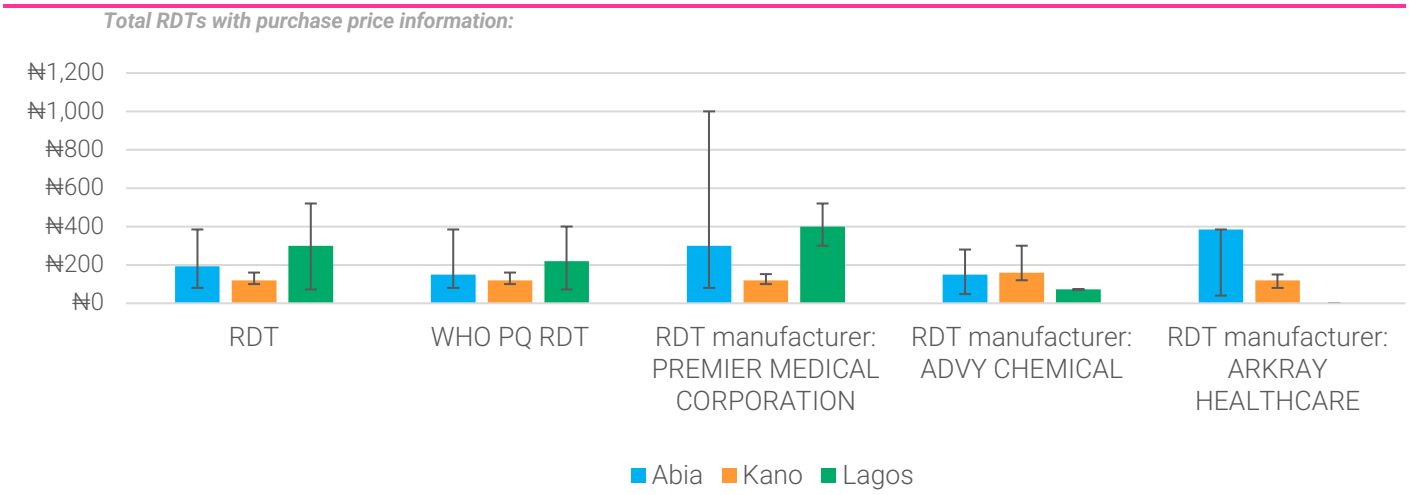
6.2 Purchase price of malaria RDTs from suppliers

Figure 41. Median purchase price of RDTs from the outlet's supplier (e.g. wholesaler), overall for each state



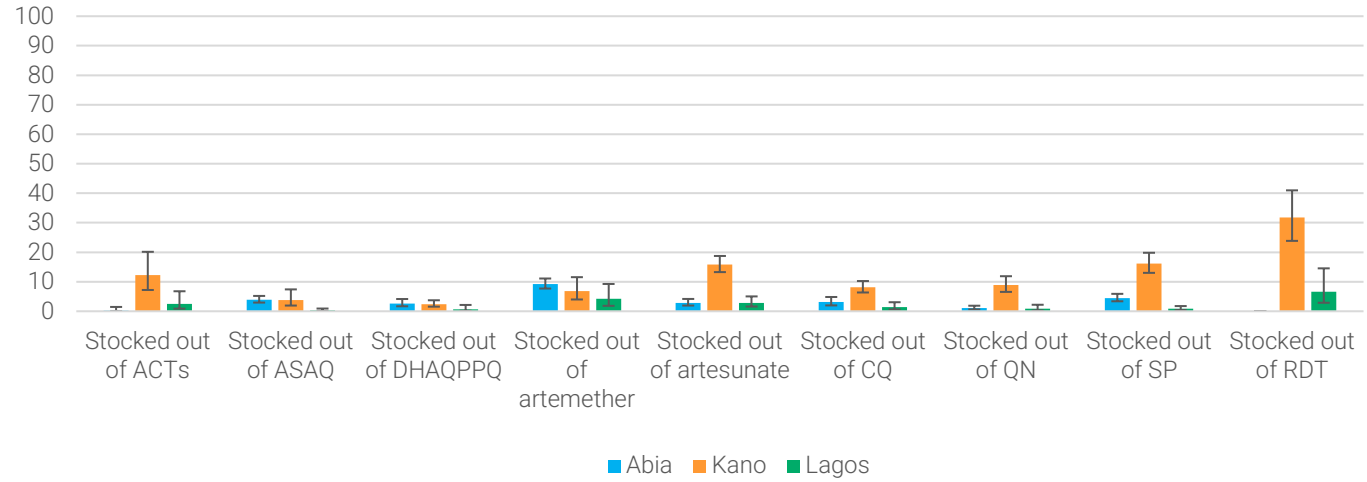
ABIA: RDT=13; WHO PQ RDT=11; RDT manufacturer: PREMIER MEDICAL CORPORATION=5; RDT manufacturer: ADVY CHEMICAL=4; RDT manufacturer: ARKRAY HEALTHCARE=2
KANO: RDT=449; WHO PQ RDT=425; RDT manufacturer: PREMIER MEDICAL CORPORATION=279; RDT manufacturer: ADVY CHEMICAL=71; RDT manufacturer: ARKRAY HEALTHCARE=60
LAGOS: RDT=14; WHO PQ RDT=12; RDT manufacturer: PREMIER MEDICAL CORPORATION=8; RDT manufacturer: ADVY CHEMICAL=2; RDT manufacturer: ARKRAY HEALTHCARE=0

The median wholesale purchase price for RDTs ranged from ₦120 in Kano to ₦300 in Lagos states. The median purchase price for WHO PQ RDTs was very similar to all RDTs across states. There was variation by common manufacturer overall and by state.

7 STOCKOUTS

7.1 Stockouts of malaria commodities

Figure 42. Proportion of antimalarial-stocking outlets reporting stocked-out products on the day of the survey, overall, for each state



Total antimalarial stocking outlets: Abia=1408 Kano=1603 Lagos=926

The proportion of antimalarial stocking outlets that reported currently being stocked out of ACTs ranged from 0% in Abia and Lagos to 5% in Kano. In Abia State, the most frequently reported products that were

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stocked out were artemether (9% of antimalarial-stocking outlets), SP (4%), ASAQ (4%), artesunate and chloroquine (both 3%). In Kano state, the most frequently reported products that were stocked-out by outlets were artesunate (15%), SP (13%), chloroquine and quinine (both 9%) and artemether (8%), while in Lagos State, stockouts were rarer, and the proportion of outlets reporting stocked-out products was highest for artemether and artesunate (both 2%). RDTs were reported as being stocked-out by 0% of outlets in Abia, 28% of outlets in Kano, and 8% of outlets in Lagos.

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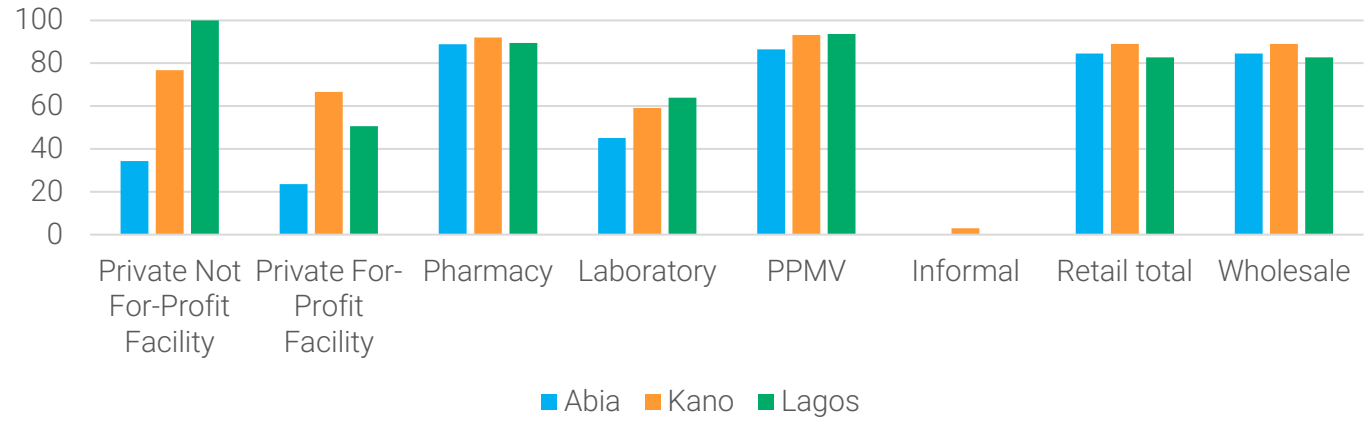
8 KEY PROVIDER INTERVIEW INDICATORS FOR NIGERIA

Below are select results of interest from the provider interview administered during the Nigeria ACTwatch Lite outlet survey. All key indicators captured in the provider interview are listed in Appendix 1. Key indicator definitions. The full provider interview and audit are in Appendix 7. Quantitative data collection - ACTwatch Lite : Quantitative Questionnaire. Full datasets are available upon request at the ACTwatch Lite website.

8.1 Outlet licencing and inspection

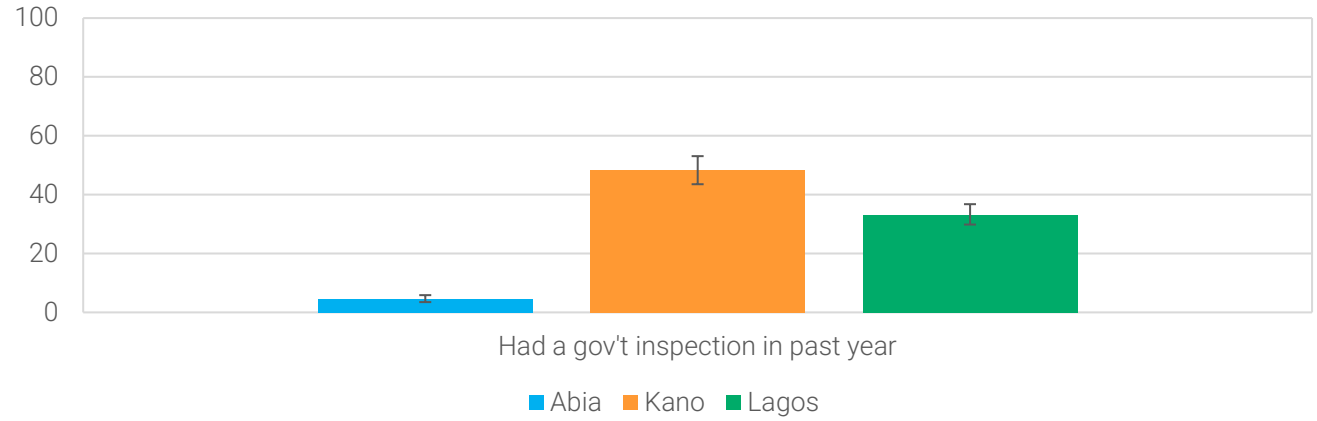
Figure 43. Proportion of outlets that had the relevant license and registration to sell medicines for the given outlet type overall and by outlet type



Total antimalarial stocking outlets: Abia=1408 Kano=1603 Lagos=926

Overall, more than 80% of retail outlets both reported and were able to show the correct license for operation. This varied by outlet type and state. Licensing was high for pharmacies and PPMVs, ranging from 86%-93%. Except for private not-for-profit facilities in Lagos (100% licensed) rates of reported/ observed licenses at labs and facilities were lower (ranging 24%-76%).

Figure 44. Proportion of outlets who have received a government inspection in the last year



Total antimalarial stocking outlets: Abia=1408 Kano=1603 Lagos=926

Outlets reporting a government inspection in the past year ranged from 48% in Kano, to 33% in Lagos and 4.5% in Abia.

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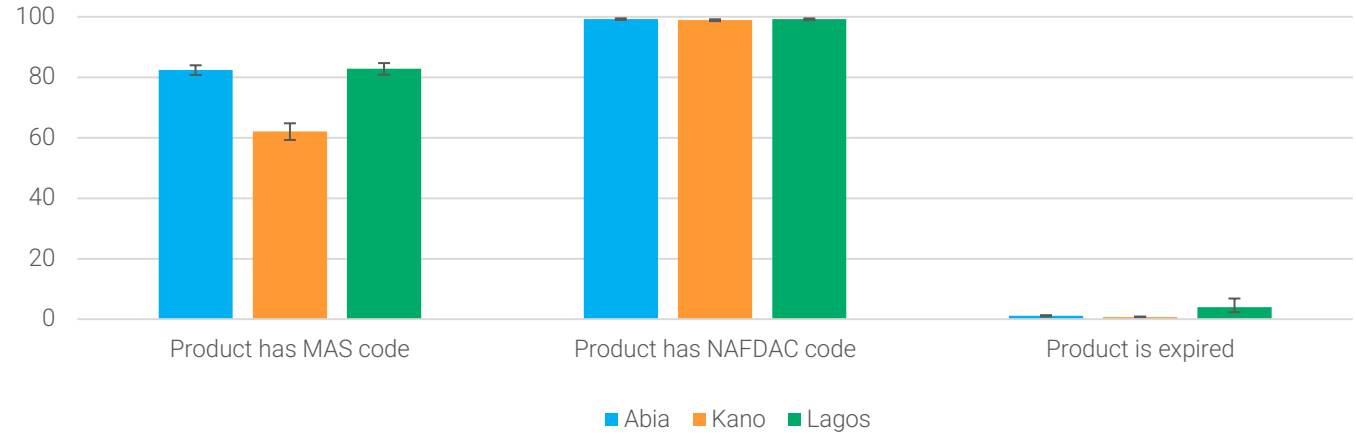
8.2 Quality control and compliance

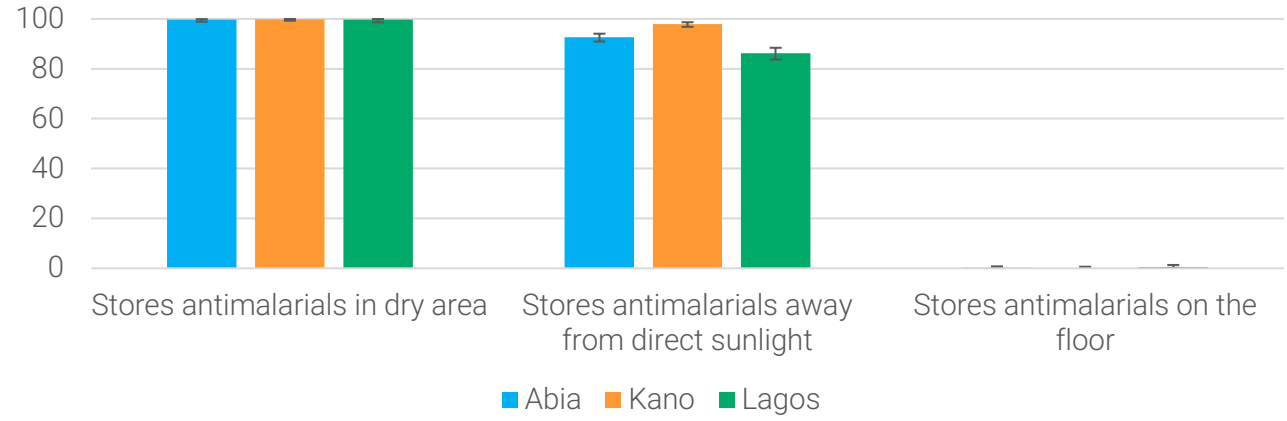
Figure 45. Proportion of products that meet a quality standards (represented here as (a) having a Mobile Authentication Service (MAS)[23] code, (b) NAFDAC code, (c) within expiration date), in each state



Products audited with QA information: Abia=8368 Kano=9438 Lagos=6425

The percentage of antimalarial products audited that had a MAS code was 62%, 82% and 83% in Kano, Abia and Lagos states, respectively. In all three states, 99% of products had a NAFDAC code on the packaging. In all three states, almost all products audited were found to be within their expiry date, with just 1%, 1% and 4% found to be expired in Abia, Kano and Lagos, respectively.

Figure 46. Proportion of outlets properly storing antimalarials (defined here as (a) in a dry area (b) away from direct sunlight, and (c) off the floor), in each state



Total antimalarial stocking outlets: Abia=1407 Kano=1546 Lagos=920

The way products are stored have the potential to affect their quality. In all three states, over 99% of outlets were found to be storing antimalarial drugs in a dry area, and fewer than 1% were found to store these products on the floor. Antimalarials were found to be stored out of direct sunlight in 93%, 98% and 86% of outlets in Abia, Kano and Lagos, respectively.

[23] *More information on MAS codes is available on the NAFDAC website*

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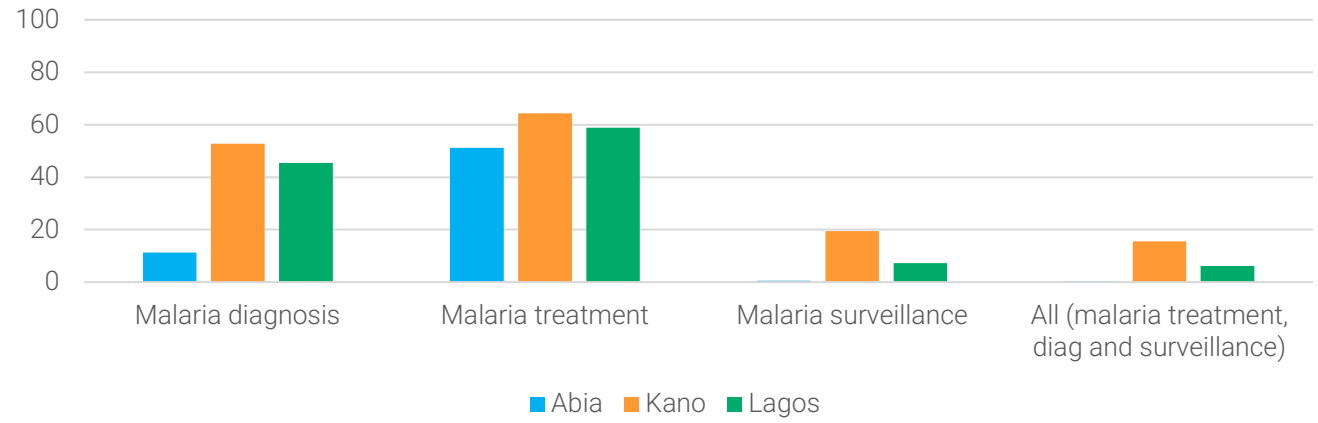
8.3 Respondent malaria knowledge

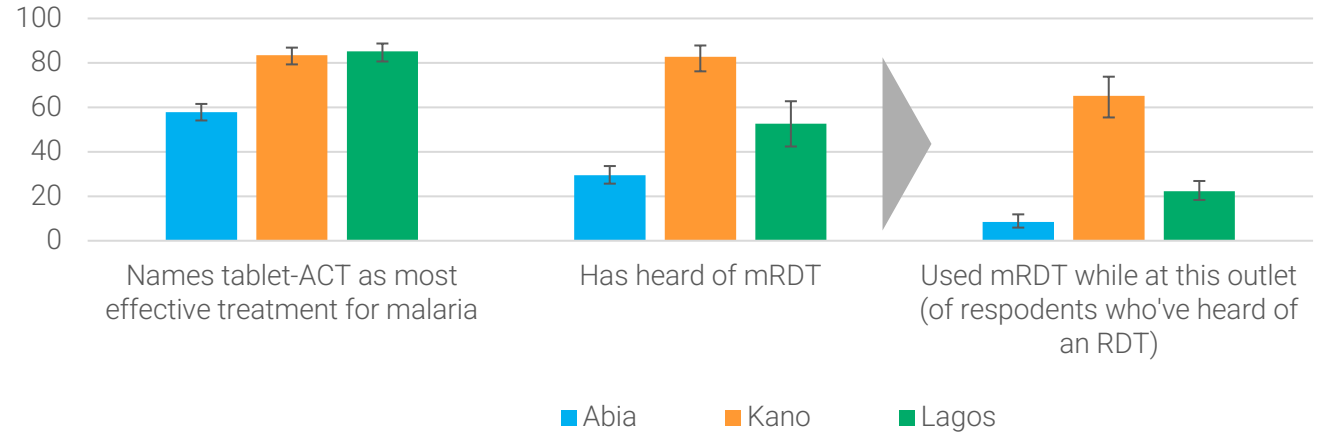
Figure 47. Proportion of outlets with at least one member of staff who have received any training on malaria; by training type/ topic (treatment, diagnosis, monitoring/ surveillance, or all) overall for each state



Total antimalarial stocking outlets reporting: Abia=1400 Kano=1641 Lagos=938

In all three states, outlets were most likely to report that a member of staff had received training in malaria treatment (51%, 64% and 59% in Abia, Kano and Lagos states, respectively). Fewer than 20% of outlets reported training in malaria surveillance (range: <1%, 19% and 7% in Abia, Kano and Lagos, respectively), while malaria diagnosis training was reported by 11%, 53% and 45% of outlets in those three states, respectively.

Figure 48. Malaria testing and treatment knowledge: Proportion of respondents who (a) name an ACT as the most effective treatment for non-severe malaria, (b) have heard of RDTs, and (c) have used an RDT while working at the given outlet, overall for each state



Total respondents reporting on malaria case management: Abia=1409 Kano=1679 Lagos=994

Respondents were asked about their case management knowledge and practices. Of outlets that completed a provider interview, 58%, 83% and 85% of respondents named a tablet ACT as the most effective treatment for uncomplicated malaria. Then, 29%, 83% and 53% of providers reported having previously heard of RDTs in Abia, Kano and Lagos, respectively. Among those who had previously heard of an RDT, 8%, 65% and 22% said that they had used one with a customer at this outlet in the three states, respectively.

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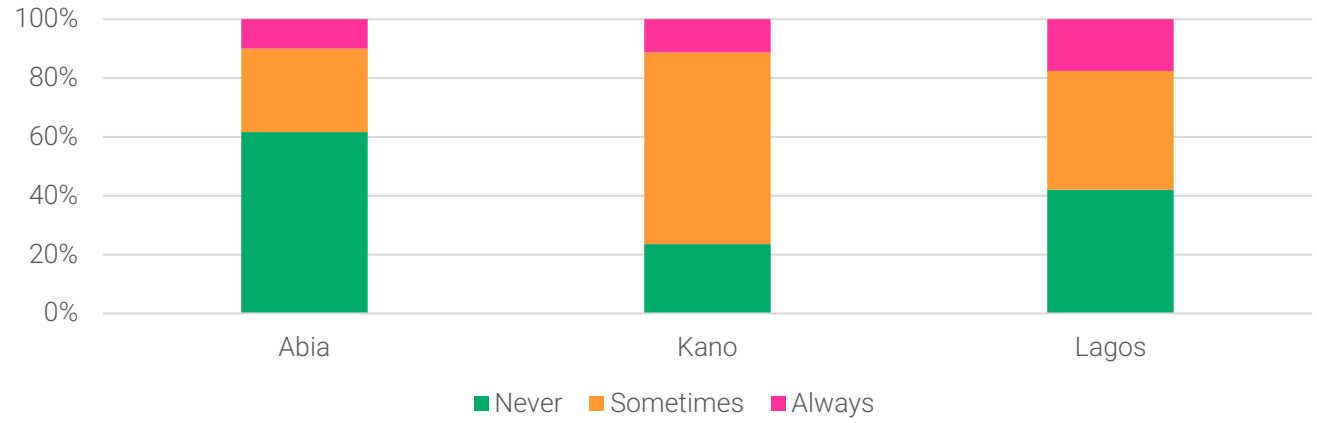
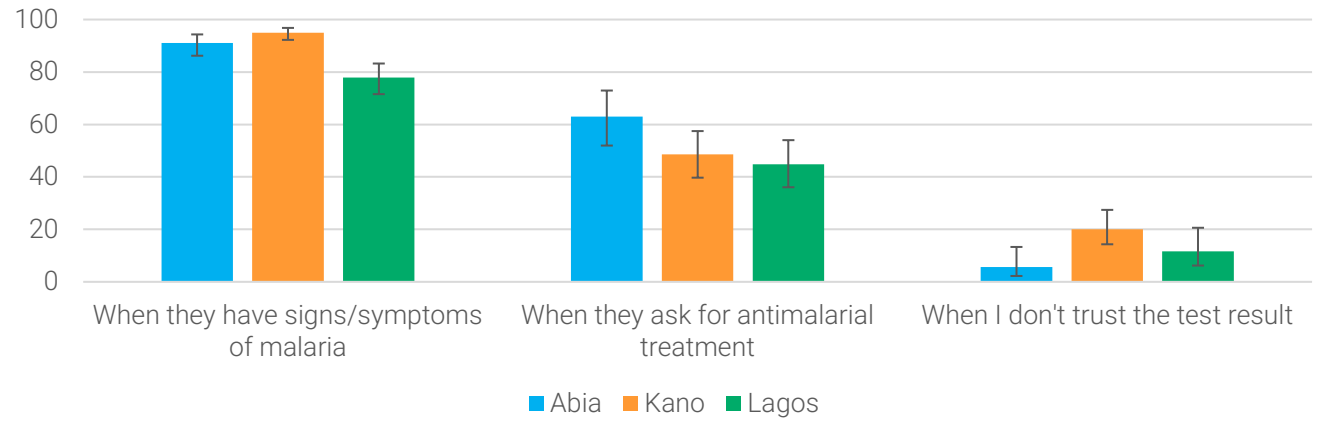
Figure 49. Proportion of respondents who have heard of malaria RDTs who would treat a patient for malaria despite a negative RDT test result, overall for each state



Total respondents reporting on malaria case management: Abia=1409 Kano=1679 Lagos=994

When asked whether they would treat a patient for malaria following a negative test result, 38%, 76% and 58% said "sometimes" or "always" in Abia, Kano and Lagos, respectively.

Figure 50. Proportion of respondents who may sometimes or always treat a negative test who reported the following reasons for doing so, overall for each state



Total respondents reporting on malaria case management: Abia=1409 Kano=1679 Lagos=994

Among those providers who said they would "sometimes" or "always" treat a patient for malaria following a negative test, the most common reason given was when they have signs or symptoms of malaria (reported by 86%, 97% and 76% of providers in Abia, Kano and Lagos, respectively).

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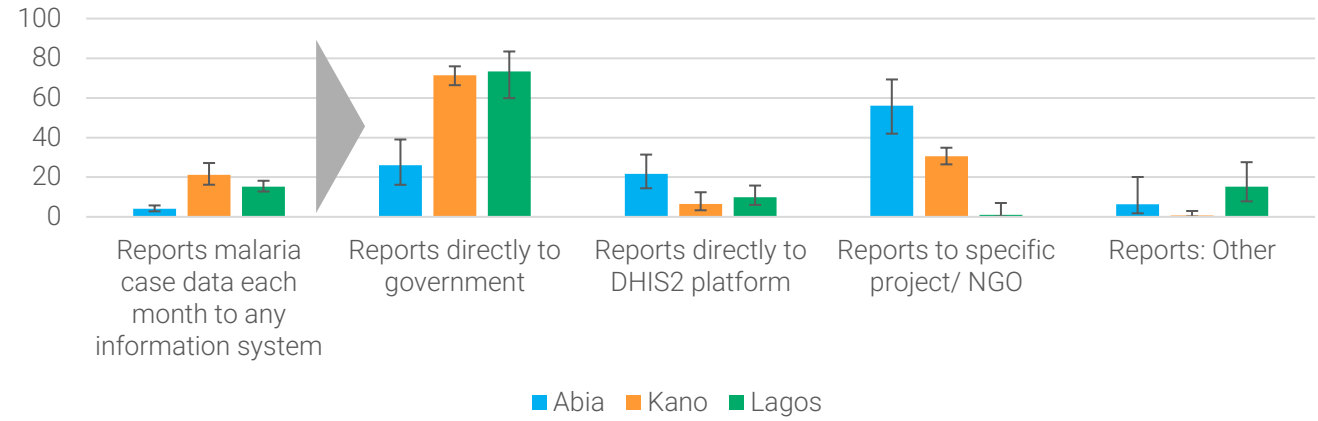
8.4 Outlet participation in monitoring

Figure 51. Proportion of outlets that report any information on malaria cases, of all outlets completing a provider interview; overall for each state



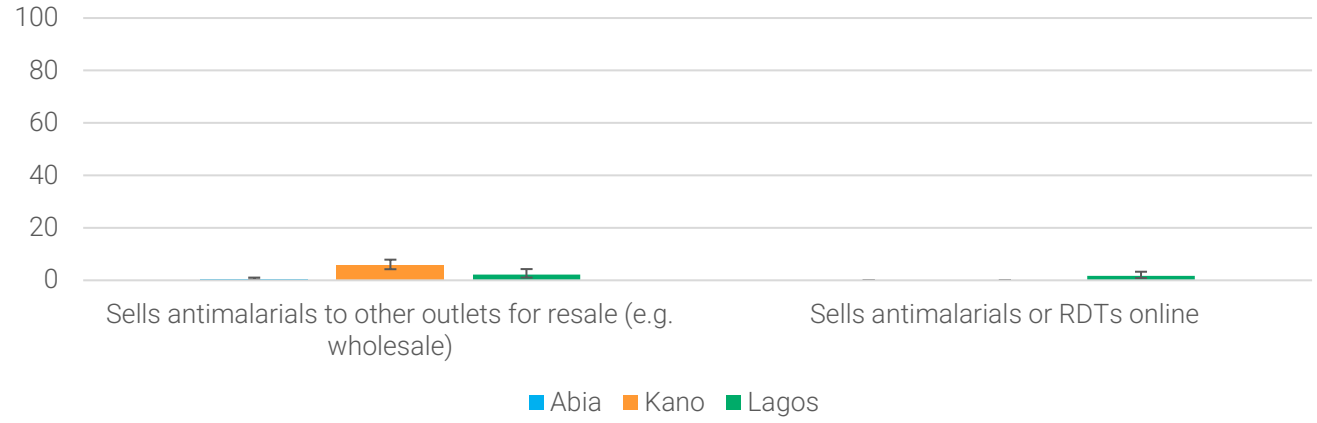
Total outlets completing provider interview: Abia=1400 Kano=1641 Lagos=938
Total reporting outlets: Abia=54 Kano=420 Lagos=135

The percentage of outlets that report malaria cases into any health information system was 3%, 29% and 13% in Abia, Kano and Lagos states, respectively.

Among those who report, the proportion reporting directly to government was 29%, 56% and 67% in those three states, respectively. A lower proportion said that they report directly to the DHIS2 platform (ranging from 27% in Abia to 8% in Kano, among those who report).

8.5 Business practices

Figure 52. Proportion of outlets that report (a) selling antimalarials or RDTs to be resold at another outlet (e.g. sells wholesale/ supplies other outlets/ sellers) and (b) the proportion of outlets that sell antimalarials or RDTs online



Total outlets reporting on sale practices: Abia=1422 Kano=1717 Lagos=931

Fewer than 10% of retail outlets report selling antimalarials or RDTs to other outlets for resale.
No outlets in Kano report selling online; however, 1% of outlets in Lagos (and <1% in Abia) sell online, most of which were pharmacies and for-profit facilities

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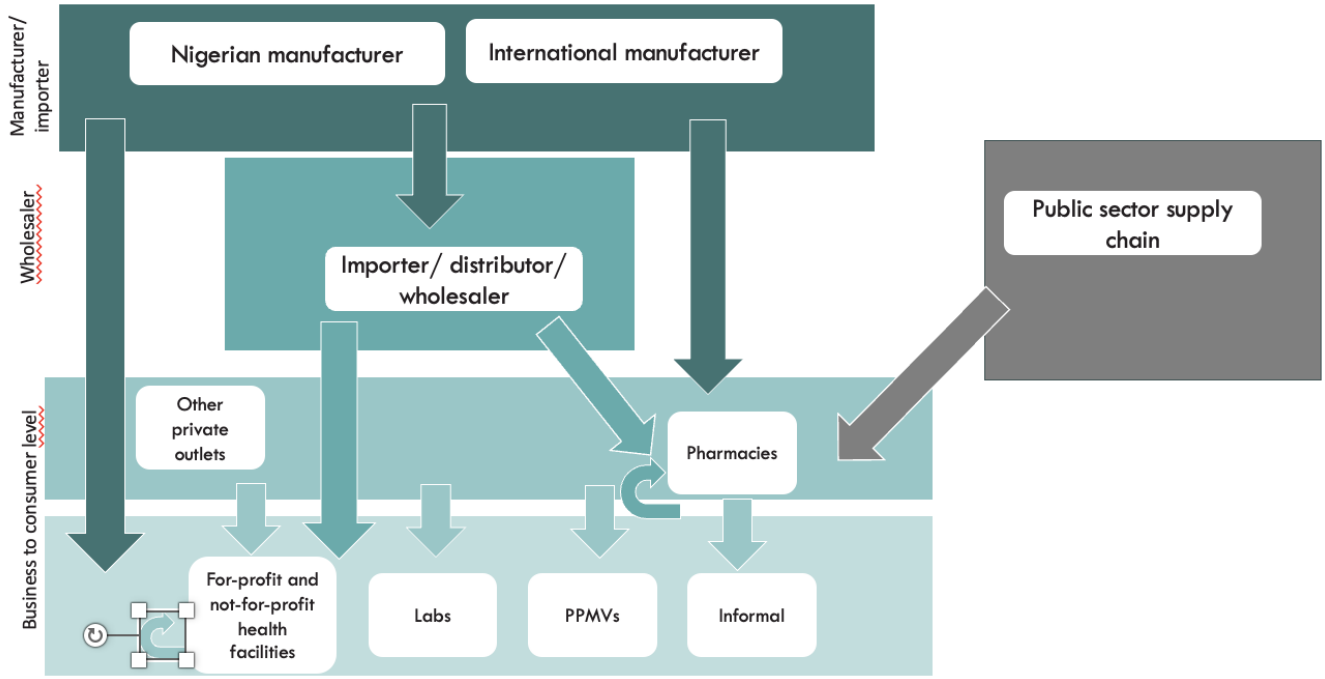
SUPPLY CHAIN DIAGRAM

Figure 52. Schematic of private sector supply chain, as reported by staff in antimalarial and RDT-stocking outlets



The supply chain consists of multiple tiers, including local and international manufacturers, importers, distributors, wholesalers, and various retail-level outlets such as pharmacies, PPMVs, laboratories, and informal vendors. Public sector procurement was also found to play a minimal role in private sector supply.

Survey respondents were asked to estimate the proportion of malaria commodities procured from each of their main supplier types (e.g. pharmacies, distributors, wholesalers, direct from importers or manufactures, etc.). These estimated proportions are presented by state in **Table 3 Antimalarial supplier types (reported by outlet), by strata**.

Table 3 Antimalarial supplier types (reported by outlet), by strata

ABIA

Proportion of outlets reporting being supplied antimalarials by each supply chain actor:	Not-for-profit facility N=15 % [95% CI]	For-profit facility N=17 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=3 % [95% CI]	PPMV N=1310 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1406 % [95% CI]	Wholesale N=29 % [95% CI]	Wholesale N=29 % [95% CI]
Importer	5.3 [0.8; 29]	0 -	21.4 [14.4; 30.5]	0 -	1 [0.5; 2.2]	8.2 [2.6; 22.7]	1.8 [0.9; 3.3]	57.4 [45.3; 68.8]	52.8 [34.4; 70.5]
International manufacturer	4.9 [1.2; 17.5]	4.8 [0.7; 25.2]	10.3 [4.5; 21.6]	0 -	0.9 [0.4; 1.9]	0 -	1.3 [0.8; 2.1]	9.8 [7.5; 12.8]	10.9 [7.2; 16.3]
Local manufacturer	4.9 [1.2; 17.5]	40.3 [18; 67.5]	11.1 [6.2; 19]	0 -	14.6 [10.6; 19.9]	0 -	14.6 [10.7; 19.6]	7.4 [4.5; 11.9]	6.2 [2.8; 13.3]
Distributor	60.8 [31; 84.3]	66.8 [38.6; 86.6]	79.2 [68.9; 86.8]	37.2 [4.2; 89]	59.9 [53.9; 65.6]	83.7 [58; 95]	60.7 [55; 66.2]	49.9 [40.5; 59.4]	53.4 [38.6; 67.6]
Pharmacy	4.2 [0.6; 24.2]	35.5 [12.7; 67.6]	0 -	0 -	5 [3.7; 6.7]	0 -	5.2 [3.9; 6.8]	0 -	0 -
Public sector supply chain	0 -	0 -	6.1 [2.2; 15.8]	0 -	3.3 [1.9; 5.8]	0 -	3.3 [1.9; 5.6]	0 -	0 -
Other private outlet/ shop	0 -	0 -	2.2 [0.4; 11]	0 -	2.1 [1.1; 3.8]	8.2 [2.6; 22.7]	2 [1.1; 3.7]	0 -	0 -

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KANO

Proportion of outlets reporting being supplied antimalarials by each supply chain actor:	Not-for-profit facility N=10 % [95% CI]	For-profit facility N=74 % [95% CI]	Pharmacy N=112 % [95% CI]	Laboratory N=68 % [95% CI]	PPMV N=1288 % [95% CI]	Informal N=53 % [95% CI]	Retail total N=1520 % [95% CI]	Wholesale N=15 % [95% CI]	Wholesale N=15 % [95% CI]
Importer	0 -	1.4 [0.2; 8.8]	0.2 [0; 1.6]	0 -	1.2 [0.4; 3.6]	0 -	1.1 [0.4; 3.1]	1.5 [0.2; 10.7]	10.7 [1.4; 49.4]
International manufacturer	0 -	0 -	1.6 [0.3; 9.4]	0 -	0.2 [0; 0.6]	0 -	0.2 [0.1; 0.6]	0 -	0 -
Local manufacturer	0 -	0.5 [0.1; 3.6]	0.2 [0; 1.4]	0 -	3.4 [1.3; 8.5]	5.6 [0.8; 31.1]	3.3 [1.4; 7.6]	1.5 [0.2; 10.7]	10.7 [1.4; 49.4]
Distributor	60.4 [17.2; 91.8]	46.3 [26.7; 67.1]	81.9 [60.8; 93]	57.1 [8.1; 95.3]	49.6 [43.3; 55.8]	54.8 [29.9; 77.6]	51.4 [46.4; 56.3]	82.2 [38.6; 97.1]	84.7 [52.1; 96.5]
Pharmacy	37.5 [7.3; 81.9]	74.3 [59.1; 85.2]	52.6 [38.5; 66.3]	42.9 [4.7; 91.9]	53.5 [45.1; 61.6]	40.5 [17.7; 68.3]	53.2 [45.8; 60.4]	48.5 [16.8; 81.4]	33.3 [12.8; 62.8]
Public sector supply chain	0 -	0 -	0 -	0 -	0.2 [0; 1.4]	0 -	0.2 [0; 1.2]	0 -	0 -
Other private outlet/ shop	0 -	4.9 [1.7; 13.5]	3.7 [1.2; 11.2]	0 -	14 [10.1; 19.1]	18.9 [6.2; 44.8]	13.5 [10.2; 17.7]	0 -	0 -
Any other source	0	1	1.6	0	5.3	3	4.8	0	0

LAGOS

Proportion of outlets reporting being supplied antimalarials by each supply chain actor:	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=80 % [95% CI]	Pharmacy N=288 % [95% CI]	Laboratory N=69 % [95% CI]	PPMV N=500 % [95% CI]	Informal N=59 % [95% CI]	Retail total N=892 % [95% CI]	Wholesale N=3 % [95% CI]	Wholesale N=3 % [95% CI]
Importer	0 -	0 -	0.4 [0.1; 1.8]	0 -	0 -	0 -	0.1 [0; 0.6]	0 -	0 -
International manufacturer	0 -	3.2 [0.6; 15.7]	1.6 [0.5; 4.8]	0 -	0.2 [0; 1.2]	0 -	0.8 [0.4; 1.7]	0 -	0 -
Local manufacturer	0 -	4.5 [1.3; 14.1]	10.1 [6.8; 14.9]	0 -	1 [0.5; 2.1]	0 -	4.1 [3.2; 5.2]	81 [26; 98.1]	81 [26; 98.1]
Distributor	54.5 [42.9; 65.7]	24.5 [15.7; 36.1]	60.6 [54.7; 66.2]	0 -	18.2 [15.4; 21.3]	16.6 [7.9; 31.5]	31.9 [27.9; 36.3]	0 -	0 -
Pharmacy	45.5 [34.3; 57.1]	75.1 [61.6; 85]	39.2 [27.8; 51.9]	0 -	87.3 [83.1; 90.5]	71.3 [59; 81.1]	70.5 [64.5; 75.8]	0 -	0 -
Public sector supply chain	0 -	0 -	0.2 [0; 1.3]	0 -	0.4 [0.1; 2.5]	0 -	0.3 [0.1; 1.3]	0 -	0 -
Other private outlet/ shop	0 -	6.1 [1.5; 21.3]	7.5 [5; 10.9]	0 -	2.8 [1.4; 5.7]	5.3 [1.7; 15.2]	4.6 [2.9; 7.3]	19 [1.9; 74]	19 [1.9; 74]
Any other source	0 -	0 -	4.9 [2.9; 8.2]	0 -	1.4 [0.5; 3.8]	3.8 [0.5; 24.5]	2.5 [1.5; 4.2]	0 -	0 -

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RESULTS SECTION B: IMPORTER, DISTRIBUTOR AND MANUFACTURER INTERVIEWS

This section presents results from Component B of the ACTwatch study. Semi-structured qualitative interviews with importers, distributors, and local pharmaceutical manufacturers were conducted to examine the private-sector supply chain for antimalarials and RDTs in Nigeria. Using thematic analysis, the study explored key issues such as regulatory challenges, economic factors, distribution networks, and product availability, with insights drawn from 45 in-depth interviews conducted in total in Abia, Kano, and Lagos states. We note that percentages provided here are indicative of relative frequency of response only within this purposive sample, and do not suggest representativity within a wider population or group.

Summary of key findings

Regulatory challenges, including delays, high fees, and inconsistent enforcement, affect all three states, hindering the timely introduction of new antimalarial products and impacting both availability and market competition. Economic factors such as volatile foreign exchange rates, high import duties, and general economic instability are common across all states, increasing the cost of antimalarials. This not only reduces profitability for companies but also makes products less affordable for consumers. Competition from counterfeit products and parallel markets remains a persistent challenge. Companies also struggle with managing fluctuating demand, particularly during malaria peak seasons. Logistics and distribution issues are widespread, with unreliable infrastructure and a heavy reliance on third-party logistics, which increase costs and introduce risks. Counterfeit products and inconsistent supply chains further affect the availability and quality of antimalarials in all three states, while inadequate storage facilities compromise product efficacy.

Company profiles and roles

Table 4 summarizes the key company characteristics. Overall, 45 companies were interviewed. Most of the respondents held the position of Managing Director (49%), with a median of 20 years of experience (range: 6–43 years). Only 20% of the companies imported mRDT, while all imported antimalarial drugs. Around 25% of the companies had an exclusive import agreement for malaria drugs. These characteristics did not vary significantly between states, except in Lagos State, where more than half of the companies (53%) had an exclusive import agreement.

Table 4 Qualitative interview results: Company characteristics

		Overall % (n/N)	Abia % (n/N)	Kano % (n/N)	Lagos % (n/N)
Role in the company	Customer care manager	2% (1/45)	-	-	7% (1/15)
	Chief executive officer	16% (7/15)	13% (2/15)	20% (3/15)	13% (2/15)
	Head of operation	4% (2/45)	7% (1/15)	-	7% (1/15)
	Head of procurement	2% (1/15)	-	-	7% (1/15)
	Managing director	49% (22/45)	53% (8/15)	47% (7/15)	47% (7/15)
	Marketing manager	2% (1/45)	-	-	7% (1/15)
	Medical director	7% (3/45)	-	20% (3/15)	-
	Pharmacist	18% (8/45)	26.% (4/15)	13% (2/15)	13% (2/15)
Years' experience in the sector	Median (IQR)	20 (14-30)	20 (12-30)	30 (15-33)	18 (13-36)
Antimalarial importation	Yes	100% (45/45)	100% (15/15)	100% (15/15)	100% (15/15)
mRDT importation	Yes	20% (9/45)	27% (4/15)	20% (3/15)	13% (2/15)
Antimalarial exclusive import agreement	Yes	24% (11/45)	13% (2/15)	7% (1/15)	53% (8/15)

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Product information

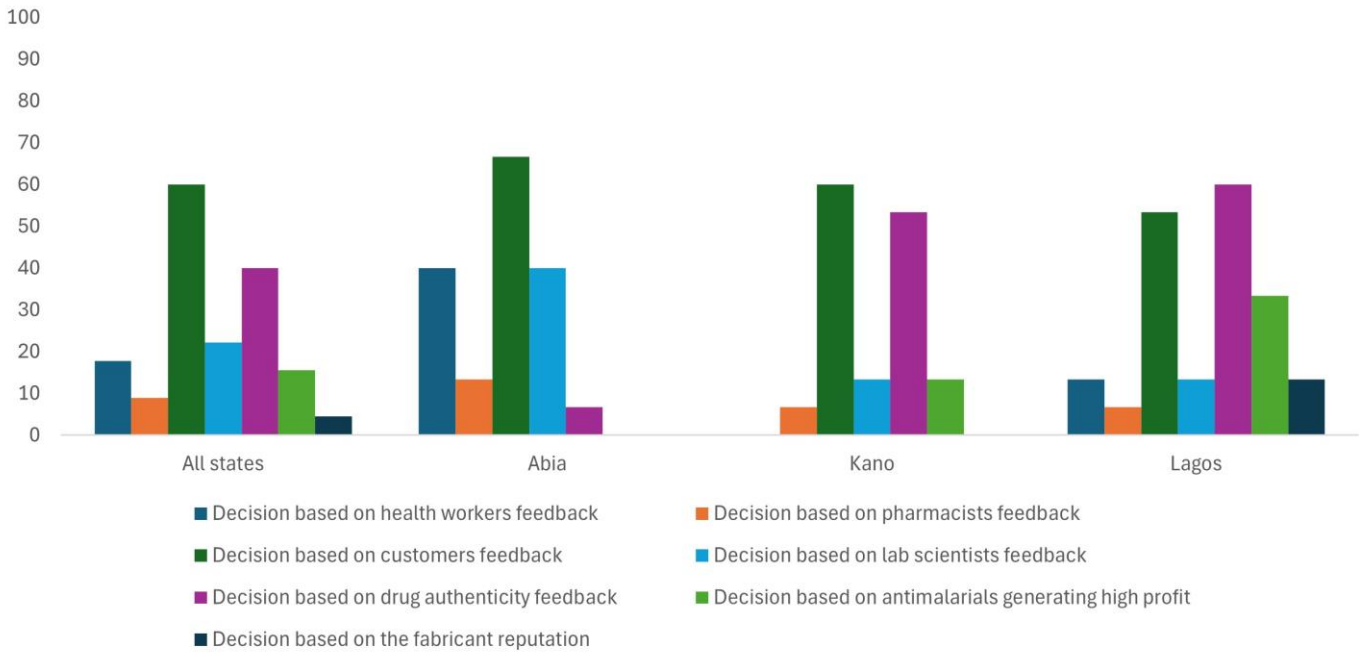
Suppliers in all three states manage a variety of antimalarial products, including RDTs, ACTs and other products for malaria case management. Most participants reported obtaining information about antimalarials, including which new brand of antimalarial to purchase from the manufacturing companies (53%) and sales representatives (29%) (Table 5).

Table 5 Qualitative interview results: Origin of information on malaria commodities

		n/N	Proportion
Antimalarials	Manufacturing company	24/45	53%
	Firm sale representatives	13/45	29%
	Health workers	5/45	11%
	Media	2/45	4%
	Pharmacovigilant market	1/45	2%
mRDTs	Manufacturing company	4/45	9%
	Customer	1/15	2%
	Health workers	1/45	2%
	Sales representatives	1/45	2%
	Other distributors	1/45	2%
	Not applicable	36/45	80%
	No response	1/45	2%

The main factors influencing the decision on which antimalarial to import were customer feedback (60%) and the authenticity of the drug (40%). These factors were consistent across the three states (Figure 53).

Figure 53. Qualitative interview results: Factors influencing the decision to import antimalarials



Pricing strategies

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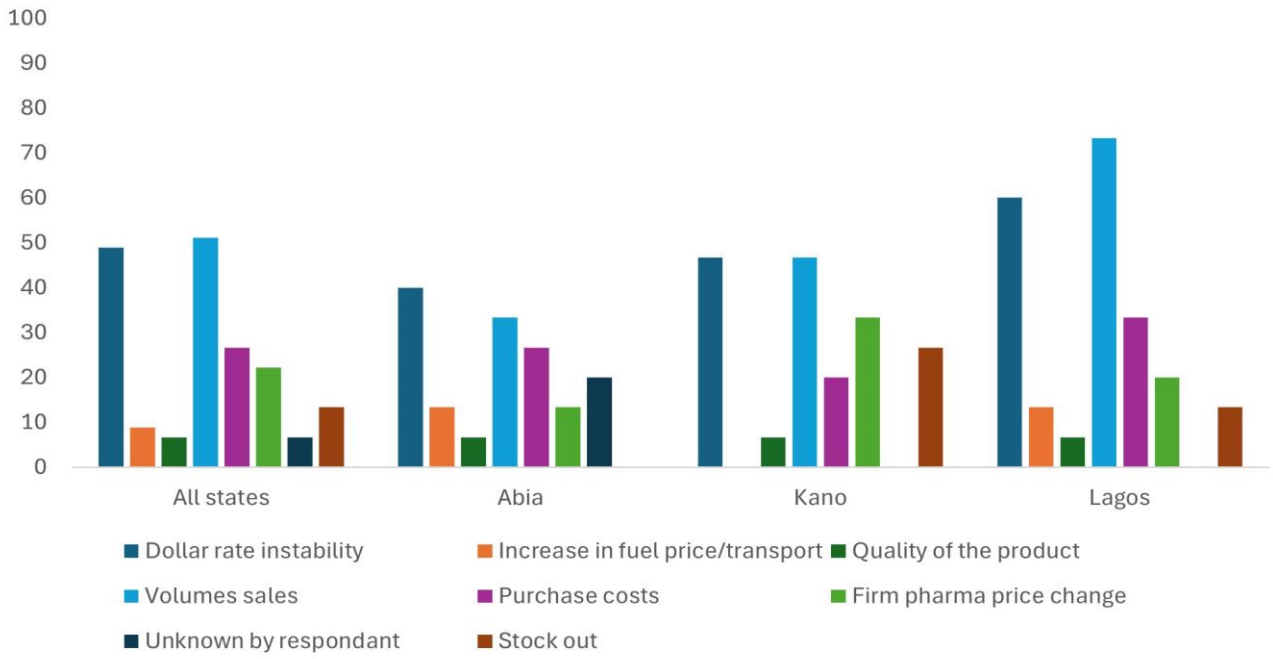
Prices were determined by input costs, market forces, and competitive pricing across all states. They were subject to change based on foreign exchange rates, market conditions, and customer types. More than 89% of wholesalers' importers had a process in place for determining the price of antimalarials. The main factors influencing price variability were sales volumes (51%), followed by instability in the dollar rate (49%), with significant variation across states (Figure 54).

Figure 54. Qualitative interview results: Factors influencing the price variability of antimalarials



Over two thirds of participants stated that company margins varied depending on the type of antimalarials sold. Additionally, a similar proportion of respondents agreed to provide information on the percentage of their company's sales revenue derived from antimalarial sales. On average, antimalarial sales contributed 34% of the company's total income (median: 25%, IQR: 10-50%, range: 1-95%). The percentages were similar across the states: median of 40% (IQR: 15-50) for Abia, median of 28% (IQR: 10-70) for Kano, and median of 20% (IQR: 5-50) for Lagos. Fewer than half (38%) of companies reported that the contribution of antimalarials to their total income has increased over the years.

Distribution network and practices

More than half (70%) of companies had their own distribution centers or wholesalers in Nigeria, i.e., branches (Table 6).

Table 6 Qualitative interview results: Distribution networks

		n/N	Proportion
Company has its own distribution centers	Yes	32/44	70%
Number of branches	0	12/42	29%
	1	14/42	33%
	2	8/42	19%
	≥3	8/42	19%
Size of your distribution network	1	3/27	11%
	2	1/27	4%

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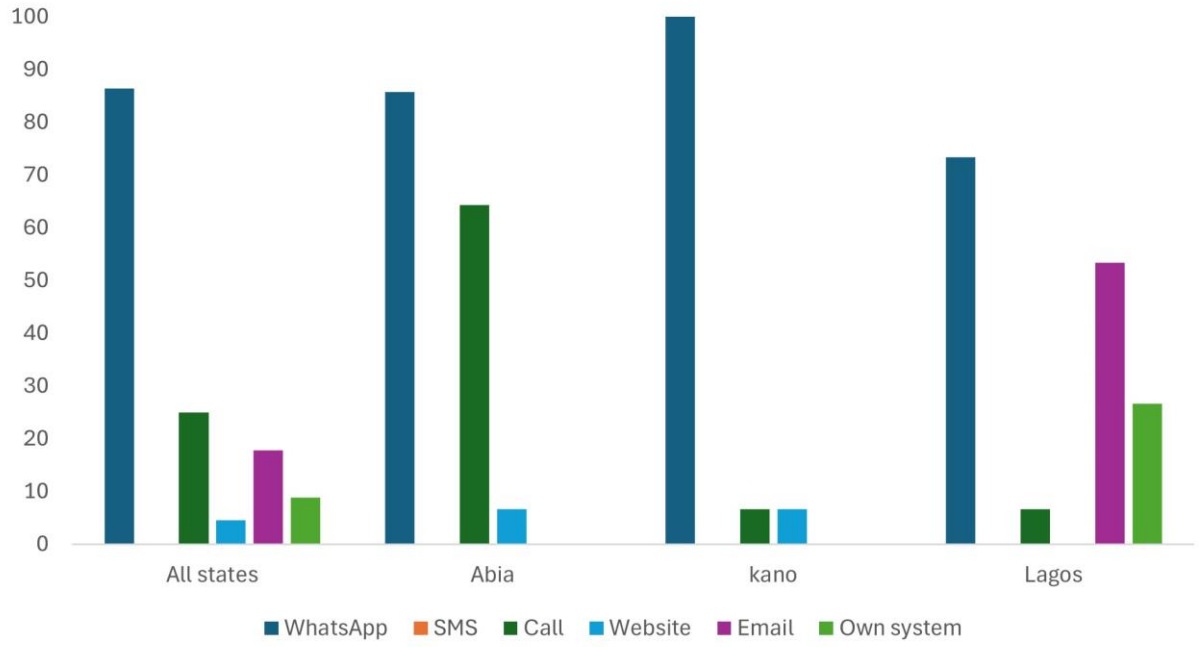
3	6/27	22%
4	4/27	15%
5	6/27	22%
≥6	7/27	26%

Nearly all companies, 96% (43/45) reported taking orders from customers (wholesale/retail) through online platforms or channels. WhatsApp was the most commonly used platform across all states (86%). Kano and Lagos showed higher reliance on calls and emails, while the use of SMS and own systems is minimal across the three states (Figure 55). Most respondents, 64% (29/45), reported utilizing delivery and pick-up methods to reach customers with their products. However, 24% (11/45) exclusively delivered while another 11% (5/45) exclusively relied on customer pickup. Only 24% (11/45) of companies had minimum order requirements for wholesale customers purchasing antimalarials outside their corporate network.

Figure 55. Qualitative interview results: Proportion of customers' orders through online platforms



Competition

More than three quarters, 80% of respondents report experiencing competition, and 87% report that companies cooperate with industry partners. The forming of associations is the most common form on cooperation (reported by 69%). This competition status is quite similar across the three states.

Regulatory Challenges

Most companies (80%) found regulatory requirements to be reasonable, and 66% stated that regulations have positively influenced their business. The biggest challenges when importing antimalarials were price inflation due to the exchange rate of the dollar (31%) and the widespread issue of counterfeit drugs (24%). Figure 56 presents the various challenges faced by wholesalers and importers in the antimalarial business.

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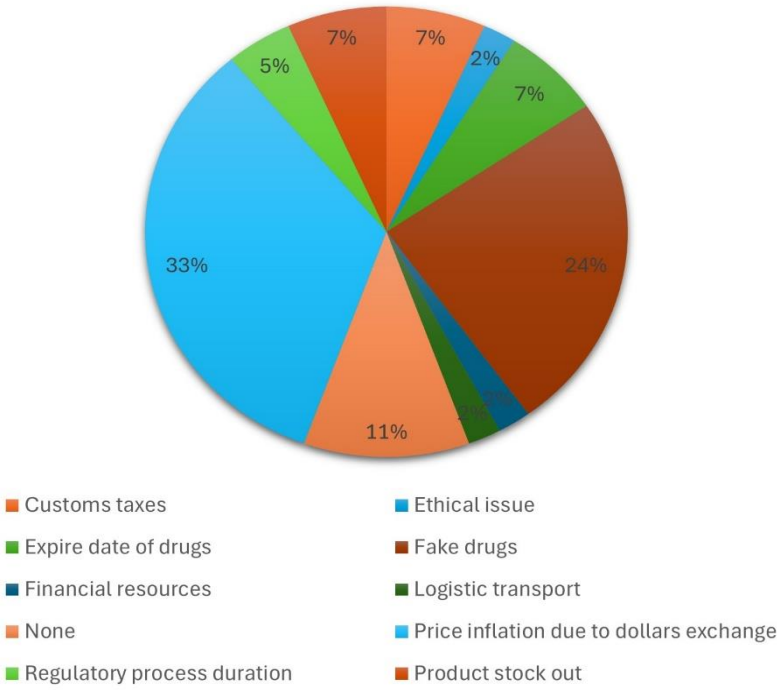
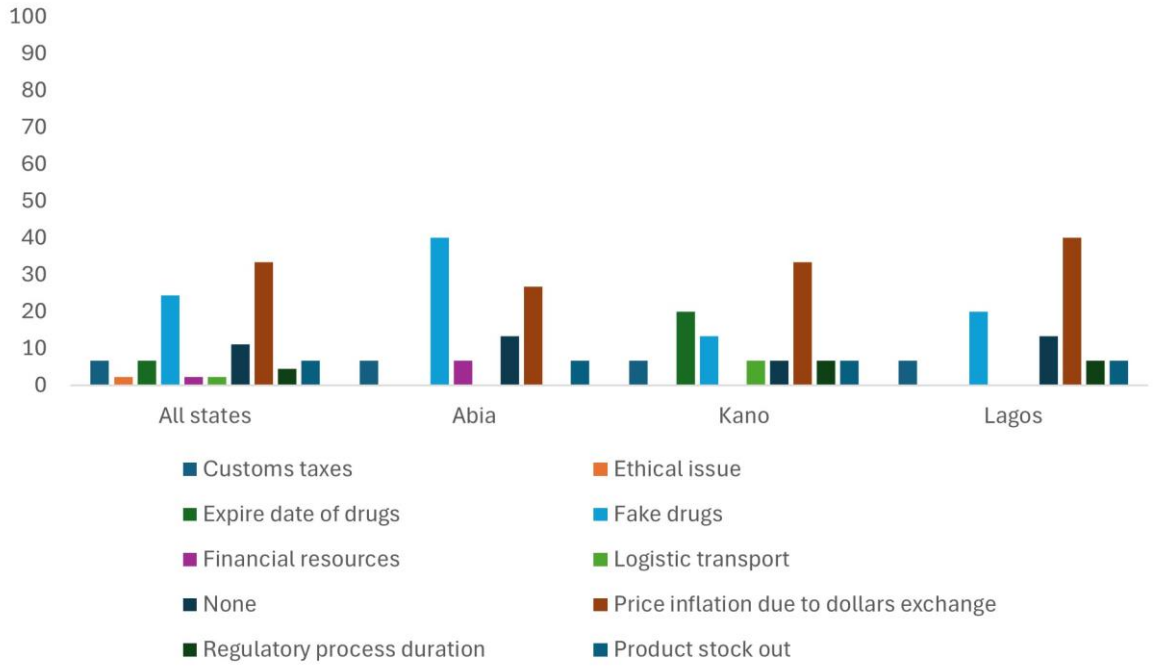
Figure 56. Qualitative interview results: Challenges in the importation of antimalarials



The challenges varied between states, with counterfeit drugs being the main issue in Abia, while price inflation was the most significant challenge in Kano and Lagos (Figure 57).

Figure 57. Qualitative interview results: Challenges in the importation of antimalarials according to the states



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The following recommendations emerged during the supply chain interviews:

For policymakers from Ministry of Health and Federal Government

- simplify the license renewal process and reduce regulatory fees.
- increase human and financial resources within regulatory bodies to ensure consistent enforcement.
- implement policies to stabilize forex markets and reduce inflation.
- provide incentives for local manufacturing to reduce dependency on expensive imports.
- provide support for tax reductions or subsidies on essential medicines.
- invest in infrastructure improvements to enhance the reliability of the supply chain.
- strengthen regulatory enforcement to combat counterfeit products.
- implement stringent quality control measures throughout the supply chain.

For public health stakeholders

- strengthen regulatory enforcement and consumer education to reduce the prevalence of counterfeit products.
- encourage companies to focus on brand reputation and quality as competitive differentiators.
- foster partnerships with reliable logistics providers to improve delivery efficiency.

For wholesale importers

- improve transparency in enforcement to combat corruption and maintain market integrity.
- improve inventory management and demand forecasting systems to better respond to seasonal variations.
- leverage technology for real-time tracking and inventory management.
- invest in proper storage facilities to maintain the efficacy and availability of antimalarials.

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RESULTS SECTION C: E-PHARMACY SCOPING RESULTS

This section presents results from Component C of the ACTwatch study, a scoping of e-pharmacies in Nigeria. The use of online pharmacies in Nigeria is thought to be an emerging trend. This scoping exercise aimed to assess the feasibility of collecting data in this part of the private sector, the availability of antimalarial products on e-pharmacy sites, to understand their operational scope, and explore the extent to which the private sector is utilizing online channels for procurement and distribution:

Survey findings

First, findings from the ACTwatch Lite retail survey found that fewer than 2% of surveyed outlets reported selling or buying malaria commodities online. Survey data does not yet reflect the widespread adoption of online platforms by retail outlets or consumers. This may be influenced by regulatory barriers, logistical challenges, and/or consumer trust in adopting/ using online platforms.

Scoping findings

The pharmacies identified vary in their business models, with some operating exclusively online and others operating as physical pharmacies with a website for online purchasing. Many emphasize convenience, affordability, and accessibility, with some offering additional healthcare services such as virtual consultations and home delivery. Transparency of product sourcing and regulatory compliance was inconsistent across platforms.

The review provided some insights into the availability and pricing of antimalarial medicines. Products such as Coartem, Lonart, and Amatem were commonly listed, with variations in brand and formulation. Artemether Lumefantrine tablets were the most frequently found product. Prices varied greatly across platforms, with some discrepancies between online and offline retail pricing. Some platforms provided detailed product information, including active ingredients and manufacturer details, while others lacked clarity regarding supply chain integrity. A audit results are presented below:

Select audited products

e-pharmacy	Brand	Manufacturer	Dose form:	Active ingredients:	Strength:	Type of package:	Pack size:	Price:
A	Amatem Softgel	Not stated	Tablet	Artemether Lumefantrine	80mg/480mg	Individual pack	6	₦4,070.00
	Amatem Forte Softgel	Not stated	Tablet	Artemether Lumefantrine	20mg/120mg	Individual pack	18	₦2,273.00
	Coartem	Not stated	Tablet	Artemether Lumefantrine	20mg/120mg	Individual pack	18	₦5,200.00
	Coartem Dispersible	Not stated	Tablets (dispersible)	Artemether Lumefantrine	20mg/120mg	Individual pack	12	₦5,029
	Lokmal Suspension 60ml	Not stated	Powder	Artemether Lumefantrine	20mg/120mg	Bottle	60ml	₦1,315
B	Coartem	Not stated	Tablets	Artemether Lumefantrine	20mg/120mg	Individual pack	24	₦8,350
	Coartem	Not stated	Tablets	Artemether Lumefantrine	80mg/480mg	Individual pack	6	₦7,850
C	Coartem Dispersible	Not stated	Tablets (dispersible)	Artemether Lumefantrine	20mg/120mg	Individual pack	6	₦3,500
	Coartem	Novartis	Tablets	Artemether Lumefantrine	80mg/480mg	Individual pack	6	₦10,500
D	Coartem Adult 80/480	Not stated	Tablets	Artemether Lumefantrine	80mg/480mg	Individual pack	6	₦12,500
	Lonart Syrup 20/120mg By 60ml	Not stated (no image)	Syrup	Not stated (no image)	20mg/120mg	Not stated (no image)	60ml	₦3,100
	Lonart 20/120mg Tablets 24 Tablets	Not stated (no image)	Tablets	Not stated (no image)	20mg/120mg	Not stated (no image)	24	₦3,100
	Amalar 500/25mg 3 Tablets - Asset Pharmacy	Not stated (no image)	Tablets	Not stated (no image)	500mg/25mg	Not stated (no image)	3	₦400
E	CAMOSUNATE ADULT TABLET	Not stated	Tablets	Artesunate Amodiaqiune	100mg/300mg	Individual pack	12	₦1,600

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	(14 YEARS AND ABOVE)							
	MALARONE TABLETS	Not stated	Tablets	Atovaquone and proguanil	250mg/100mg	Individual pack	12	₦5,600

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Discussion

The scoping exercise highlighted several challenges in assessing, monitoring, and understanding the scope and operations of the online pharmacy sector in Nigeria. Given learnings from the ACTwatch Lite study in Nigeria as a whole, regulatory hurdles, including licensing complexities, inconsistent enforcement, and concerns over and unstable economy and counterfeit medicines, pose significant barriers to growth. However, e-pharmacies present a potential opportunity to use technology to improve access to quality medicines, enhance supply chain efficiency, and increase transparency. Strengthening regulatory oversight and ensuring consumer protection will be key to the sector's responsible growth. Further research is needed to assess long-term trends and the role of e-pharmacies in malaria commodity distribution.

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DATA TABLES

1 MARKET COMPOSITION

1.1 Market composition among antimalarial-stocking outlets

Table 7. The distribution (proportion) of outlets of a given type among outlets with at least one antimalarial in stock on the day of the survey

ABIA

N=1408	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Antimalarials:	0.9 [0.5; 1.5]	1.1 [0.6; 2]	3.4 [1.7; 6.4]	0.2 [0.1; 0.6]	93.7 [91; 95.6]	0.8 [0.3; 2.3]

Abia Footnote: outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 6

KANO

N=1543	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Antimalarials:	0.3 [0.1; 0.8]	4.7 [3.5; 6.2]	9.5 [6.9; 12.8]	0 [0; 0.3]	84.3 [81.6; 86.7]	1.2 [0.5; 2.6]

Kano Footnote: outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 6

LAGOS

N=916	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Antimalarials:	0.3 [0.1; 1.6]	7.3 [5.4; 9.8]	31.9 [22.2; 43.6]	0 [0; 0]	55.6 [43.8; 66.8]	4.8 [3.4; 6.8]

Lagos Footnote: outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 10

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Table 8. The distribution (proportion) of outlets of a given type among outlets with at least one antimalarial in stock on the day of the survey, disaggregated by urban and rural areas

ABIA	Rural N=348						Urban N=1060					
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Anti-malarials:	0.8 [0.3; 2.6]	0.7 [0.2; 2.4]	1.2 [0.5; 2.7]	0 [0; 0]	96.3 [92.9; 98.1]	1 [0.3; 2.7]	1.5 [0.9; 2.4]	1.3 [0.8; 2]	4.3 [1.8; 10.1]	0.1 [0; 0.4]	92.3 [87.9; 95.2]	0.4 [0.1; 2.6]

abia Footnote: Rural outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 3 ; Urban outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 3

KANO	Rural N=340						Urban N=1202					
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal
N=1543	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Anti-malarials:	0.4 [0.1; 1.6]	1.6 [0.7; 3.8]	4.2 [1.7; 10.2]	0 [0; 0]	88.6 [84.1; 92]	5.1 [2.2; 11.4]	1.1 [0.4; 2.8]	6.9 [4.7; 10]	9.2 [6.9; 12.2]	0.1 [0; 0.6]	80.7 [74.8; 85.5]	2 [1.1; 3.5]

kano Footnote: Rural outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 0 ; Urban outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 6

LAGOS	Rural N=150						Urban N=766					
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal
N=916	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Anti-malarials:	0 [0; 0]	7.3 [2.6; 18.5]	22.4 [13.1; 35.6]	0 [0; 0]	66.5 [49.1; 80.4]	3.8 [2.5; 5.6]	0.3 [0.1; 1.3]	6.4 [4.2; 9.7]	36.5 [24.4; 50.6]	0 [0; 0]	46.4 [36.1; 57]	10.3 [3.5; 27]

lagos Footnote: Rural outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 0 ; Urban outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 10

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1.2 Market Composition among outlets with malaria blood-testing

Table 9. The distribution (proportion) of outlets of a given type among outlets with malaria blood testing (microscopy or RDT) available on the day of the survey

ABIA

N=32	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Malaria blood testing:	34.4 [22.9; 48.2]	26 [13.8; 43.5]	19.5 [8; 40.3]	4.7 [1; 19.2]	15.5 [6.3; 33.2]	0 [0; 0]

Abia Footnote: outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 2

KANO

N=603	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Malaria blood testing:	1.5 [0.9; 2.5]	12.9 [9.9; 16.5]	9.5 [6.8; 13]	11.9 [7.6; 18]	62.7 [57.1; 68]	1.6 [0.6; 4.1]

Kano Footnote: outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 1

LAGOS

N=129	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Malaria blood testing:	1.1 [0.2; 6]	20.7 [12.3; 32.6]	15.8 [9.7; 24.7]	58 [43.8; 71]	4.5 [1.5; 12.3]	0 [0; 0]

Lagos Footnote: outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 2

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Table 10. The distribution (proportion) of outlets of a given type among outlets with malaria blood testing (microscopy or RDT) available on the day of the survey, disaggregated by urban and rural areas

ABIA	Urban N=6						Rural N=26					
N=32	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Malaria blood testing:	40.2 [26.3; 55.7]	34.4 [11.3; 68.5]	6.1 [0.7; 36.5]	19.3 [4; 57.5]	0 [0; 0]	0 [0; 0]	42.4 [30.5; 55.3]	22.1 [15.9; 29.9]	27.1 [15.4; 43.1]	2.7 [0.4; 17.5]	5.8 [1.5; 20]	0 [0; 0]

Abia Footnote: Rural outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 1 ; Urban outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 1

KANO	Urban N=138						Rural N=464					
N=603	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Malaria blood testing:	1 [0.3; 3.7]	2.8 [1; 7.1]	2.3 [0.8; 6.4]	14.6 [4.8; 37.1]	75.9 [62.1; 85.8]	3.4 [1; 10.7]	2.8 [1.1; 6.7]	15.3 [10.9; 21.1]	8.5 [5.5; 12.8]	12.8 [9; 17.7]	58.5 [50.2; 66.4]	2.2 [0.8; 5.7]

Kano Footnote: Rural outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 0 ; Urban outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 1

LAGOS	Urban N=23						Rural N=106					
N=129	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]
Malaria blood testing:	0 [0; 0]	48.9 [11.3; 87.8]	5.2 [1.1; 21.2]	40.2 [11.1; 78.3]	5.7 [1.1; 24.7]	0 [0; 0]	2.2 [0.4; 10.6]	26.4 [20.5; 33.3]	22.3 [14.3; 33.2]	47.5 [35.4; 60]	1.5 [0.4; 5.4]	0 [0; 0]

Lagos Footnote: Rural outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 0 ; Urban outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 2

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2 AVAILABILITY

2.1 Availability of antimalarials in all screened outlets

Table 11. Proportion of all outlets enumerated that had any antimalarial in stock at the time of the survey visit

ABIA

	Not-for-profit facility N=16 % [95% CI]	For-profit facility N=17 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=3 % [95% CI]	PPMV N=1323 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1422 % [95% CI]	Wholesale N=29 % [95% CI]
Any antimalarial	96.6 [80.9; 99.5]	95.8 [76.8; 99.4]	100 [100; 100]	38.1 [5.9; 85.8]	99.1 [97.9; 99.6]	100 [100; 100]	98.9 [97.8; 99.5]	100 [100; 100]
Any ACT	92.5 [74.3; 98.2]	69.2 [40.8; 87.9]	100 [100; 100]	38.1 [5.9; 85.8]	98 [96.7; 98.7]	100 [100; 100]	97.5 [96.2; 98.4]	100 [100; 100]
Artemether lumefantrine	92.5 [74.3; 98.2]	69.2 [40.8; 87.9]	100 [100; 100]	38.1 [5.9; 85.8]	97.6 [96.2; 98.5]	100 [100; 100]	97.2 [95.6; 98.2]	100 [100; 100]
Artesunate amodiaquine	14.1 [3.1; 45.4]	2.3 [0.4; 13]	52.8 [44.1; 61.3]	0 -	10.2 [7.8; 13.3]	5.4 [0.7; 31.2]	11.5 [8.6; 15.4]	8.6 [2.5; 25.6]
Artemisinin piperaquine	0 -	0 -	25.2 [14.3; 40.5]	0 -	1.6 [0.6; 4.3]	5.4 [0.7; 31.2]	2.4 [1; 5.6]	0 -
Dihydroartemisinin piperaquine	0 -	8.2 [1.9; 28.9]	71.9 [56.7; 83.3]	0 -	22.2 [18; 27.1]	19 [6.3; 45.1]	23.3 [18.3; 29.3]	42.7 [34.9; 51]
Arterolane piperaquine	0 -	0 -	21 [13.2; 31.7]	0 -	0.7 [0.2; 2.7]	0 -	1.4 [0.5; 3.4]	0 -
Any other ACT	0 -	0 -	2 [0.7; 5.4]	0 -	0.1 [0; 0.4]	0 -	0.1 [0; 0.8]	0 -
Stocks nationally approved ACT	96.6 [80.9; 99.5]	75.3 [43.6; 92.4]	98.8 [91; 99.8]	38.1 [5.9; 85.8]	92.6 [89.8; 94.7]	100 [100; 100]	92.6 [90; 94.6]	97.5 [81.2; 99.7]
Stocks QA ACT	0 -	0 -	21 [13.2; 31.7]	0 -	6.6 [4.4; 9.8]	0 -	6.9 [4.8; 9.7]	0 -
ACT that is both WHO PQ and nationally approved	0 -	0 -	0 -	0 -	0 [0; 0.2]	0 -	0 [0; 0.2]	0 -
ACT that is WHO PQ but not nationally approved	0 -	0 -	21 [13.2; 31.7]	0 -	6.6 [4.4; 9.8]	0 -	6.9 [4.8; 9.7]	0 -
ACT that is nationally approved but not WHO PQ	81.8 [52; 94.9]	69.2 [40.8; 87.9]	98.8 [91; 99.8]	38.1 [5.9; 85.8]	92.1 [89.3; 94.3]	100 [100; 100]	91.9 [89.2; 93.9]	97.5 [81.2; 99.7]
Stocks ACT not QA or nationally approved	82.4 [58.2; 94]	29.4 [14.1; 51.4]	85.8 [74.8; 92.5]	0 -	77.4 [73.6; 80.8]	59.8 [16.3; 91.9]	76.9 [73.2; 80.3]	87.2 [76.2; 93.6]

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ABIA

	Not-for-profit facility N=16 % [95% CI]	For-profit facility N=17 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=3 % [95% CI]	PPMV N=1323 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1422 % [95% CI]	Wholesale N=29 % [95% CI]
Two or more ACTs	14.1 [3.1; 45.4]	8.2 [1.9; 28.9]	82 [71.8; 89.1]	0 -	26.9 [21.7; 32.8]	19 [6.3; 45.1]	28.2 [22.2; 35.2]	42.7 [34.9; 51]
Non-artemisinins	30.9 [11.3; 61.1]	64.8 [40.3; 83.4]	68.9 [58.6; 77.7]	0 -	42.9 [38.1; 47.9]	27.7 [11.2; 53.9]	43.7 [39.2; 48.3]	42.7 [34.9; 51]
Oral quinine	0 -	2.3 [0.4; 13]	10 [6; 16.3]	0 -	1.8 [1; 3.1]	8.2 [2.6; 22.7]	2.1 [1.3; 3.2]	0 -
Chloroquine	13.6 [3.5; 40.5]	20.7 [7.3; 46.5]	32.3 [19.8; 48]	0 -	27.1 [23; 31.7]	8.7 [1.3; 41.4]	26.9 [22.9; 31.2]	30.4 [24.4; 37.2]
Sulfadoxine pyrimethamine	5.8 [1.3; 22.5]	28.9 [10.7; 58.2]	39.9 [25.9; 55.8]	0 -	17.9 [14.7; 21.6]	10.9 [1.4; 52.2]	18.5 [15.2; 22.3]	18.2 [9.7; 31.4]
Sulfadoxine pyrimethamine amodiaquine	2.7 [0.4; 15.3]	6.7 [1.9; 20.7]	0 -	0 -	1.8 [1.1; 3]	0 -	1.8 [1.1; 3]	0 -
Other non-artemisinins	2 [0.3; 12.8]	14.6 [4.1; 40.8]	9.5 [2.4; 31.1]	0 -	2.8 [1.6; 4.9]	0 -	3.2 [1.9; 5.3]	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	47.1 [20; 76.1]	47.4 [22.2; 73.9]	31.6 [23.7; 40.6]	0 -	3.4 [2.2; 5.3]	8.2 [2.6; 22.7]	5.4 [4.1; 7.1]	13.5 [11.3; 16.1]
Treatment for severe malaria	47.1 [20; 76.1]	47.4 [22.2; 73.9]	31.6 [23.7; 40.6]	0 -	3.4 [2.2; 5.3]	8.2 [2.6; 22.7]	5.4 [4.1; 7.1]	13.5 [11.3; 16.1]
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	6.8 [1.7; 23.8]	5.9 [0.9; 30.3]	11.5 [5; 24.1]	0 -	0.4 [0.1; 1.2]	8.2 [2.6; 22.7]	0.9 [0.4; 2.3]	3.7 [2.2; 6]
Injectable artemether	40.4 [15.8; 70.9]	39.2 [15.9; 68.6]	29.5 [21; 39.7]	0 -	2.1 [1.2; 3.5]	0 -	3.9 [2.8; 5.3]	9.8 [7.5; 12.8]
Injectable arteether	29.6 [9.7; 62.2]	28.9 [10.6; 58.2]	22.5 [14.2; 33.6]	0 -	1.6 [0.9; 2.9]	0 -	3 [1.9; 4.6]	9.8 [7.5; 12.8]
Injectable quinine	20.9 [6.7; 49.2]	22 [5.5; 57.5]	21.3 [13.9; 31.2]	0 -	0.5 [0.2; 1]	8.2 [2.6; 22.7]	1.7 [1; 2.8]	3.7 [2.2; 6]

Abia Footnote - N screened outlets: Private not for profit=16; private not for profit=17; pharmacy=52; PPMV=1323; informal=11; labs = 3; wholesalers= 29. Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 12

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KANO

	Not-for-profit facility N=10 % [95% CI]	For-profit facility N=98 % [95% CI]	Pharmacy N=130 % [95% CI]	Laboratory N=68 % [95% CI]	PPMV N=1357 % [95% CI]	Informal N=53 % [95% CI]	Retail total N=1716 % [95% CI]	Wholesale N=20 % [95% CI]
Any antimalarial	99.4 [95.2; 99.9]	89.1 [80.3; 94.3]	98.3 [92.8; 99.6]	0.4 [0; 4]	93 [86.7; 96.4]	46.2 [23.4; 70.7]	84.9 [80; 88.8]	99.2 [93.8; 99.9]
Any ACT	71.9 [23.5; 95.5]	81 [68.8; 89.1]	98.3 [92.8; 99.6]	0.4 [0; 4]	76.3 [65.5; 84.5]	41.1 [20.5; 65.4]	71 [63.4; 77.5]	99.2 [93.8; 99.9]
Artemether lumefantrine	71.9 [23.5; 95.5]	80.4 [68.1; 88.7]	98.2 [92.7; 99.6]	0.4 [0; 4]	75.1 [65.1; 83]	41.1 [20.5; 65.4]	70 [62.8; 76.3]	99.2 [93.8; 99.9]
Artesunate amodiaquine	7 [1.1; 33.4]	8.8 [4.2; 17.5]	62.9 [34.7; 84.4]	0 -	2.5 [1.3; 4.7]	2.7 [0.5; 14.1]	5.5 [3.5; 8.6]	2.1 [0.3; 14.5]
Artemisinin piperaquine	5.9 [0.7; 34.6]	0.3 [0; 2.2]	20.4 [12.4; 31.8]	0 -	2.9 [0.8; 9.3]	2.4 [0.3; 15]	3.5 [1.3; 9.2]	0 -
Dihydroartemisinin piperaquine	7 [1.1; 33.4]	11.9 [5.7; 23.2]	73.1 [65.7; 79.3]	0 -	15.2 [10.9; 20.7]	10.9 [4.1; 25.6]	16.7 [12.4; 22.2]	43.7 [15.3; 77]
Arterolane piperaquine	0 -	0 -	3.1 [1; 8.9]	0 -	0.1 [0; 0.4]	0 -	0.2 [0.1; 0.5]	0 -
Any other ACT	5.9 [0.7; 34.6]	0 -	0 -	0 -	0.1 [0; 0.5]	0 -	0.1 [0; 0.4]	0 -
Stocks nationally approved ACT	71.9 [23.5; 95.5]	78.9 [67.5; 87.1]	98.3 [92.8; 99.6]	0.4 [0; 4]	77.9 [65.6; 86.8]	36.7 [19.1; 58.8]	71.8 [63.2; 79.1]	99.2 [93.8; 99.9]
Stocks QA ACT	44.4 [15.1; 78.2]	17.2 [9; 30.4]	40.2 [29.5; 51.8]	0 -	20.1 [17.5; 23.1]	3.9 [1.2; 12.4]	18.9 [16.8; 21.1]	8.1 [1.8; 29.6]
ACT that is both WHO PQ and nationally approved	12.2 [2.1; 47.1]	4.5 [1.7; 11.3]	6.2 [1.5; 22.3]	0 -	7.6 [5.5; 10.4]	3.5 [0.9; 12.4]	6.8 [5.1; 8.8]	7.3 [1.5; 29.6]
ACT that is WHO PQ but not nationally approved	32.2 [6.8; 75.6]	12.7 [6.3; 24]	35.5 [26.3; 46]	0 -	14.2 [11.4; 17.5]	0.8 [0.2; 2.9]	13.5 [11.1; 16.3]	0.8 [0.1; 5.9]
ACT that is nationally approved but not WHO PQ	47.5 [13.7; 83.8]	69 [56.1; 79.5]	98.3 [92.8; 99.6]	0.4 [0; 4]	59.6 [47.6; 70.5]	23.7 [12.1; 41.3]	55.9 [46.3; 65.1]	99.2 [93.8; 99.9]
Stocks ACT not QA or nationally approved	28.6 [9.8; 59.6]	38 [22; 57.1]	95.4 [87.9; 98.3]	0 -	47 [38.5; 55.7]	27.2 [12.1; 50.4]	45.1 [37.6; 52.8]	62.1 [28.1; 87.4]
Two or more ACTs	7 [1.1; 33.4]	16.8 [8.9; 29.3]	90.1 [78.3; 95.8]	0 -	15.9 [11.5; 21.5]	10.9 [4.1; 25.6]	18.2 [13.3; 24.4]	43.7 [15.3; 77]
Non-artemisinins	25.7 [8.4; 56.4]	44.2 [26.5; 63.5]	65.1 [58.1; 71.5]	0.4 [0; 4]	57.7 [53.1; 62.2]	29.6 [14.3; 51.4]	52.5 [48.6; 56.3]	83.9 [59.5; 94.9]
Oral quinine	24.5 [7.8; 55.5]	3.2 [0.9; 11]	24.2 [16; 34.8]	0 -	2.5 [1.5; 4.2]	3.4 [0.5; 21]	3.6 [2.3; 5.8]	13.8 [2.9; 45.8]

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KANO

	Not-for-profit facility N=10 % [95% CI]	For-profit facility N=98 % [95% CI]	Pharmacy N=130 % [95% CI]	Laboratory N=68 % [95% CI]	PPMV N=1357 % [95% CI]	Informal N=53 % [95% CI]	Retail total N=1716 % [95% CI]	Wholesale N=20 % [95% CI]
Chloroquine	1.1 [0.1; 8.6]	2.9 [1.1; 7.5]	20.4 [8.1; 42.7]	0 -	40.4 [34.8; 46.3]	18 [6.9; 39.4]	34.4 [29.1; 40.2]	54.8 [23; 83.1]
Sulfadoxine pyrimethamine	19.2 [5.4; 49.9]	37.9 [20.9; 58.5]	38.9 [30.7; 47.9]	0.4 [0; 4]	28.6 [24.8; 32.7]	8.4 [3.2; 20.5]	26.3 [22.7; 30.2]	46 [23; 70.8]
Sulfadoxine pyrimethamine amodiaquine	0 -	1 [0.2; 6.2]	1.8 [0.4; 8.2]	0 -	0.6 [0.2; 1.3]	0 -	0.6 [0.3; 1.2]	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	97.6 [87.4; 99.6]	76.2 [63.8; 85.4]	85.3 [68.1; 94.1]	0 -	72.6 [63.3; 80.4]	25.6 [12.1; 46.2]	66.2 [59.7; 72.1]	93.3 [71; 98.7]
Treatment for severe malaria	97.6 [87.4; 99.6]	76.2 [63.8; 85.4]	85.3 [68.1; 94.1]	0 -	72.7 [63.3; 80.4]	25.6 [12.1; 46.2]	66.2 [59.8; 72.1]	93.3 [71; 98.7]
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	59.6 [24.2; 87.2]	41.9 [24; 62.2]	46.5 [30.9; 62.7]	0 -	13.5 [10.9; 16.5]	4.7 [1.3; 15.5]	14.8 [12.2; 17.7]	48.3 [16.4; 81.6]
Injectable artemether	97.6 [87.4; 99.6]	65.3 [49.7; 78.1]	35.7 [15.1; 63.5]	0 -	65 [57.9; 71.5]	22.8 [10.9; 41.7]	57.2 [51.1; 63.1]	75.6 [38.3; 93.9]
Injectable arteether	45.7 [12.9; 82.7]	50.4 [33.7; 67]	66.9 [59.1; 73.8]	0 -	25.3 [20; 31.5]	6.7 [2.4; 17.6]	25.4 [21.2; 30.1]	47 [24.4; 70.9]
Injectable quinine	59.6 [24.2; 87.2]	41.9 [24; 62.2]	46.5 [30.9; 62.7]	0 -	13.8 [11.2; 16.9]	4.7 [1.3; 15.5]	15 [12.4; 17.9]	48.3 [16.4; 81.6]

Kano Footnote - N screened outlets: Private not for profit=10; private not for profit=98; pharmacy=130; PPMV=1357; informal=53; labs = 68; wholesalers= 20. Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 23

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LAGOS

Proportion of all outlets enumerated that had any antimalarial in stock at the time of the survey visit	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=80 % [95% CI]	Pharmacy N=337 % [95% CI]	Laboratory N=69 % [95% CI]	PPMV N=500 % [95% CI]	Informal N=59 % [95% CI]	Retail total N=1048 % [95% CI]	Wholesale N=3 % [95% CI]
Any antimalarial	100 [100; 100]	86.1 [77.3; 91.8]	92 [85.8; 95.6]	0 -	96.4 [91; 98.6]	85.3 [76; 91.4]	88.2 [85.2; 90.7]	100 [100; 100]
Any ACT	85.7 [36.8; 98.4]	61.7 [44.4; 76.5]	92 [85.8; 95.6]	0 -	95.5 [90.4; 98]	78.2 [65.1; 87.4]	85.5 [82.2; 88.3]	100 [100; 100]
Artemether lumefantrine	85.7 [36.8; 98.4]	61.7 [44.4; 76.5]	91.5 [85; 95.3]	0 -	95.5 [90.4; 98]	78.2 [65.1; 87.4]	85.3 [81.9; 88.2]	100 [100; 100]
Artesunate amodiaquine	71.4 [13.2; 97.6]	11.4 [5; 23.9]	49.7 [42.2; 57.3]	0 -	8 [5.1; 12.3]	0.8 [0.1; 5.7]	21 [14.5; 29.4]	0 -
Artemisinin piperaquine	0 -	1.9 [0.3; 12.4]	22 [17; 28.1]	0 -	1.2 [0.5; 3.3]	0 -	7.9 [5.1; 12.2]	0 -
Dihydroartemisinin piperaquine	0 -	9.7 [3.8; 22.6]	59.5 [48.3; 69.8]	0 -	18.7 [16.4; 21.4]	1.2 [0.2; 7.3]	28.8 [22.5; 36.1]	38.1 [4.7; 88.5]
Arterolane piperaquine	0 -	0 -	7.5 [4.8; 11.6]	0 -	0 -	0 -	2.5 [1.5; 4.2]	0 -
Any other ACT	0 -	0 -	0.4 [0.1; 1.6]	0 -	0 -	0 -	0.1 [0; 0.5]	0 -
Stocks nationally approved ACT	85.7 [36.8; 98.4]	59.9 [38.6; 78]	90.5 [84.4; 94.4]	0 -	91.5 [84.6; 95.4]	72.3 [65.9; 78]	82.5 [79.2; 85.3]	84.7 [32.8; 98.4]
Stocks QA ACT	0 -	6.3 [1.6; 21.3]	28.2 [17.4; 42.2]	0 -	5.4 [3.2; 8.9]	9.6 [6.5; 14.1]	13.1 [8.6; 19.4]	84.7 [32.8; 98.4]
ACT that is both WHO PQ and nationally approved	0 -	0 -	3.6 [1.3; 9.5]	0 -	0.7 [0.1; 3.6]	0.6 [0.1; 3.5]	1.6 [0.7; 3.6]	0 -
ACT that is WHO PQ but not nationally approved	0 -	6.3 [1.6; 21.3]	27.3 [16.5; 41.7]	0 -	4.7 [2.5; 8.7]	9.1 [5.9; 13.8]	12.4 [7.8; 19.1]	84.7 [32.8; 98.4]
ACT that is nationally approved but not WHO PQ	85.7 [36.8; 98.4]	50.5 [31; 69.8]	90.5 [84.4; 94.4]	0 -	89.1 [82; 93.6]	67.2 [60.1; 73.7]	80.3 [76.7; 83.4]	84.7 [32.8; 98.4]
Stocks ACT not QA or nationally approved	85.7 [36.8; 98.4]	36.4 [26.3; 47.8]	86.4 [78.2; 91.8]	0 -	71.4 [64.6; 77.4]	52.2 [35; 68.9]	68.5 [61.5; 74.7]	100 [100; 100]
Two or more ACTs	71.4 [13.2; 97.6]	20.6 [11.5; 34]	72.3 [62.5; 80.4]	0 -	22.5 [19.7; 25.5]	2.1 [0.4; 9.6]	35.7 [27.9; 44.4]	38.1 [4.7; 88.5]
Non-artemisinins	0 -	44.7 [33.8; 56.2]	33.3 [27.5; 39.6]	0 -	44 [38.2; 49.9]	32.9 [25.6; 41.2]	37.1 [32.9; 41.5]	0 -
Oral quinine	0 -	2.6 [0.8; 7.7]	2.3 [1; 5.6]	0 -	0.2 [0; 1.3]	0 -	1 [0.4; 2.4]	0 -

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LAGOS

Proportion of all outlets enumerated that had any antimalarial in stock at the time of the survey visit	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=80 % [95% CI]	Pharmacy N=337 % [95% CI]	Laboratory N=69 % [95% CI]	PPMV N=500 % [95% CI]	Informal N=59 % [95% CI]	Retail total N=1048 % [95% CI]	Wholesale N=3 % [95% CI]
Chloroquine	0 -	13.9 [5.6; 30.5]	18.4 [14.2; 23.6]	0 -	22.3 [17.5; 28.1]	6.8 [1.3; 29.8]	17.8 [13.4; 23.2]	0 -
Sulfadoxine pyrimethamine	0 -	29.2 [18.5; 42.8]	29.4 [24; 35.3]	0 -	31.8 [25.5; 38.8]	30.1 [23.7; 37.3]	28.9 [25.6; 32.5]	0 -
Sulfadoxine pyrimethamine amodiaquine	0 -	0 -	0.2 [0; 1.2]	0 -	2.7 [1.3; 5.6]	7.4 [4.4; 12.1]	2 [1.1; 3.7]	0 -
Other non-artemisinins	0 -	0 -	0.2 [0; 1.4]	0 -	0 -	0 -	0.1 [0; 0.5]	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	100 [100; 100]	71.2 [59.5; 80.7]	13.4 [9.9; 18]	0 -	0 -	0 -	9.5 [6.4; 13.7]	0 -
Treatment for severe malaria	100 [100; 100]	71.2 [59.5; 80.7]	13.7 [10.2; 18.2]	0 -	0 -	0 -	9.6 [6.5; 13.9]	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	0 -	23.1 [11.8; 40.3]	4.8 [2.4; 9.5]	0 -	0 -	0 -	3.1 [1.8; 5.4]	0 -
injectable artemether	100 [100; 100]	63.9 [49.4; 76.2]	9.3 [7.1; 12.1]	0 -	0 -	0 -	7.6 [5.1; 11.1]	0 -
Injectable arteether	71.4 [13.2; 97.6]	14.4 [8.1; 24.4]	9.1 [5.2; 15.5]	0 -	0 -	0 -	4.1 [2.6; 6.7]	0 -
Injectable quinine	0 -	21.5 [12.1; 35.1]	6.8 [3.4; 13.1]	0 -	0 -	0 -	3.7 [2.2; 6.2]	0 -

Lagos Footnote - N screened outlets: Private not for profit=3; private not for profit=80; pharmacy=337; PPMV=500; informal=59; labs = 69; wholesalers= 3. Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 61

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Table 12. Proportion of all outlets enumerated that had any antimalarial in stock at the time of the survey visit, disaggregated by urban and rural areas

ABIA

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=2	N=3	N=6	N=1	N=335	N=5	N=352	N=5	N=14	N=14	N=46	N=2	N=988	N=6	N=1070	N=24
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Any antimalarial	100 [100; 100]	83 [33.3; 97.9]	100 [100; 100]	0 -	99.1 [96.1; 99.8]	100 [100; 100]	98.6 [96.1; 99.5]	100 [100; 100]	95.7 [76.4; 99.4]	100 [100; 100]	100 [100; 100]	100 [100; 100]	99.1 [97.5; 99.7]	100 [100; 100]	99.1 [97.7; 99.7]	100 [100; 100]
Any ACT	100 [100; 100]	83 [33.3; 97.9]	100 [100; 100]	0 -	98.4 [95.8; 99.4]	100 [100; 100]	98 [95.5; 99.1]	100 [100; 100]	90.6 [68; 97.8]	64.7 [33.3; 87.1]	100 [100; 100]	100 [100; 100]	97.7 [96.2; 98.7]	100 [100; 100]	97.3 [95.6; 98.4]	100 [100; 100]
Artemether lumefantrine	100 [100; 100]	83 [33.3; 97.9]	100 [100; 100]	0 -	98 [95.6; 99.1]	100 [100; 100]	97.6 [94.7; 98.9]	100 [100; 100]	90.6 [68; 97.8]	64.7 [33.3; 87.1]	100 [100; 100]	100 [100; 100]	97.3 [95.5; 98.4]	100 [100; 100]	97 [95; 98.2]	100 [100; 100]
Artesunate amodiaquine	0 -	0 -	44.5 [12; 82.5]	0 -	8.7 [5.8; 12.8]	10.7 [1.6; 46.8]	9 [6; 13.2]	0 -	17.8 [4.4; 50.1]	3 [0.5; 16.7]	53.9 [46.6; 61.1]	0 -	11 [7.8; 15.2]	0 -	12.8 [8.9; 18]	9.8 [2.6; 30.9]
Artemisinin piperaquine	0 -	0 -	0 -	0 -	1 [0.3; 2.7]	10.7 [1.6; 46.8]	1 [0.4; 2.6]	0 -	0 -	0 -	28.5 [18.2; 41.7]	0 -	2 [0.6; 6]	0 -	3.1 [1.2; 7.6]	0 -
Dihydroartemisinin piperaquine	0 -	0 -	80.6 [50.3; 94.4]	0 -	21.4 [15.9; 28.3]	21.3 [2.7; 72.4]	21.7 [16.2; 28.3]	20 [20; 20]	0 -	10.8 [2.5; 36.5]	70.7 [53.1; 83.7]	0 -	22.6 [17.2; 29.2]	16.7 [16.7; 16.7]	24.2 [17.4; 32.5]	45.9 [37.6; 54.4]
Arterolane piperaquine	0 -	0 -	33.7 [5.6; 81.2]	0 -	0 -	0 -	0.4 [0.1; 2.2]	0 -	0 -	0 -	19.3 [12.4; 28.9]	0 -	1.1 [0.3; 3.7]	0 -	1.8 [0.7; 4.6]	0 -
Any other ACT	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	2.3 [0.9; 5.5]	0 -	0.1 [0; 0.6]	0 -	0.2 [0; 1.1]	0 -
Stocks nationally approved ACT	100 [100; 100]	83 [33.3; 97.9]	89.3 [55.7; 98.2]	0 -	94 [91.8; 95.6]	100 [100; 100]	93.6 [91.1; 95.4]	80 [80; 80]	95.7 [76.4; 99.4]	72.9 [35.7; 92.8]	100 [100; 100]	100 [100; 100]	91.9 [87.6; 94.8]	100 [100; 100]	92.1 [88.2; 94.8]	100 [100; 100]
Stocks QA ACT	0 -	0 -	33.7 [5.6; 81.2]	0 -	12.5 [8.1; 18.7]	0 -	12.3 [8.2; 18.1]	0 -	0 -	0 -	19.3 [12.4; 28.9]	0 -	3.7 [2.3; 6]	0 -	4.3 [2.8; 6.5]	0 -
ACT that is both WHO PQ and nationally approved	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 [0; 0.3]	0 -	0 [0; 0.3]	0 -
ACT that is WHO PQ but not nationally approved	0 -	0 -	33.7 [5.6; 81.2]	0 -	12.5 [8.1; 18.7]	0 -	12.3 [8.2; 18.1]	0 -	0 -	0 -	19.3 [12.4; 28.9]	0 -	3.7 [2.3; 5.9]	0 -	4.2 [2.7; 6.4]	0 -
ACT that is nationally approved but not WHO PQ	48 [6.3; 92.6]	83 [33.3; 97.9]	89.3 [55.7; 98.2]	0 -	93.2 [90.9; 95]	100 [100; 100]	92.4 [89.8; 94.4]	80 [80; 80]	90.6 [68; 97.8]	64.7 [33.3; 87.1]	100 [100; 100]	100 [100; 100]	91.6 [87.3; 94.5]	100 [100; 100]	91.6 [87.7; 94.4]	100 [100; 100]
Stocks ACT not QA or nationally approved	100 [100; 100]	0 -	91.3 [60.2; 98.6]	0 -	73.1 [64.2; 80.5]	21.3 [2.7; 72.4]	72.2 [63.6; 79.3]	100 [100; 100]	77.8 [48.7; 92.9]	38.9 [18.8; 63.6]	85.1 [72.8; 92.4]	0 -	79.6 [76.1; 82.7]	100 [100; 100]	79.3 [75.7; 82.4]	85.4 [70.8; 93.4]
Two or more ACTs	0 -	0 -	80.6 [50.3; 94.4]	0 -	24.2 [18.2; 31.5]	21.3 [2.7; 72.4]	24.3 [18.4; 31.4]	20 [20; 20]	17.8 [4.4; 50.1]	10.8 [2.5; 36.5]	82.2 [71.2; 89.6]	0 -	28.3 [21.5; 36.3]	16.7 [16.7; 16.7]	30.1 [22.1; 39.6]	45.9 [37.6; 54.4]
Non-artemisinins	52 [7.4; 93.7]	50.3 [9.2; 91]	80.6 [50.3; 94.4]	0 -	34.3 [29.2; 39.9]	38.3 [10; 77.5]	35.1 [29.6; 40.9]	20 [20; 20]	25.4 [7.8; 57.7]	69.5 [42.4; 87.6]	67.4 [56.5; 76.7]	0 -	47.2 [40.8; 53.8]	16.7 [16.7; 16.7]	47.9 [42.1; 53.7]	45.9 [37.6; 54.4]
Oral quinine	0 -	0 -	10.7 [1.8; 44.3]	0 -	0.8 [0.1; 4.7]	0 -	0.9 [0.2; 4.2]	0 -	0 -	3 [0.5; 16.7]	9.9 [5.8; 16.4]	0 -	2.2 [1.3; 3.9]	16.7 [16.7; 16.7]	2.6 [1.7; 3.9]	0 -
Chloroquine	0 -	0 -	61.1 [19.7; 91]	0 -	24 [18.9; 29.9]	17 [3.1; 56.2]	23.8 [19.1; 29.3]	20 [20; 20]	17.2 [4.3; 49]	27.4 [9.5; 57.8]	28.5 [18.2; 41.7]	0 -	28.7 [23.1; 35]	0 -	28.3 [22.9; 34.5]	31.9 [26.6; 37.7]
Sulfadoxine pyrimethamine	0 -	50.3 [9.2; 91]	8.7 [1.4; 39.8]	0 -	13.7 [10.3; 17.9]	21.3 [2.7; 72.4]	13.9 [10.6; 17.9]	0 -	7.4 [1.6; 28.3]	22 [6.8; 52.4]	44 [31.3; 57.7]	0 -	20 [15.8; 25.1]	0 -	20.8 [16.5; 25.9]	20.7 [10.1; 37.8]
Sulfadoxine pyrimethamine amodiaquine	0 -	0 -	0 -	0 -	1.2 [0.5; 3.4]	0 -	1.2 [0.4; 3.2]	0 -	3.4 [0.5; 18.9]	8.8 [2.7; 25.6]	0 -	0 -	2.1 [1.2; 3.7]	0 -	2.1 [1.2; 3.8]	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0.5 [0.1; 2.2]	0 -	0.5 [0.1; 2.1]	0 -	2.5 [0.3; 16.2]	19.4 [5.5; 49.7]	10.7 [2.5; 36]	0 -	4 [2.4; 6.6]	0 -	4.4 [2.7; 7.1]	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	100 [100; 100]	50.3 [9.2; 91]	44.8 [10.9; 84.3]	0 -	5.1 [2.8; 9.3]	0 -	6.7 [4.5; 9.8]	20 [20; 20]	33.4 [11.6; 65.7]	46.4 [18.8; 76.4]	29.8 [23.1; 37.6]	0 -	2.5 [1.5; 4.4]	16.7 [16.7; 16.7]	4.8 [3.4; 6.9]	12.6 [9.7; 16.2]
Treatment for severe malaria	100 [100; 100]	50.3 [9.2; 91]	44.8 [10.9; 84.3]	0 -	5.1 [2.8; 9.3]	0 -	6.7 [4.5; 9.8]	20 [20; 20]	33.4 [11.6; 65.7]	46.4 [18.8; 76.4]	29.8 [23.1; 37.6]	0 -	2.5 [1.5; 4.4]	16.7 [16.7; 16.7]	4.8 [3.4; 6.9]	12.6 [9.7; 16.2]
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -

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ABIA

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=2	N=3	N=6	N=1	N=335	N=5	N=352	N=5	N=14	N=14	N=46	N=2	N=988	N=6	N=1070	N=24
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Injectable artesunate	0 -	0 -	0 -	0 -	0.8 [0.2; 3.6]	0 -	0.8 [0.2; 3.4]	0 -	8.5 [2; 29.6]	7.8 [1.2; 37.9]	13 [6.3; 24.8]	0 -	0.2 [0.1; 0.6]	16.7 [16.7; 16.7]	1 [0.3; 3.1]	4.2 [3.2; 5.4]
Injectable artemether	100 [100; 100]	50.3 [9.2; 91]	44.8 [10.9; 84.3]	0 -	3.7 [1.7; 7.5]	0 -	5.3 [3.3; 8.3]	20 [20; 20]	24.8 [7.1; 58.7]	35.6 [11.5; 70.2]	27.5 [20.2; 36.3]	0 -	1.3 [0.7; 2.4]	0 -	3.2 [2.1; 4.8]	8.4 [6.5; 10.8]
Injectable arteether	100 [100; 100]	50.3 [9.2; 91]	0 -	0 -	2.2 [1.1; 4.4]	0 -	3.3 [1.9; 5.7]	20 [20; 20]	11.2 [1.6; 49.1]	22 [6.6; 53]	25.4 [17.7; 35.1]	0 -	1.4 [0.6; 3.2]	0 -	2.8 [1.5; 5.2]	8.4 [6.5; 10.8]
Injectable quinine	52 [7.4; 93.7]	0 -	36.1 [8.3; 77.8]	0 -	0.7 [0.2; 2.2]	0 -	1.5 [0.8; 3]	0 -	12.8 [3.9; 34.7]	29.1 [7.5; 67.5]	19.3 [12.4; 28.9]	0 -	0.3 [0.1; 1]	16.7 [16.7; 16.7]	1.8 [0.9; 3.3]	4.2 [3.2; 5.4]

Abia Footnote - . Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 12

KANO

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=2	N=8	N=12	N=12	N=327	N=27	N=388	N=6	N=8	N=90	N=118	N=56	N=1030	N=26	N=1328	N=14
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Any antimalarial	100 [100; 100]	100 [100; 100]	100 [100; 100]	0 -	91.7 [83.5; 96.1]	44.4 [20.8; 70.7]	83 [76.9; 87.8]	100 [100; 100]	98.7 [89.5; 99.9]	83.1 [72.2; 90.3]	96.3 [87.9; 98.9]	2 [0.3; 12.4]	97.1 [95.2; 98.2]	65.6 [33.3; 87.9]	90.8 [88.9; 92.3]	96.4 [79.3; 99.5]
Any ACT	47.2 [5.6; 93.1]	87.6 [63.1; 96.7]	100 [100; 100]	0 -	72.3 [58.5; 82.8]	39.6 [18.2; 66]	66.6 [57.2; 74.9]	100 [100; 100]	98.7 [89.5; 99.9]	77.3 [62.5; 87.4]	96.3 [87.9; 98.9]	2 [0.3; 12.4]	89.4 [86.1; 92]	56.4 [27.6; 81.5]	84.3 [81.2; 86.9]	96.4 [79.3; 99.5]
Artemether lumefantrine	47.2 [5.6; 93.1]	87.6 [63.1; 96.7]	100 [100; 100]	0 -	70.7 [58.2; 80.7]	39.6 [18.2; 66]	65.4 [56.6; 73.2]	100 [100; 100]	98.7 [89.5; 99.9]	76.4 [61.5; 86.8]	95.9 [87.9; 98.7]	2 [0.3; 12.4]	89.3 [86; 92]	56.4 [27.6; 81.5]	84.1 [81; 86.8]	96.4 [79.3; 99.5]
Artesunate amodiaquine	0 -	0 -	77.1 [34.9; 95.5]	0 -	1.2 [0.4; 3.7]	2.6 [0.4; 16.5]	3.9 [1.7; 8.7]	0 -	14.7 [2.2; 57.5]	13.6 [7.7; 22.9]	45.3 [37.5; 53.3]	0 -	6.7 [4.6; 9.7]	4.3 [0.8; 19.4]	10.3 [7.3; 14.4]	8.9 [1.2; 44.1]
Artemisinin piperaquine	0 -	0 -	24.6 [14.6; 38.5]	0 -	3.1 [0.7; 12.3]	2.6 [0.4; 16.5]	3.6 [1; 12.1]	0 -	12.3 [1.4; 57.7]	0.5 [0.1; 3.3]	15.2 [10.2; 22]	0 -	2.1 [1.3; 3.5]	0 -	3.1 [2.2; 4.4]	0 -
Dihydroartemisinin piperaquine	0 -	0 -	73.6 [61.8; 82.9]	0 -	12.9 [7.9; 20.4]	9.9 [3.2; 26.4]	13.9 [8.7; 21.4]	43.4 [10.5; 83.4]	14.7 [2.2; 57.5]	18.4 [10.2; 30.9]	72.3 [63; 80.1]	0 -	22.7 [17.5; 29.1]	21.2 [9.6; 40.7]	25.6 [20.4; 31.4]	44.7 [21.3; 70.7]
Arterolane piperaquine	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	6.9 [3.3; 13.9]	0 -	0.4 [0.1; 1.4]	0 -	0.9 [0.5; 1.8]	0 -
Any other ACT	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	12.3 [1.4; 57.7]	0 -	0 -	0 -	0.4 [0.1; 2.1]	0 -	0.4 [0.1; 1.5]	0 -
Stocks nationally approved ACT	47.2 [5.6; 93.1]	87.6 [63.1; 96.7]	100 [100; 100]	0 -	73.5 [58.2; 84.7]	34.8 [16.8; 58.5]	67.2 [56.6; 76.2]	100 [100; 100]	98.7 [89.5; 99.9]	74.1 [61.1; 83.9]	96.2 [87.9; 98.8]	2 [0.3; 12.4]	92.4 [89.4; 94.6]	57 [29.9; 80.5]	86.3 [83.8; 88.4]	96.4 [79.3; 99.5]
Stocks QA ACT	47.2 [5.6; 93.1]	15.5 [3.9; 44.9]	34.9 [21.6; 50.9]	0 -	19.4 [16.1; 23.3]	2.5 [0.4; 14.7]	17.4 [14.8; 20.4]	0 -	41.3 [20.2; 66.2]	18.1 [8.9; 33.3]	46.8 [35.7; 58.2]	0 -	22.4 [19.2; 26.1]	19.2 [8.1; 39.2]	23.3 [20.6; 26.2]	34.5 [11.6; 67.8]
ACT that is both WHO PQ and nationally approved	0 -	0 -	7 [0.7; 44.6]	0 -	6.4 [3.9; 10.1]	2.5 [0.4; 14.7]	5.6 [3.7; 8.3]	0 -	25.5 [7.7; 58.4]	7 [2.9; 15.8]	5.3 [2.2; 12.2]	0 -	11.6 [9.8; 13.6]	14.9 [4.5; 39.2]	10.4 [9; 12]	31.1 [9.1; 67.1]
ACT that is WHO PQ but not nationally approved	47.2 [5.6; 93.1]	15.5 [3.9; 44.9]	27.8 [16.3; 43.3]	0 -	14.4 [11; 18.7]	0 -	12.9 [9.9; 16.8]	0 -	15.8 [1.9; 64.9]	11.1 [5.1; 22.4]	45.1 [33.9; 56.9]	0 -	13.4 [10.5; 16.8]	9.6 [4; 21.4]	15.3 [12.6; 18.4]	3.4 [0.5; 20.7]
ACT that is nationally approved but not WHO PQ	47.2 [5.6; 93.1]	87.6 [63.1; 96.7]	100 [100; 100]	0 -	53.2 [38.5; 67.3]	21.6 [10; 40.7]	49.6 [37.6; 61.6]	100 [100; 100]	47.8 [9.9; 88.4]	58.7 [47.3; 69.2]	96.2 [87.9; 98.8]	2 [0.3; 12.4]	80.4 [75.8; 84.4]	46 [23.5; 70.3]	75.3 [71.6; 78.7]	96.4 [79.3; 99.5]
Stocks ACT not QA or nationally approved	0 -	34.5 [6.5; 80]	100 [100; 100]	0 -	43.5 [33; 54.7]	25.5 [10.2; 50.9]	41.3 [32; 51.4]	63.9 [21.6; 91.9]	59.8 [35.2; 80.3]	39.9 [28; 53.2]	89.6 [82.2; 94.1]	0 -	58.2 [51.7; 64.5]	45 [20.7; 72]	56.5 [50.8; 62.2]	56.5 [26.8; 82.2]
Two or more ACTs	0 -	0 -	98.3 [84.8; 99.8]	0 -	12.8 [7.8; 20.3]	9.9 [3.2; 26.4]	14.7 [8.8; 23.4]	43.4 [10.5; 83.4]	14.7 [2.2; 57.5]	26.1 [17; 37.8]	79.9 [73; 85.4]	0 -	25.9 [19.8; 33]	21.2 [9.6; 40.7]	29.2 [23.1; 36.1]	44.7 [21.3; 70.7]
Non-artemisinins	0 -	67.7 [30.5; 90.9]	75.4 [61.5; 85.4]	0 -	58.5 [52.5; 64.2]	29.8 [13.4; 53.8]	53.3 [48.3; 58.3]	100 [100; 100]	53.6 [30.8; 75.1]	31.3 [18.2; 48.3]	52.3 [42.6; 61.8]	2 [0.3; 12.4]	55.2 [51; 59.3]	27 [14.2; 45.2]	49.9 [45.4; 54.4]	31.4 [15; 54.3]
Oral quinine	0	0	30.9	0	2.5	3.8	3.4	16.9	51.3	5	15.9	0	2.7	0	4.3	3.6

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	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=2	N=8	N=12	N=12	N=327	N=27	N=388	N=6	N=8	N=90	N=118	N=56	N=1030	N=26	N=1328	N=14
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]
	-	-	[21.4; 42.2]	-	[1.2; 4.8]	[0.5; 22.9]	[1.7; 6.5]	[3.3; 54.5]	[29; 73.1]	[1.5; 15.6]	[9; 26.4]	-	[1.8; 4.1]	-	[3.2; 5.8]	[0.5; 20.7]
Chloroquine	0	0	20	0	43	18.8	37	63.9	2.4	4.5	20.8	0	32	9.6	26.6	25.3
	-	-	[3.8; 61]	-	[35.7; 50.6]	[6.8; 42.3]	[29.7; 44.9]	[21.6; 91.9]	[0.3; 18.2]	[1.8; 10.7]	[11.4; 35.1]	-	[28.7; 35.5]	[3.2; 25.6]	[23.2; 30.3]	[11.9; 45.9]
Sulfadoxine pyrimethamine	0	67.7	37.5	0	27.2	7.2	24.8	53	40.2	21.4	40.8	2	32.9	21.5	31.1	22.9
	-	[30.5; 90.9]	[26.7; 49.6]	-	[22.4; 32.7]	[2.2; 21.1]	[20.3; 29.9]	[24; 80.2]	[19.9; 64.4]	[13.6; 32.2]	[29.9; 52.6]	[0.3; 12.4]	[29; 37]	[9.9; 40.6]	[27; 35.5]	[10.7; 42.4]
Sulfadoxine pyrimethamine amodiaquine	0	0	0	0	0.3	0	0.2	0	0	1.6	4.1	0	1.5	0	1.6	0
	-	-	-	-	[0.1; 1.4]	-	[0.1; 1.1]	-	-	[0.3; 8.9]	[1; 14.5]	-	[0.7; 3]	-	[0.9; 2.7]	-
Other non-artemisinins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oral artemisinin monotherapy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-oral artemisinin monotherapy	100	87.6	97	0	73.7	25.1	66.5	100	95	69.9	70.9	0	69.1	30.7	65.4	71.4
	[100; 100]	[63.1; 96.7]	[78.4; 99.6]	-	[61.7; 83]	[10.9; 47.7]	[58.4; 73.6]	[100; 100]	[73.9; 99.2]	[56.7; 80.5]	[57.9; 81.2]	-	[57.3; 78.8]	[11.7; 59.7]	[55.9; 73.7]	[30.4; 93.5]
Treatment for severe malaria	100	87.6	97	0	73.8	25.1	66.5	100	95	69.9	70.9	0	69.1	30.7	65.4	71.4
	[100; 100]	[63.1; 96.7]	[78.4; 99.6]	-	[61.8; 83.1]	[10.9; 47.7]	[58.5; 73.7]	[100; 100]	[73.9; 99.2]	[56.7; 80.5]	[57.9; 81.2]	-	[57.3; 78.8]	[11.7; 59.7]	[55.9; 73.7]	[30.4; 93.5]
Rectal artesunate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Injectable artesunate	52.8	75.2	60.1	0	13.9	4.5	14.9	54.3	67.1	23.5	29.5	0	12.1	7.3	14.3	28.7
	[6.9; 94.4]	[36.8; 94.1]	[44; 74.3]	-	[10.7; 17.9]	[1; 17.1]	[11.7; 18.8]	[14.3; 89.4]	[41.4; 85.5]	[14; 36.9]	[22.1; 38.1]	-	[9.8; 14.8]	[2.1; 22.9]	[12.4; 16.4]	[8.9; 62.5]
Injectable artemether	100	87.6	22.1	0	66	22.5	57.4	79.5	95	52.9	52.7	0	61.9	26.3	56.9	63
	[100; 100]	[63.1; 96.7]	[4.4; 63.6]	-	[57.3; 73.7]	[10; 43.2]	[49.8; 64.5]	[29.4; 97.3]	[73.9; 99.2]	[38.9; 66.5]	[40.9; 64.2]	-	[49.7; 72.7]	[9; 56.4]	[47.4; 65.9]	[26.3; 89]
Injectable arteether	47.2	79.7	72.3	0	24.1	5.5	23.7	47	44	34.2	60.1	0	29.2	19.7	30.8	47
	[5.6; 93.1]	[41.9; 95.5]	[60.6; 81.6]	-	[17.5; 32.3]	[1.5; 18]	[18.3; 30]	[19.8; 76]	[9.2; 85.9]	[23.4; 46.9]	[47.4; 71.6]	-	[24; 35]	[7.7; 41.9]	[26.4; 35.6]	[22.5; 73]
Injectable quinine	52.8	75.2	60.1	0	14.1	4.5	15	54.3	67.1	23.5	29.5	0	12.8	7.3	14.8	28.7
	[6.9; 94.4]	[36.8; 94.1]	[44; 74.3]	-	[10.8; 18.1]	[1; 17.1]	[11.8; 18.9]	[14.3; 89.4]	[41.4; 85.5]	[14; 36.9]	[22.1; 38.1]	-	[10.3; 15.7]	[2.1; 22.9]	[12.8; 17.2]	[8.9; 62.5]

Kano Footnote - N screened outlets: Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 23

LAGOS

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=0	N=12	N=61	N=15	N=83	N=4	N=175	N=0	N=3	N=68	N=276	N=54	N=417	N=55	N=873	N=3
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]
Any antimalarial	0	82.9	82	0	97.2	100	89.9	0	100	86.7	93.3	0	96.2	84.4	87.9	100
	-	[66.8; 92.1]	[51; 95.2]	-	[89.6; 99.3]	[100; 100]	[76.4; 96.1]	-	[100; 100]	[76.4; 93]	[87.3; 96.6]	-	[89.1; 98.7]	[76.1; 90.3]	[85; 90.4]	[100; 100]
Any ACT	0	42.7	82	0	97.2	100	86.7	0	85.7	65.8	93.3	0	95.1	77	85.2	100
	-	[18.9; 70.5]	[51; 95.2]	-	[89.6; 99.3]	[100; 100]	[71.6; 94.5]	-	[36.8; 98.4]	[47.4; 80.4]	[87.3; 96.6]	-	[88.5; 98]	[65.2; 85.6]	[82.1; 87.9]	[100; 100]
Artemether lumefantrine	0	42.7	81.6	0	97.2	100	86.6	0	85.7	65.8	92.8	0	95.1	77	85.1	100
	-	[18.9; 70.5]	[50.9; 95]	-	[89.6; 99.3]	[100; 100]	[71.4; 94.4]	-	[36.8; 98.4]	[47.4; 80.4]	[86.5; 96.3]	-	[88.5; 98]	[65.2; 85.6]	[81.8; 87.8]	[100; 100]
Artesunate amodiaquine	0	1.2	32.9	0	9.4	0	14	0	71.4	13.6	51.9	0	7.7	0.9	22.3	0
	-	[0.1; 12.2]	[18.8; 51]	-	[4; 20.5]	-	[8.7; 21.8]	-	[13.2; 97.6]	[6.2; 27.3]	[44.2; 59.4]	-	[4.5; 12.7]	[0.1; 6.2]	[14.9; 32]	-
Artemisinin piperaquine	0	0	15.5	0	0	0	3.8	0	0	2.3	22.9	0	1.6	0	8.7	0
	-	-	[9.3; 24.6]	-	-	-	[1.6; 8.7]	-	-	[0.3; 14.8]	[17.3; 29.6]	-	[0.6; 4]	-	[5.4; 13.6]	-
Dihydroartemisinin piperaquine	0	4.7	46	0	22	0	25.2	0	0	10.8	61.3	0	17.9	1.3	29.5	38.1
	-	[0.5; 32.9]	[25.4; 68.1]	-	[17.4; 27.5]	-	[18.6; 33.2]	-	-	[4.1; 25.7]	[49; 72.3]	-	[15; 21.2]	[0.2; 8]	[22.2; 38]	[4.7; 88.5]
Arterolane piperaquine	0	0	6.3	0	0	0	1.5	0	0	0	7.7	0	0	0	2.6	0
	-	-	[1.7; 20.9]	-	-	-	[0.3; 7.2]	-	-	-	[4.8; 12.2]	-	-	-	[1.5; 4.6]	-
Any other ACT	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0	0.1	0
	-	-	-	-	-	-	-	-	-	-	[0.1; 1.9]	-	-	-	[0; 0.6]	-
Stocks nationally approved ACT	0	30.3	82	0	93.5	97.1	83.4	0	85.7	66.3	91.6	0	90.9	70.9	82.3	84.7
	-	[4.2; 81.2]	[51; 95.2]	-	[92.5; 94.4]	[76; 99.7]	[71.5; 90.9]	-	[36.8; 98.4]	[47.4; 81.1]	[85.8; 95.2]	-	[81.9; 95.7]	[65.3; 76]	[79; 85.1]	[32.8; 98.4]
Stocks QA ACT	0	0	13.1	0	4.2	0	5.8	0	0	7.6	30.1	0	5.7	10.2	14.4	84.7
	-	-	[7; 23.4]	-	[1.8; 9.6]	-	[4; 8.5]	-	-	[2; 24.7]	[18.2; 45.6]	-	[3.2; 10]	[6.9; 14.8]	[9.3; 21.6]	[32.8; 98.4]

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LAGOS	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=0	N=12	N=61	N=15	N=83	N=4	N=175	N=0	N=3	N=68	N=276	N=54	N=417	N=55	N=873	N=3
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
ACT that is both WHO PQ and nationally approved	0 -	0 -	0 -	0 -	3 [0.9; 9.9]	0 -	1.9 [0.4; 7.8]	0 -	0 -	0 -	4.1 [1.5; 10.6]	0 -	0.1 [0; 0.5]	0.6 [0.1; 3.9]	1.5 [0.6; 3.9]	0 -
ACT that is WHO PQ but not nationally approved	0 -	0 -	13.1 [7; 23.4]	0 -	1.2 [0.2; 5.8]	0 -	4 [1.6; 9.4]	0 -	0 -	7.6 [2; 24.7]	29.1 [17.1; 45]	0 -	5.6 [3.1; 9.9]	9.6 [6.3; 14.3]	13.9 [8.8; 21.4]	84.7 [32.8; 98.4]
ACT that is nationally approved but not WHO PQ	0 -	25.6 [3.9; 74.6]	82 [51; 95.2]	0 -	88.3 [86.6; 89.8]	97.1 [76; 99.7]	79.8 [69.9; 87.1]	0 -	85.7 [36.8; 98.4]	55.9 [36.2; 73.8]	91.6 [85.8; 95.2]	0 -	89.3 [79.9; 94.6]	65.5 [57; 73.1]	80.3 [76.4; 83.7]	84.7 [32.8; 98.4]
Stocks ACT not QA or nationally approved	0 -	21.4 [12.9; 33.3]	72.7 [44.4; 89.8]	0 -	70.6 [61.4; 78.3]	57.6 [8.9; 95]	64.9 [59.9; 69.6]	0 -	85.7 [36.8; 98.4]	39.6 [28; 52.6]	88.2 [80; 93.3]	0 -	71.6 [63.3; 78.7]	51.9 [34.5; 68.8]	69.1 [60.9; 76.3]	100 [100; 100]
Two or more ACTs	0 -	5.9 [0.8; 32.6]	56.7 [37.5; 74.1]	0 -	25.5 [20.6; 31.2]	0 -	30.1 [23.5; 37.7]	0 -	71.4 [13.2; 97.6]	23.7 [13.9; 37.5]	74.4 [63.8; 82.7]	0 -	21.7 [18.4; 25.3]	2.2 [0.4; 10.6]	36.7 [27.7; 46.9]	38.1 [4.7; 88.5]
Non-artemisinins	0 -	30.8 [18; 47.4]	33 [17.1; 54]	0 -	49.7 [44.6; 54.9]	57.6 [8.9; 95]	43.1 [36.9; 49.6]	0 -	0 -	47.7 [35.9; 59.9]	33.3 [27.3; 40]	0 -	42.5 [35.9; 49.4]	31.5 [25.6; 38.2]	36 [31.6; 40.7]	0 -
Oral quinine	0 -	4.7 [0.5; 32.9]	0 -	0 -	0 -	0 -	0.4 [0; 2.8]	0 -	0 -	2.1 [0.5; 8]	2.6 [1.1; 6.2]	0 -	0.2 [0; 1.6]	0 -	1.1 [0.5; 2.7]	0 -
Chloroquine	0 -	23.6 [17.1; 31.6]	18.5 [8; 37.3]	0 -	29.8 [21.7; 39.3]	54.7 [7.9; 94.4]	26.6 [19.6; 35]	0 -	0 -	11.8 [3.4; 33.7]	18.4 [13.9; 23.9]	0 -	20.4 [15.3; 26.7]	4.1 [0.7; 21.7]	16.2 [11.8; 21.8]	0 -
Sulfadoxine pyrimethamine	0 -	3 [0.4; 18.8]	27.5 [16.6; 42]	0 -	38.9 [32.4; 45.8]	57.6 [8.9; 95]	32.9 [28.4; 37.7]	0 -	0 -	34.9 [24.4; 47]	29.6 [23.8; 36.1]	0 -	29.9 [22.8; 38.2]	28.5 [22.9; 34.9]	28.2 [24.5; 32.2]	0 -
Sulfadoxine pyrimethamine amodiaquine	0 -	0 -	0 -	0 -	5.1 [1.8; 13.7]	0 -	3.1 [1; 9.7]	0 -	0 -	0 -	0.2 [0; 1.4]	0 -	2.1 [0.8; 5.1]	7.8 [4.9; 12]	1.8 [0.8; 3.7]	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0.2 [0; 1.5]	0 -	0 -	0 -	0.1 [0; 0.5]	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	0 -	64 [39.2; 83.1]	7.8 [2.6; 21.5]	0 -	0 -	0 -	7 [2.8; 16.4]	0 -	100 [100; 100]	72.8 [60.5; 82.4]	14.2 [10.4; 19]	0 -	0 -	0 -	9.9 [6.6; 14.7]	0 -
Treatment for severe malaria	0 -	64 [39.2; 83.1]	7.8 [2.6; 21.5]	0 -	0 -	0 -	7 [2.8; 16.4]	0 -	100 [100; 100]	72.8 [60.5; 82.4]	14.5 [10.7; 19.3]	0 -	0 -	0 -	10 [6.6; 14.9]	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	0 -	7.2 [1.1; 35.4]	3.8 [0.5; 22.8]	0 -	0 -	0 -	1.5 [0.3; 6.8]	0 -	0 -	26.6 [13.8; 45.1]	4.9 [2.4; 10.1]	0 -	0 -	0 -	3.4 [1.9; 6]	0 -
Injectable artemether	0 -	59.3 [42.5; 74.2]	7.8 [2.6; 21.5]	0 -	0 -	0 -	6.6 [2.6; 15.5]	0 -	100 [100; 100]	64.9 [47.8; 78.8]	9.4 [7.2; 12.4]	0 -	0 -	0 -	7.8 [5.1; 11.7]	0 -
Injectable arteether	0 -	18.4 [9.6; 32.4]	4.2 [0.7; 21.4]	0 -	0 -	0 -	2.5 [0.8; 7.1]	0 -	71.4 [13.2; 97.6]	13.6 [6.7; 25.6]	9.7 [5.4; 16.8]	0 -	0 -	0 -	4.4 [2.6; 7.4]	0 -
Injectable quinine	0 -	11.9 [1.5; 54.2]	3.8 [0.5; 22.8]	0 -	0 -	0 -	1.9 [0.4; 7.7]	0 -	0 -	23.5 [13.5; 37.8]	7.2 [3.5; 14.2]	0 -	0 -	0 -	4 [2.3; 6.9]	0 -

Lagos Footnote - Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 61

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2.2 Availability of antimalarials among antimalarial-stocking outlets

Table 13. Proportion of antimalarial-stocking outlets with antimalarial medicine in stock on the day of the visit, among all outlets surveyed with one or more antimalarials in stock

ABIA

	Not-for-profit facility N=15 % [95% CI]	For-profit facility N=16 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=2 % [95% CI]	PPMV N=1312 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1408 % [95% CI]	Wholesale N=29 % [95% CI]
Any antimalarial	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]
Any ACT	95.8 [75.8; 99.4]	72.2 [41.7; 90.4]	100 [100; 100]	100 [100; 100]	98.9 [97.6; 99.5]	100 [100; 100]	98.6 [97.1; 99.3]	100 [100; 100]
Artemether lumefantrine	95.8 [75.8; 99.4]	72.2 [41.7; 90.4]	100 [100; 100]	100 [100; 100]	98.5 [97; 99.2]	100 [100; 100]	98.2 [96.5; 99.1]	100 [100; 100]
Artesunate amodiaquine	14.6 [3.3; 46.2]	2.4 [0.4; 13.6]	52.8 [44.1; 61.3]	0 -	10.3 [7.9; 13.4]	5.4 [0.7; 31.2]	11.7 [8.6; 15.5]	8.6 [2.5; 25.6]
Artemisinin piperaquine	0 -	0 -	25.2 [14.3; 40.5]	0 -	1.7 [0.6; 4.3]	5.4 [0.7; 31.2]	2.4 [1; 5.7]	0 -
Dihydroartemisinin piperaquine	0 -	8.5 [2; 30]	71.9 [56.7; 83.3]	0 -	22.4 [18.2; 27.3]	19 [6.3; 45.1]	23.6 [18.5; 29.7]	42.7 [34.9; 51]
Arterolane piperaquine	0 -	0 -	21 [13.2; 31.7]	0 -	0.7 [0.2; 2.7]	0 -	1.4 [0.5; 3.4]	0 -
Any other ACT	0 -	0 -	2 [0.7; 5.4]	0 -	0.1 [0; 0.4]	0 -	0.1 [0; 0.8]	0 -
Stocks nationally approved ACT	100 [100; 100]	78.6 [43.3; 94.6]	98.8 [91; 99.8]	100 [100; 100]	93.5 [90.5; 95.5]	100 [100; 100]	93.6 [90.8; 95.6]	97.5 [81.2; 99.7]
Stocks QA ACT	0 -	0 -	21 [13.2; 31.7]	0 -	6.7 [4.5; 10]	0 -	7 [4.9; 9.9]	0 -
ACT that is both WHO PQ and nationally approved	0 -	0 -	0 -	0 -	0 [0; 0.2]	0 -	0 [0; 0.2]	0 -
ACT that is WHO PQ but not nationally approved	0 -	0 -	21 [13.2; 31.7]	0 -	6.7 [4.4; 9.9]	0 -	6.9 [4.9; 9.8]	0 -
ACT that is nationally approved but not WHO PQ	84.7 [52; 96.6]	72.2 [41.7; 90.4]	98.8 [91; 99.8]	100 [100; 100]	93 [90; 95.1]	100 [100; 100]	92.9 [90.1; 94.9]	97.5 [81.2; 99.7]
Stocks ACT not QA or nationally approved	85.3 [59.8; 95.8]	30.7 [14.6; 53.4]	85.8 [74.8; 92.5]	0 -	78.1 [74.5; 81.3]	59.8 [16.3; 91.9]	77.8 [74.2; 81]	87.2 [76.2; 93.6]
Two or more ACTs	14.6 [3.3; 46.2]	8.5 [2; 30]	82 [71.8; 89.1]	0 -	27.2 [22; 33.1]	19 [6.3; 45.1]	28.6 [22.4; 35.6]	42.7 [34.9; 51]

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ABIA

	Not-for-profit facility N=15 % [95% CI]	For-profit facility N=16 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=2 % [95% CI]	PPMV N=1312 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1408 % [95% CI]	Wholesale N=29 % [95% CI]
Non-artemisinins	32 [11.6; 62.8]	67.6 [42.2; 85.7]	68.9 [58.6; 77.7]	0 -	43.3 [38.4; 48.3]	27.7 [11.2; 53.9]	44.2 [39.6; 48.8]	42.7 [34.9; 51]
Oral quinine	0 -	2.4 [0.4; 13.6]	10 [6; 16.3]	0 -	1.8 [1; 3.1]	8.2 [2.6; 22.7]	2.1 [1.4; 3.2]	0 -
Chloroquine	14.1 [3.6; 41.7]	21.6 [7.6; 48.3]	32.3 [19.8; 48]	0 -	27.4 [23.2; 32]	8.7 [1.3; 41.4]	27.2 [23.2; 31.6]	30.4 [24.4; 37.2]
Sulfadoxine pyrimethamine	6 [1.3; 23.3]	30.2 [11; 60.1]	39.9 [25.9; 55.8]	0 -	18.1 [14.8; 21.8]	10.9 [1.4; 52.2]	18.7 [15.4; 22.6]	18.2 [9.7; 31.4]
Sulfadoxine pyrimethamine amodiaquine	2.8 [0.4; 15.8]	7 [2; 21.4]	0 -	0 -	1.9 [1.1; 3]	0 -	1.8 [1.1; 3]	0 -
Other non-artemisinins	2.1 [0.3; 13.3]	15.3 [4.3; 42.2]	9.5 [2.4; 31.1]	0 -	2.9 [1.7; 4.9]	0 -	3.2 [1.9; 5.3]	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	48.8 [20; 78.4]	49.4 [23.1; 76]	31.6 [23.7; 40.6]	0 -	3.4 [2.2; 5.3]	8.2 [2.6; 22.7]	5.5 [4.2; 7.2]	13.5 [11.3; 16.1]
Treatment for severe malaria	48.8 [20; 78.4]	49.4 [23.1; 76]	31.6 [23.7; 40.6]	0 -	3.4 [2.2; 5.3]	8.2 [2.6; 22.7]	5.5 [4.2; 7.2]	13.5 [11.3; 16.1]
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	7 [1.7; 24.5]	6.1 [0.9; 31.5]	11.5 [5; 24.1]	0 -	0.4 [0.1; 1.2]	8.2 [2.6; 22.7]	1 [0.4; 2.4]	3.7 [2.2; 6]
injectable artemether	41.8 [15.9; 73.1]	40.9 [16.7; 70.5]	29.5 [21; 39.7]	0 -	2.1 [1.2; 3.6]	0 -	3.9 [2.9; 5.3]	9.8 [7.5; 12.8]
Injectable arteether	30.6 [10; 63.7]	30.2 [11; 60.1]	22.5 [14.2; 33.6]	0 -	1.7 [0.9; 3]	0 -	3 [1.9; 4.7]	9.8 [7.5; 12.8]
Injectable quinine	21.6 [6.8; 51.2]	23 [5.8; 59.1]	21.3 [13.9; 31.2]	0 -	0.5 [0.2; 1.1]	8.2 [2.6; 22.7]	1.7 [1; 2.8]	3.7 [2.2; 6]

Abia Footnote - N AM-stocking outlets: Private not for profit=15; private not for profit=16; pharmacy=52; PPMV=1312; informal=11; labs= 2; wholesalers= 29. Outlets that had at least 1 antimalarial in stock but did not complete the interview (were not interviewed or completed a partial interview) = 6

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KANO

	Not-for-profit facility N=9 % [95% CI]	For-profit facility N=79 % [95% CI]	Pharmacy N=125 % [95% CI]	Laboratory N=1 % [95% CI]	PPMV N=1293 % [95% CI]	Informal N=35 % [95% CI]	Retail total N=1542 % [95% CI]	Wholesale N=19 % [95% CI]
Any antimalarial	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]
Any ACT	72.3 [23.2; 95.8]	90.8 [78.9; 96.3]	100 [100; 100]	100 [100; 100]	82.1 [74.2; 87.9]	88.9 [57.1; 98]	83.6 [76.3; 88.9]	100 [100; 100]
Artemether lumefantrine	72.3 [23.2; 95.8]	90.2 [78.4; 95.9]	99.8 [98.6; 100]	100 [100; 100]	80.8 [73.6; 86.3]	88.9 [57.1; 98]	82.4 [75.7; 87.6]	100 [100; 100]
Artesunate amodiaquine	7.1 [1.1; 33.6]	9.8 [4.6; 19.9]	64 [35.6; 85.1]	0 -	2.7 [1.4; 5]	5.9 [1.1; 25.7]	6.5 [4.1; 10]	2.1 [0.3; 14.7]
Artemisinin piperaquine	5.9 [0.7; 34.8]	0.3 [0; 2.5]	20.8 [12.7; 32]	0 -	3.1 [0.9; 9.7]	5.1 [0.8; 27.2]	4.1 [1.5; 10.8]	0 -
Dihydroartemisinin piperaquine	7.1 [1.1; 33.6]	13.3 [6.3; 26]	74.3 [66; 81.1]	0 -	16.3 [12.2; 21.5]	23.5 [10; 45.9]	19.7 [14.9; 25.6]	44.1 [15.4; 77.4]
Arterolane piperaquine	0 -	0 -	3.1 [1; 9.1]	0 -	0.1 [0; 0.4]	0 -	0.3 [0.1; 0.6]	0 -
Any other ACT	5.9 [0.7; 34.8]	0 -	0 -	0 -	0.1 [0; 0.6]	0 -	0.1 [0; 0.5]	0 -
Stocks nationally approved ACT	72.3 [23.2; 95.8]	88.5 [78; 94.4]	99.9 [99.5; 100]	100 [100; 100]	83.8 [74.6; 90.1]	79.4 [51.4; 93.3]	84.6 [76.3; 90.4]	100 [100; 100]
Stocks QA ACT	44.7 [15.2; 78.5]	19.3 [10; 33.8]	40.9 [29.8; 52.9]	0 -	21.6 [18.7; 24.9]	8.5 [2.8; 23.2]	22.2 [19.6; 25.1]	8.2 [1.8; 29.8]
ACT that is both WHO PQ and nationally approved	12.3 [2.1; 47.3]	5 [1.9; 12.7]	6.4 [1.5; 22.7]	0 -	8.1 [6.1; 10.9]	7.7 [2.3; 23]	8 [6.1; 10.4]	7.4 [1.5; 29.8]
ACT that is WHO PQ but not nationally approved	32.4 [6.8; 75.9]	14.2 [7; 26.7]	36.1 [26.6; 46.9]	0 -	15.3 [12.1; 19.1]	1.8 [0.5; 6]	15.9 [13; 19.3]	0.8 [0.1; 5.9]
ACT that is nationally approved but not WHO PQ	47.8 [13.7; 84.1]	77.4 [65; 86.3]	99.9 [99.5; 100]	100 [100; 100]	64 [53.9; 73.1]	51.4 [29.1; 73.1]	65.8 [56.1; 74.4]	100 [100; 100]
Stocks ACT not QA or nationally approved	28.8 [9.9; 59.9]	42.7 [24.6; 62.9]	97 [90.6; 99.1]	0 -	50.5 [43.2; 57.8]	58.9 [35.5; 78.8]	53.1 [45.4; 60.6]	62.7 [28.1; 87.8]
Two or more ACTs	7.1 [1.1; 33.6]	18.8 [9.8; 33.3]	91.6 [81.1; 96.5]	0 -	17.1 [12.9; 22.3]	23.5 [10; 45.9]	21.5 [15.9; 28.3]	44.1 [15.4; 77.4]
Non-artemisinins	25.8 [8.5; 56.7]	49.6 [30.8; 68.6]	66.2 [59.4; 72.3]	100 [100; 100]	62.1 [56.8; 67.1]	64 [35.4; 85.2]	61.8 [56.8; 66.6]	84.6 [59.9; 95.3]
Oral quinine	24.7 [7.8; 55.8]	3.6 [1; 12.2]	24.6 [16.3; 35.3]	0 -	2.7 [1.7; 4.4]	7.5 [1; 38.4]	4.3 [2.7; 6.8]	13.9 [3; 46.1]

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KANO

	Not-for-profit facility N=9 % [95% CI]	For-profit facility N=79 % [95% CI]	Pharmacy N=125 % [95% CI]	Laboratory N=1 % [95% CI]	PPMV N=1293 % [95% CI]	Informal N=35 % [95% CI]	Retail total N=1542 % [95% CI]	Wholesale N=19 % [95% CI]
Chloroquine	1.1 [0.1; 8.7]	3.3 [1.2; 8.5]	20.7 [8.1; 43.7]	0 -	43.5 [36.2; 51.1]	39 [15.4; 69.3]	40.5 [33.6; 47.9]	55.3 [23.2; 83.5]
Sulfadoxine pyrimethamine	19.3 [5.4; 50.2]	42.5 [24.2; 63.2]	39.6 [31; 48.9]	100 [100; 100]	30.7 [27; 34.7]	18.3 [8.5; 34.9]	31 [27.2; 35]	46.4 [23.2; 71.2]
Sulfadoxine pyrimethamine amodiaquine	0 -	1.1 [0.2; 7]	1.8 [0.4; 8.4]	0 -	0.6 [0.3; 1.4]	0 -	0.7 [0.3; 1.4]	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	98.2 [86.6; 99.8]	85.5 [73.9; 92.5]	86.8 [70.7; 94.7]	0 -	78.1 [71.1; 83.8]	55.3 [29; 79]	77.9 [71.2; 83.5]	94.1 [70; 99.1]
Treatment for severe malaria	98.2 [86.6; 99.8]	85.5 [73.9; 92.5]	86.8 [70.7; 94.7]	0 -	78.2 [71.2; 83.9]	55.3 [29; 79]	78 [71.2; 83.5]	94.1 [70; 99.1]
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	60 [24.2; 87.6]	47 [27.3; 67.7]	47.3 [31.9; 63.2]	0 -	14.5 [12; 17.5]	10.2 [3.1; 28.7]	17.4 [14.5; 20.6]	48.7 [16.5; 82]
injectable artemether	98.2 [86.6; 99.8]	73.2 [57.6; 84.6]	36.3 [15.1; 64.7]	0 -	69.9 [63.9; 75.3]	49.4 [26.2; 72.9]	67.4 [61.1; 73.1]	76.3 [38.3; 94.3]
Injectable arteether	46 [12.9; 83]	56.5 [39.1; 72.5]	68 [60.6; 74.6]	0 -	27.2 [22.3; 32.8]	14.6 [5.6; 32.9]	29.9 [25.1; 35.3]	47.4 [24.5; 71.4]
Injectable quinine	60 [24.2; 87.6]	47 [27.3; 67.7]	47.3 [31.9; 63.2]	0 -	14.8 [12.2; 17.8]	10.2 [3.1; 28.7]	17.6 [14.8; 20.9]	48.7 [16.5; 82]

Kano Footnote - N AM-stocking outlets: Private not for profit=9; private not for profit=79; pharmacy=125; PPMV=1293; informal=35; labs= 1; wholesalers= 19. Outlets that had at least 1 antimalarial in stock but did not complete the interview (were not interviewed or completed a partial interview) = 6

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LAGOS

	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=3	N=68	N=309	N=69	N=482	N=54	N=916	N=3
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Any antimalarial	100 [100; 100]	100 [100; 100]	100 [100; 100]	0 -	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]
Any ACT	85.7 [36.8; 98.4]	71.7 [52.1; 85.5]	100 [100; 100]	0 -	99.1 [97.1; 99.7]	91.7 [84.8; 95.7]	96.9 [95.2; 98]	100 [100; 100]
Artemether lumefantrine	85.7 [36.8; 98.4]	71.7 [52.1; 85.5]	99.4 [98.1; 99.8]	0 -	99.1 [97.1; 99.7]	91.7 [84.8; 95.7]	96.7 [95.2; 97.7]	100 [100; 100]
Artesunate amodiaquine	71.4 [13.2; 97.6]	13.2 [5.5; 28.5]	54 [47; 60.8]	0 -	8.3 [5.4; 12.7]	1 [0.1; 6.3]	23.8 [16.2; 33.5]	0 -
Artemisinin piperaquine	0 -	2.2 [0.3; 14.1]	24 [18.4; 30.7]	0 -	1.3 [0.5; 3.4]	0 -	9 [5.7; 14]	0 -
Dihydroartemisinin piperaquine	0 -	11.3 [4.5; 25.4]	64.7 [53.5; 74.5]	0 -	19.4 [17.1; 22.1]	1.5 [0.3; 8]	32.7 [25.2; 41.2]	38.1 [4.7; 88.5]
Arterolane piperaquine	0 -	0 -	8.2 [5.1; 12.8]	0 -	0 -	0 -	2.8 [1.6; 4.9]	0 -
Any other ACT	0 -	0 -	0.4 [0.1; 1.8]	0 -	0 -	0 -	0.1 [0; 0.6]	0 -
Stocks nationally approved ACT	85.7 [36.8; 98.4]	69.6 [45.9; 86]	98.4 [94.9; 99.5]	0 -	94.9 [91.2; 97.1]	84.8 [76.8; 90.4]	93.5 [91.4; 95]	84.7 [32.8; 98.4]
Stocks QA ACT	0 -	7.3 [1.9; 23.8]	30.7 [19.4; 45.1]	0 -	5.6 [3.4; 9.1]	11.3 [7.4; 16.8]	14.9 [9.7; 22.1]	84.7 [32.8; 98.4]
ACT that is both WHO PQ and nationally approved	0 -	0 -	4 [1.5; 10.1]	0 -	0.7 [0.1; 3.7]	0.7 [0.1; 4]	1.8 [0.8; 4.1]	0 -
ACT that is WHO PQ but not nationally approved	0 -	7.3 [1.9; 23.8]	29.7 [18.3; 44.5]	0 -	4.9 [2.6; 9]	10.7 [6.7; 16.6]	14.1 [8.8; 21.8]	84.7 [32.8; 98.4]
ACT that is nationally approved but not WHO PQ	85.7 [36.8; 98.4]	58.6 [35.7; 78.4]	98.4 [94.9; 99.5]	0 -	92.4 [87.8; 95.4]	78.9 [63.1; 89]	91 [88.6; 92.9]	84.7 [32.8; 98.4]
Stocks ACT not QA or nationally approved	85.7 [36.8; 98.4]	42.3 [29.6; 56.1]	93.9 [86.7; 97.3]	0 -	74.1 [67; 80.1]	61.2 [44.8; 75.4]	77.6 [68.9; 84.4]	100 [100; 100]
Two or more ACTs	71.4 [13.2; 97.6]	23.9 [13.1; 39.7]	78.6 [69.3; 85.7]	0 -	23.3 [20.6; 26.3]	2.4 [0.5; 10.4]	40.5 [31.2; 50.6]	38.1 [4.7; 88.5]
Non-artemisinins	0 -	52 [40.9; 62.9]	36.3 [29.7; 43.4]	0 -	45.6 [39.4; 52]	38.6 [31.1; 46.7]	42.1 [37.5; 46.8]	0 -
Oral quinine	0 -	3 [1; 8.8]	2.5 [1.1; 6]	0 -	0.2 [0; 1.3]	0 -	1.2 [0.5; 2.7]	0 -

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LAGOS

	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=3	N=68	N=309	N=69	N=482	N=54	N=916	N=3
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Chloroquine	0 -	16.2 [6.6; 34.4]	20.1 [15.5; 25.6]	0 -	23.2 [17.9; 29.5]	8 [1.6; 32.4]	20.2 [15.3; 26.1]	0 -
Sulfadoxine pyrimethamine	0 -	33.9 [21.8; 48.7]	32 [26.1; 38.5]	0 -	33 [26.7; 39.9]	35.3 [27.6; 43.7]	32.8 [29.1; 36.7]	0 -
Sulfadoxine pyrimethamine amodiaquine	0 -	0 -	0.2 [0; 1.3]	0 -	2.8 [1.4; 5.8]	8.6 [4.7; 15.3]	2.3 [1.2; 4.2]	0 -
Other non-artemisinins	0 -	0 -	0.2 [0; 1.5]	0 -	0 -	0 -	0.1 [0; 0.5]	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	100 [100; 100]	82.8 [69.2; 91.1]	14.6 [10.8; 19.4]	0 -	0 -	0 -	10.7 [7.2; 15.7]	0 -
Treatment for severe malaria	100 [100; 100]	82.8 [69.2; 91.1]	14.9 [11.1; 19.6]	0 -	0 -	0 -	10.8 [7.2; 15.9]	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	0 -	26.9 [14.1; 45.2]	5.2 [2.6; 10.3]	0 -	0 -	0 -	3.6 [2; 6.2]	0 -
injectable artemether	100 [100; 100]	74.2 [55.6; 86.9]	10.1 [7.7; 13]	0 -	0 -	0 -	8.6 [5.7; 12.7]	0 -
Injectable arteether	71.4 [13.2; 97.6]	16.7 [9.3; 28.3]	9.9 [5.6; 16.7]	0 -	0 -	0 -	4.7 [2.8; 7.7]	0 -
Injectable quinine	0 -	24.9 [14.5; 39.4]	7.4 [3.7; 14.1]	0 -	0 -	0 -	4.2 [2.4; 7.1]	0 -

Lagos Footnote - N AM-stocking outlets: Private not for profit=3; private not for profit=68; pharmacy=309; PPMV=482; informal=54; labs= 0; wholesalers= 3. Outlets that had at least 1 antimalarial in stock but did not complete the interview (were not interviewed or completed a partial interview) = 10

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Table 14. Proportion of antimalarial-stocking outlets with antimalarial medicine in stock on the day of the visit, among all outlets surveyed with one or more antimalarials in stock, disaggregated by urban and rural areas

ABIA	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=2	N=2	N=6	N=1	N=333	N=5	N=348	N=5	N=13	N=14	N=46	N=2	N=979	N=6	N=1060	N=24
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Any antimalarial	100 [100; 100]	100 [100; 100]	100 [100; 100]	0 -	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]
Any ACT	100 [100; 100]	100 [100; 100]	100 [100; 100]	0 -	99.3 [97.8; 99.8]	100 [100; 100]	99.3 [97.9; 99.8]	100 [100; 100]	94.6 [69.9; 99.3]	64.7 [33.3; 87.1]	100 [100; 100]	100 [100; 100]	98.6 [96.9; 99.4]	100 [100; 100]	98.2 [96.2; 99.2]	100 [100; 100]
Artemether lumefantrine	100 [100; 100]	100 [100; 100]	100 [100; 100]	0 -	98.9 [97.3; 99.6]	100 [100; 100]	98.9 [97.4; 99.6]	100 [100; 100]	94.6 [69.9; 99.3]	64.7 [33.3; 87.1]	100 [100; 100]	100 [100; 100]	98.2 [96; 99.2]	100 [100; 100]	97.8 [95.4; 99]	100 [100; 100]
Artesunate amodiaquine	0 -	0 -	44.5 [12; 82.5]	0 -	8.8 [5.9; 12.8]	10.7 [1.6; 46.8]	9.1 [6.1; 13.4]	0 -	18.6 [4.8; 50.9]	3 [0.5; 16.7]	53.9 [46.6; 61.1]	0 -	11.1 [7.9; 15.4]	0 -	12.9 [9; 18.2]	9.8 [2.6; 30.9]
Artemisinin piperaquine	0 -	0 -	0 -	0 -	1 [0.3; 2.7]	10.7 [1.6; 46.8]	1 [0.4; 2.7]	0 -	0 -	0 -	28.5 [18.2; 41.7]	0 -	2 [0.6; 6]	0 -	3.1 [1.2; 7.7]	0 -
Dihydroartemisinin piperaquine	0 -	0 -	80.6 [50.3; 94.4]	0 -	21.6 [16.1; 28.4]	21.3 [2.7; 72.4]	22 [16.4; 28.7]	20 [20; 20]	0 -	10.8 [2.5; 36.5]	70.7 [53.1; 83.7]	0 -	22.9 [17.3; 29.5]	16.7 [16.7; 16.7]	24.4 [17.5; 32.8]	45.9 [37.6; 54.4]
Arterolane piperaquine	0 -	0 -	33.7 [5.6; 81.2]	0 -	0 -	0 -	0.4 [0.1; 2.2]	0 -	0 -	0 -	19.3 [12.4; 28.9]	0 -	1.1 [0.3; 3.7]	0 -	1.8 [0.7; 4.6]	0 -
Any other ACT	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	2.3 [0.9; 5.5]	0 -	0.1 [0; 0.6]	0 -	0.2 [0; 1.1]	0 -
Stocks nationally approved ACT	100 [100; 100]	100 [100; 100]	89.3 [55.7; 98.2]	0 -	94.8 [92.6; 96.4]	100 [100; 100]	94.9 [92.8; 96.4]	80 [80; 80]	100 [100; 100]	72.9 [35.7; 92.8]	100 [100; 100]	100 [100; 100]	92.8 [88.2; 95.6]	100 [100; 100]	93 [88.8; 95.7]	100 [100; 100]
Stocks QA ACT	0 -	0 -	33.7 [5.6; 81.2]	0 -	12.6 [8.1; 19.1]	0 -	12.5 [8.3; 18.4]	0 -	0 -	0 -	19.3 [12.4; 28.9]	0 -	3.8 [2.3; 6.1]	0 -	4.3 [2.8; 6.6]	0 -
ACT that is both WHO PQ and nationally approved	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 [0; 0.3]	0 -	0 [0; 0.3]	0 -
ACT that is WHO PQ but not nationally approved	0 -	0 -	33.7 [5.6; 81.2]	0 -	12.6 [8.1; 19.1]	0 -	12.5 [8.3; 18.4]	0 -	0 -	0 -	19.3 [12.4; 28.9]	0 -	3.7 [2.3; 6]	0 -	4.3 [2.8; 6.5]	0 -
ACT that is nationally approved but not WHO PQ	48 [6.3; 92.6]	100 [100; 100]	89.3 [55.7; 98.2]	0 -	94 [91.6; 95.8]	100 [100; 100]	93.7 [91.3; 95.5]	80 [80; 80]	94.6 [69.9; 99.3]	64.7 [33.3; 87.1]	100 [100; 100]	100 [100; 100]	92.4 [87.9; 95.3]	100 [100; 100]	92.5 [88.4; 95.2]	100 [100; 100]
Stocks ACT not QA or nationally approved	100 [100; 100]	0 -	91.3 [60.2; 98.6]	0 -	73.8 [65.4; 80.7]	21.3 [2.7; 72.4]	73.2 [65; 80.1]	100 [100; 100]	81.3 [50.5; 94.9]	38.9 [18.8; 63.6]	85.1 [72.8; 92.4]	0 -	80.3 [76.9; 83.3]	100 [100; 100]	80 [76.5; 83.1]	85.4 [70.8; 93.4]
Two or more ACTs	0 -	0 -	80.6 [50.3; 94.4]	0 -	24.4 [18.4; 31.6]	21.3 [2.7; 72.4]	24.7 [18.7; 31.8]	20 [20; 20]	18.6 [4.8; 50.9]	10.8 [2.5; 36.5]	82.2 [71.2; 89.6]	0 -	28.5 [21.7; 36.6]	16.7 [16.7; 16.7]	30.4 [22.3; 39.9]	45.9 [37.6; 54.4]
Non-artemisinins	52 [7.4; 93.7]	60.6 [10.2; 95.4]	80.6 [50.3; 94.4]	0 -	34.6 [29.6; 40.1]	38.3 [10; 77.5]	35.5 [30.2; 41.2]	20 [20; 20]	26.5 [8.1; 59.8]	69.5 [42.4; 87.6]	67.4 [56.5; 76.7]	0 -	47.7 [41; 54.4]	16.7 [16.7; 16.7]	48.3 [42.4; 54.3]	45.9 [37.6; 54.4]
Oral quinine	0 -	0 -	10.7 [1.8; 44.3]	0 -	0.8 [0.1; 4.8]	0 -	0.9 [0.2; 4.3]	0 -	0 -	3 [0.5; 16.7]	9.9 [5.8; 16.4]	0 -	2.3 [1.3; 3.9]	16.7 [16.7; 16.7]	2.6 [1.8; 3.9]	0 -
Chloroquine	0 -	0 -	61.1 [19.7; 91]	0 -	24.2 [19.1; 30.1]	17 [3.1; 56.2]	24.2 [19.5; 29.6]	20 [20; 20]	17.9 [4.4; 50.7]	27.4 [9.5; 57.8]	28.5 [18.2; 41.7]	0 -	29 [23.3; 35.4]	0 -	28.6 [23.1; 34.8]	31.9 [26.6; 37.7]
Sulfadoxine pyrimethamine	0 -	60.6 [10.2; 95.4]	8.7 [1.4; 39.8]	0 -	13.8 [10.5; 18]	21.3 [2.7; 72.4]	14 [10.8; 18]	0 -	7.7 [1.6; 29.5]	22 [6.8; 52.4]	44 [31.3; 57.7]	0 -	20.2 [15.8; 25.4]	0 -	21 [16.5; 26.2]	20.7 [10.1; 37.8]
Sulfadoxine pyrimethamine amodiaquine	0 -	0 -	0 -	0 -	1.3 [0.5; 3.4]	0 -	1.2 [0.4; 3.3]	0 -	3.6 [0.6; 19.6]	8.8 [2.7; 25.6]	0 -	0 -	2.2 [1.2; 3.7]	0 -	2.2 [1.2; 3.8]	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0.5 [0.1; 2.2]	0 -	0.5 [0.1; 2.1]	0 -	2.6 [0.4; 17]	19.4 [5.5; 49.7]	10.7 [2.5; 36]	0 -	4 [2.4; 6.7]	0 -	4.5 [2.8; 7.2]	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	100 [100; 100]	60.6 [10.2; 95.4]	44.8 [10.9; 84.3]	0 -	5.2 [2.8; 9.3]	0 -	6.8 [4.6; 9.9]	20 [20; 20]	34.9 [11.5; 68.7]	46.4 [18.8; 76.4]	29.8 [23.1; 37.6]	0 -	2.6 [1.5; 4.4]	16.7 [16.7; 16.7]	4.9 [3.4; 6.9]	12.6 [9.7; 16.2]
Treatment for severe malaria	100 [100; 100]	60.6 [10.2; 95.4]	44.8 [10.9; 84.3]	0 -	5.2 [2.8; 9.3]	0 -	6.8 [4.6; 9.9]	20 [20; 20]	34.9 [11.5; 68.7]	46.4 [18.8; 76.4]	29.8 [23.1; 37.6]	0 -	2.6 [1.5; 4.4]	16.7 [16.7; 16.7]	4.9 [3.4; 6.9]	12.6 [9.7; 16.2]

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ABIA

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=2	N=2	N=6	N=1	N=333	N=5	N=348	N=5	N=13	N=14	N=46	N=2	N=979	N=6	N=1060	N=24
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	0 -	0 -	0 -	0 -	0.8 [0.2; 3.6]	0 -	0.8 [0.2; 3.5]	0 -	8.9 [2.1; 30.9]	7.8 [1.2; 37.9]	13 [6.3; 24.8]	0 -	0.2 [0.1; 0.6]	16.7 [16.7; 16.7]	1 [0.3; 3.1]	4.2 [3.2; 5.4]
injectable artemether	100 [100; 100]	60.6 [10.2; 95.4]	44.8 [10.9; 84.3]	0 -	3.7 [1.8; 7.6]	0 -	5.3 [3.4; 8.3]	20 [20; 20]	26 [7.1; 61.5]	35.6 [11.5; 70.2]	27.5 [20.2; 36.3]	0 -	1.3 [0.7; 2.4]	0 -	3.2 [2.1; 4.8]	8.4 [6.5; 10.8]
Injectable arteether	100 [100; 100]	60.6 [10.2; 95.4]	0 -	0 -	2.2 [1.1; 4.4]	0 -	3.4 [2; 5.7]	20 [20; 20]	11.7 [1.7; 50.6]	22 [6.6; 53]	25.4 [17.7; 35.1]	0 -	1.4 [0.6; 3.3]	0 -	2.8 [1.5; 5.2]	8.4 [6.5; 10.8]
Injectable quinine	52 [7.4; 93.7]	0 -	36.1 [8.3; 77.8]	0 -	0.7 [0.2; 2.2]	0 -	1.5 [0.8; 3]	0 -	13.4 [3.8; 37.4]	29.1 [7.5; 67.5]	19.3 [12.4; 28.9]	0 -	0.3 [0.1; 1.1]	16.7 [16.7; 16.7]	1.8 [1; 3.4]	4.2 [3.2; 5.4]

Abia Footnote - Outlets that had at least 1 antimalarial in stock but did not complete the interview (were not interviewed or completed a partial interview) = 22

KANO

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=2	N=8	N=12	N=12	N=304	N=14	N=340	N=6	N=7	N=71	N=113	N=1	N=989	N=21	N=1202	N=13
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Any antimalarial	100 [100; 100]	100 [100; 100]	100 [100; 100]	0 -	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]	100 [100; 100]
Any ACT	47.2 [5.6; 93.1]	87.6 [63.1; 96.7]	100 [100; 100]	0 -	78.8 [68.4; 86.5]	89.3 [51; 98.5]	80.3 [70.3; 87.5]	100 [100; 100]	100 [100; 100]	93 [77.3; 98.1]	100 [100; 100]	100 [100; 100]	92.1 [89.4; 94.2]	86 [49; 97.5]	92.9 [90.2; 94.9]	100 [100; 100]
Artemether lumefantrine	47.2 [5.6; 93.1]	87.6 [63.1; 96.7]	100 [100; 100]	0 -	77.1 [67.8; 84.3]	89.3 [51; 98.5]	78.7 [69.8; 85.6]	100 [100; 100]	100 [100; 100]	92 [77; 97.5]	99.6 [97.3; 99.9]	100 [100; 100]	92 [89.3; 94.1]	86 [49; 97.5]	92.7 [89.9; 94.8]	100 [100; 100]
Artesunate amodiaquine	0 -	0 -	77.1 [34.9; 95.5]	0 -	1.3 [0.4; 4.1]	5.8 [0.9; 30.4]	4.7 [2.1; 10.3]	0 -	14.9 [2.2; 58.1]	16.4 [9.2; 27.4]	47 [38; 56.2]	0 -	6.9 [4.8; 10]	6.6 [1.4; 26.3]	11.3 [8; 15.7]	9.2 [1.2; 45.3]
Artemisinin piperaquine	0 -	0 -	24.6 [14.6; 38.5]	0 -	3.4 [0.8; 12.9]	5.8 [0.9; 30.4]	4.3 [1.2; 14.4]	0 -	12.5 [1.4; 58.3]	0.6 [0.1; 4.1]	15.8 [10.5; 23]	0 -	2.2 [1.4; 3.6]	0 -	3.4 [2.4; 4.8]	0 -
Dihydroartemisinin piperaquine	0 -	0 -	73.6 [61.8; 82.9]	0 -	14.1 [9; 21.2]	22.3 [8.1; 48.1]	16.7 [10.7; 25.2]	43.4 [10.5; 83.4]	14.9 [2.2; 58.1]	22.1 [12.7; 35.7]	75.1 [64.3; 83.5]	0 -	23.4 [18.1; 29.8]	32.4 [17.5; 51.9]	28.2 [22.6; 34.5]	46.4 [21.6; 73]
Arterolane piperaquine	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	7.2 [3.6; 14.1]	0 -	0.5 [0.1; 1.5]	0 -	1 [0.5; 1.9]	0 -
Any other ACT	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	12.5 [1.4; 58.3]	0 -	0 -	0 -	0.4 [0.1; 2.2]	0 -	0.5 [0.1; 1.6]	0 -
Stocks nationally approved ACT	47.2 [5.6; 93.1]	87.6 [63.1; 96.7]	100 [100; 100]	0 -	80.1 [68.4; 88.3]	78.3 [47.1; 93.6]	80.9 [69.8; 88.6]	100 [100; 100]	100 [100; 100]	89.2 [77.8; 95.1]	99.9 [99; 100]	100 [100; 100]	95.2 [93; 96.7]	87 [72.1; 94.6]	95.1 [93.1; 96.5]	100 [100; 100]
Stocks QA ACT	47.2 [5.6; 93.1]	15.5 [3.9; 44.9]	34.9 [21.6; 50.9]	0 -	21.2 [17.5; 25.4]	5.6 [0.9; 27.1]	21 [17.5; 24.9]	0 -	41.9 [20.5; 66.7]	21.8 [11; 38.6]	48.6 [37.4; 60]	0 -	23.1 [19.8; 26.8]	29.3 [14.6; 50.3]	25.7 [22.7; 28.9]	35.8 [12.3; 68.9]
ACT that is both WHO PQ and nationally approved	0 -	0 -	7 [0.7; 44.6]	0 -	6.9 [4.4; 10.6]	5.6 [0.9; 27.1]	6.7 [4.4; 10]	0 -	25.8 [7.8; 58.7]	8.4 [3.6; 18.4]	5.5 [2.3; 12.4]	0 -	11.9 [10.1; 14]	22.8 [7.5; 51.5]	11.4 [10; 13.1]	32.3 [9.6; 68.1]
ACT that is WHO PQ but not nationally approved	47.2 [5.6; 93.1]	15.5 [3.9; 44.9]	27.8 [16.3; 43.3]	0 -	15.8 [11.8; 20.7]	0 -	15.6 [11.8; 20.3]	0 -	16 [1.9; 65.5]	13.4 [6.3; 26.1]	46.9 [35.3; 58.7]	0 -	13.8 [10.9; 17.2]	14.7 [7; 28.3]	16.8 [13.8; 20.3]	3.5 [0.5; 21.4]
ACT that is nationally approved but not WHO PQ	47.2	87.6	100	0	58	48.7	59.7	100	48.4	70.6	99.9	100	82.9	70.1	83	100

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KANO

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=2	N=8	N=12	N=12	N=304	N=14	N=340	N=6	N=7	N=71	N=113	N=1	N=989	N=21	N=1202	N=13
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
	[5.6; 93.1]	[63.1; 96.7]	[100; 100]	-	[44.9; 70]	[24.9; 73.2]	[46.6; 71.5]	[100; 100]	[9.8; 89.1]	[58.3; 80.5]	[99; 100]	[100; 100]	[78.6; 86.4]	[47; 86.1]	[79.1; 86.3]	[100; 100]
Stocks ACT not QA or nationally approved	0 -	34.5 [6.5; 80]	100 [100; 100]	0 -	47.5 [38.2; 57]	57.5 [31.9; 79.6]	49.8 [39.7; 59.9]	63.9 [21.6; 91.9]	60.6 [35.3; 81.2]	48.1 [35.1; 61.3]	93 [84.5; 97]	0 -	60 [53.7; 66]	68.7 [35.5; 89.7]	62.3 [56.1; 68.1]	58.6 [26.2; 85]
Two or more ACTs	0 -	0 -	98.3 [84.8; 99.8]	0 -	14 [9; 21.1]	22.3 [8.1; 48.1]	17.7 [10.8; 27.6]	43.4 [10.5; 83.4]	14.9 [2.2; 58.1]	31.4 [20.8; 44.3]	83 [76; 88.3]	0 -	26.6 [20.5; 33.8]	32.4 [17.5; 51.9]	32.1 [25.5; 39.6]	46.4 [21.6; 73]
Non-artemisinins	0 -	67.7 [30.5; 90.9]	75.4 [61.5; 85.4]	0 -	63.8 [56.8; 70.2]	67.2 [33.2; 89.4]	64.2 [57.5; 70.4]	100 [100; 100]	54.3 [31; 75.9]	37.7 [22.8; 55.2]	54.3 [43.9; 64.2]	100 [100; 100]	56.9 [52.6; 61]	41.1 [25.2; 59.1]	55 [50.4; 59.5]	32.6 [14.8; 57.5]
Oral quinine	0 -	0 -	30.9 [21.4; 42.2]	0 -	2.7 [1.4; 5]	8.5 [1.1; 42.6]	4.1 [2.1; 7.8]	16.9 [3.3; 54.5]	51.9 [29.3; 73.8]	6.1 [1.9; 18]	16.5 [9; 28.3]	0 -	2.8 [1.9; 4.2]	0 -	4.7 [3.5; 6.3]	3.7 [0.5; 22.6]
Chloroquine	0 -	0 -	20 [3.8; 61]	0 -	46.9 [37.1; 56.9]	42.4 [15.3; 75]	44.5 [34.9; 54.6]	63.9 [21.6; 91.9]	2.4 [0.3; 18.5]	5.4 [2.3; 12.6]	21.6 [11.4; 37.1]	0 -	33 [29.5; 36.7]	14.6 [5; 36]	29.3 [25.6; 33.2]	26.2 [12; 48]
Sulfadoxine pyrimethamine	0 -	67.7 [30.5; 90.9]	37.5 [26.7; 49.6]	0 -	29.7 [24.9; 34.9]	16.3 [6.2; 36.2]	29.8 [24.9; 35.3]	53 [24; 80.2]	40.7 [20.3; 65]	25.8 [17.1; 37]	42.3 [31.3; 54.2]	100 [100; 100]	33.9 [30.1; 37.9]	32.8 [16.9; 54]	34.2 [30; 38.7]	23.8 [10.9; 44.4]
Sulfadoxine pyrimethamine amodiaquine	0 -	0 -	0 -	0 -	0.3 [0.1; 1.5]	0 -	0.3 [0.1; 1.3]	0 -	0 -	1.9 [0.3; 10.7]	4.2 [1.1; 14.9]	0 -	1.5 [0.7; 3.1]	0 -	1.7 [1; 3]	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Non-oral artemisinin monotherapy	100 [100; 100]	87.6 [63.1; 96.7]	97 [78.4; 99.6]	0 -	80.4 [72; 86.7]	56.5 [26.9; 82.1]	80 [71.8; 86.3]	100 [100; 100]	96.2 [73; 99.6]	84.1 [70.4; 92.2]	73.6 [60.9; 83.4]	0 -	71.2 [58.6; 81.2]	46.8 [18.6; 77.3]	72 [61.5; 80.6]	74.1 [29; 95.3]
Treatment for severe malaria	100 [100; 100]	87.6 [63.1; 96.7]	97 [78.4; 99.6]	0 -	80.5 [72.1; 86.8]	56.5 [26.9; 82.1]	80.1 [71.9; 86.4]	100 [100; 100]	96.2 [73; 99.6]	84.1 [70.4; 92.2]	73.6 [60.9; 83.4]	0 -	71.2 [58.6; 81.2]	46.8 [18.6; 77.3]	72 [61.5; 80.6]	74.1 [29; 95.3]
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	52.8 [6.9; 94.4]	75.2 [36.8; 94.1]	60.1 [44; 74.3]	0 -	15.2 [11.9; 19.1]	10.1 [2.6; 32.2]	17.9 [14.3; 22.3]	54.3 [14.3; 89.4]	68 [41.3; 86.5]	28.3 [16.2; 44.6]	30.6 [22.9; 39.6]	0 -	12.5 [10.1; 15.3]	11.2 [3.3; 31.9]	15.8 [13.6; 18.2]	29.8 [9; 64.6]
injectable artemether	100 [100; 100]	87.6 [63.1; 96.7]	22.1 [4.4; 63.6]	0 -	71.9 [64.9; 78]	50.7 [24.8; 76.3]	69.1 [61.1; 76.1]	79.5 [29.4; 97.3]	96.2 [73; 99.6]	63.7 [47.3; 77.4]	54.7 [43; 65.9]	0 -	63.7 [50.9; 74.8]	40.1 [14; 73.5]	62.7 [52.2; 72.1]	65.3 [26.7; 90.7]
Injectable arteether	47.2 [5.6; 93.1]	79.7 [41.9; 95.5]	72.3 [60.6; 81.6]	0 -	26.3 [20.1; 33.7]	12.5 [3.8; 34.2]	28.5 [22.1; 35.9]	47 [19.8; 76]	44.6 [9.1; 86.6]	41.2 [29.4; 54.1]	62.4 [50; 73.4]	0 -	30.1 [24.7; 36.1]	30 [12.4; 56.5]	33.9 [29.3; 39]	48.8 [22.9; 75.3]
Injectable quinine	52.8 [6.9; 94.4]	75.2 [36.8; 94.1]	60.1 [44; 74.3]	0 -	15.3 [12; 19.3]	10.1 [2.6; 32.2]	18.1 [14.4; 22.5]	54.3 [14.3; 89.4]	68 [41.3; 86.5]	28.3 [16.2; 44.6]	30.6 [22.9; 39.6]	0 -	13.2 [10.5; 16.3]	11.2 [3.3; 31.9]	16.3 [14; 19]	29.8 [9; 64.6]

Kano Footnote - Outlets that had at least 1 antimalarial in stock but did not complete the interview (were not interviewed or completed a partial interview) = 22

LAGOS

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=0	N=11	N=54	N=15	N=81	N=4	N=150	N=0	N=3	N=57	N=255	N=54	N=401	N=50	N=766	N=3
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
Any antimalarial	0	100	100	0	100	100	100	0	100	100	100	0	100	100	100	100

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LAGOS	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=0	N=11	N=54	N=15	N=81	N=4	N=150	N=0	N=3	N=57	N=255	N=54	N=401	N=50	N=766	N=3
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]
	-	[100; 100]	[100; 100]	-	[100; 100]	[100; 100]	[100; 100]	-	[100; 100]	[100; 100]	[100; 100]	-	[100; 100]	[100; 100]	[100; 100]	[100; 100]
Any ACT	0	51.5	100	0	100	100	96.5	0	85.7	75.9	100	0	98.8	91.2	96.9	100
	-	[26.6; 75.7]	[100; 100]	-	[100; 100]	[100; 100]	[87.9; 99]	-	[36.8; 98.4]	[53.9; 89.4]	[100; 100]	-	[96.4; 99.6]	[84.9; 95]	[95.3; 98]	[100; 100]
Artemether lumefantrine	0	51.5	99.5	0	100	100	96.4	0	85.7	75.9	99.4	0	98.8	91.2	96.7	100
	-	[26.6; 75.7]	[96.6; 99.9]	-	[100; 100]	[100; 100]	[88; 99]	-	[36.8; 98.4]	[53.9; 89.4]	[97.8; 99.9]	-	[96.4; 99.6]	[84.9; 95]	[95.2; 97.8]	[100; 100]
Artesunate amodiaquine	0	1.5	40.1	0	9.7	0	15.6	0	71.4	15.6	55.5	0	8	1	25.3	0
	-	[0.1; 13.6]	[23.6; 59.3]	-	[4.3; 20.5]	-	[9; 25.5]	-	[13.2; 97.6]	[6.6; 32.8]	[48.6; 62.2]	-	[4.7; 13.1]	[0.1; 7.1]	[16.7; 36.4]	-
Artemisinin piperaquine	0	0	18.9	0	0	0	4.2	0	0	2.6	24.6	0	1.6	0	9.9	0
	-	-	[11.4; 29.6]	-	-	-	[1.7; 10.3]	-	-	[0.4; 16.6]	[18.5; 32]	-	[0.6; 4.1]	-	[6.1; 15.6]	-
Dihydroartemisinin piperaquine	0	5.7	56.1	0	22.6	0	28	0	0	12.5	65.7	0	18.6	1.6	33.6	38.1
	-	[0.7; 35.1]	[32.6; 77.1]	-	[17.6; 28.6]	-	[19.3; 38.8]	-	-	[4.8; 28.7]	[53.6; 76.1]	-	[15.8; 21.8]	[0.3; 8.9]	[25; 43.4]	[4.7; 88.5]
Arterolane piperaquine	0	0	7.7	0	0	0	1.7	0	0	0	8.3	0	0	0	3	0
	-	-	[2; 25.2]	-	-	-	[0.3; 8.5]	-	-	-	[5; 13.3]	-	-	-	[1.7; 5.3]	-
Any other ACT	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0	0.2	0
	-	-	-	-	-	-	-	-	-	-	[0.1; 2]	-	-	-	[0; 0.7]	
Stocks nationally approved ACT	0	36.6	100	0	96.2	97.1	92.7	0	85.7	76.4	98.2	0	94.5	84	93.6	84.7
	-	[5.5; 85]	[100; 100]	-	[90.6; 98.5]	[76; 99.7]	[86.7; 96.2]	-	[36.8; 98.4]	[55.7; 89.3]	[94.3; 99.4]	-	[89.8; 97.2]	[74.9; 90.2]	[91.4; 95.3]	[32.8; 98.4]
Stocks QA ACT	0	0	16	0	4.4	0	6.5	0	0	8.8	32.4	0	5.9	12.1	16.4	84.7
	-	-	[8.6; 27.8]	-	[1.9; 9.5]	-	[4.2; 9.8]	-	-	[2.4; 27.4]	[19.9; 48]	-	[3.4; 10.2]	[8.1; 17.5]	[10.5; 24.6]	[32.8; 98.4]
ACT that is both WHO PQ and nationally approved	0	0	0	0	3.1	0	2.1	0	0	0	4.4	0	0.1	0.7	1.7	0
	-	-	-	-	[0.9; 9.9]	-	[0.5; 8.2]	-	-	-	[1.7; 11.2]	-	[0; 0.6]	[0.1; 4.4]	[0.6; 4.5]	-
ACT that is WHO PQ but not nationally approved	0	0	16	0	1.3	0	4.4	0	0	8.8	31.3	0	5.8	11.4	15.9	84.7
	-	-	[8.6; 27.8]	-	[0.2; 6.1]	-	[1.7; 11.1]	-	-	[2.4; 27.4]	[18.7; 47.4]	-	[3.3; 10.2]	[7.4; 17.1]	[9.9; 24.4]	[32.8; 98.4]
ACT that is nationally approved but not WHO PQ	0	30.9	100	0	90.8	97.1	88.8	0	85.7	64.4	98.2	0	92.9	77.6	91.4	84.7
	-	[5.2; 78.3]	[100; 100]	-	[86.3; 93.9]	[76; 99.7]	[83.3; 92.6]	-	[36.8; 98.4]	[39.9; 83.1]	[94.3; 99.4]	-	[87; 96.2]	[59.6; 89.1]	[88.8; 93.4]	[32.8; 98.4]
Stocks ACT not QA or nationally approved	0	25.8	88.6	0	72.6	57.6	72.2	0	85.7	45.7	94.5	0	74.5	61.5	78.6	100
	-	[13.4; 43.8]	[59.5; 97.6]	-	[60.2; 82.3]	[8.9; 95]	[63.8; 79.3]	-	[36.8; 98.4]	[30.8; 61.4]	[86.7; 97.8]	-	[66.1; 81.4]	[44.3; 76.2]	[68.3; 86.3]	[100; 100]
Two or more ACTs	0	7.2	69.1	0	26.3	0	33.5	0	71.4	27.4	79.7	0	22.5	2.6	41.8	38.1
	-	[1.1; 34.7]	[50.8; 82.9]	-	[21.5; 31.7]	-	[24.3; 44.1]	-	[13.2; 97.6]	[15.2; 44.2]	[69.5; 87.1]	-	[19.3; 26.1]	[0.5; 11.7]	[31.1; 53.4]	[4.7; 88.5]
Non-artemisinins	0	37.1	40.3	0	51.2	57.6	47.9	0	0	55	35.8	0	44.2	37.3	41	0
	-	[23.1; 53.6]	[22.8; 60.7]	-	[45.1; 57.2]	[8.9; 95]	[43.4; 52.5]	-	-	[43.1; 66.4]	[28.9; 43.4]	-	[37; 51.7]	[30.9; 44.2]	[35.9; 46.2]	-
Oral quinine	0	5.7	0	0	0	0	0.4	0	0	2.4	2.8	0	0.2	0	1.3	0
	-	[0.7; 35.1]	-	-	-	-	[0.1; 3.2]	-	-	[0.6; 9.1]	[1.2; 6.6]	-	[0; 1.7]	-	[0.5; 3.1]	-
Chloroquine	0	28.4	22.6	0	30.6	54.7	29.6	0	0	13.6	19.8	0	21.2	4.9	18.4	0
	-	[18.8; 40.5]	[10.3; 42.4]	-	[21.5; 41.6]	[7.9; 94.4]	[22.2; 38.2]	-	-	[4; 37.1]	[15.1; 25.6]	-	[15.6; 28.1]	[0.8; 24]	[13.5; 24.8]	-
Sulfadoxine pyrimethamine	0	3.6	33.6	0	40	57.6	36.6	0	0	40.2	31.8	0	31.1	33.8	32.1	0
	-	[0.5; 20.8]	[21.4; 48.3]	-	[32.3; 48.3]	[8.9; 95]	[33.6; 39.7]	-	-	[28.1; 53.6]	[25.4; 38.9]	-	[24; 39.3]	[26.3; 42.1]	[27.9; 36.6]	-
Sulfadoxine pyrimethamine amodiaquine	0	0	0	0	5.3	0	3.5	0	0	0	0.2	0	2.2	9.2	2	0
	-	-	-	-	[1.9; 13.8]	-	[1.1; 10.4]	-	-	-	[0; 1.5]	-	[0.9; 5.3]	[5.4; 15.2]	[1; 4.3]	-
Other non-artemisinins	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0.1	0
	-	-	-	-	-	-	-	-	-	-	[0; 1.7]	-	-	-	[0; 0.6]	-
Oral artemisinin monotherapy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-oral artemisinin monotherapy	0	77.2	9.5	0	0	0	7.7	0	100	83.9	15.2	0	0	0	11.3	0
	-	[56.5; 89.8]	[2.8; 27.5]	-	-	-	[2.8; 19.4]	-	[100; 100]	[67.9; 92.8]	[11.2; 20.2]	-	-	-	[7.3; 16.9]	-
Treatment for severe malaria	0	77.2	9.5	0	0	0	7.7	0	100	83.9	15.5	0	0	0	11.4	0
	-	[56.5; 89.8]	[2.8; 27.5]	-	-	-	[2.8; 19.4]	-	[100; 100]	[67.9; 92.8]	[11.5; 20.5]	-	-	-	[7.4; 17.1]	-
Rectal artesunate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Injectable artesunate	0	8.7	4.7	0	0	0	1.7	0	0	30.6	5.3	0	0	0	3.9	0
	-	[1.5; 37.7]	[0.6; 28.8]	-	-	-	[0.3; 8]	-	-	[16.1; 50.3]	[2.5; 10.8]	-	-	-	[2.2; 6.9]	-
injectable artemether	0	71.6	9.5	0	0	0	7.3	0	100	74.8	10.1	0	0	0	8.8	0
	-	[59.5; 81.2]	[2.8; 27.5]	-	-	-	[2.7; 18.3]	-	[100; 100]	[52; 89]	[7.7; 13.1]	-	-	-	[5.7; 13.5]	-
Injectable arteether	0	22.1	5.2	0	0	0	2.8	0	71.4	15.6	10.4	0	0	0	5	0

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LAGOS	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	N=0	N=11	N=54	N=15	N=81	N=4	N=150	N=0	N=3	N=57	N=255	N=54	N=401	N=50	N=766	N=3
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]	[95% CI]
	-	[9.6; 43.1]	[0.8; 27.3]	-	-	-	[0.9; 8.3]	-	[13.2; 97.6]	[7.8; 29]	[5.8; 17.9]	-	-	-	[3; 8.5]	-
Injectable quinine	0	14.3	4.7	0	0	0	2.1	0	0	27.1	7.7	0	0	0	4.6	0
	-	[2; 57.5]	[0.6; 28.8]	-	-	-	[0.5; 9.1]	-	-	[15.9; 42.3]	[3.8; 15]	-	-	-	[2.6; 7.9]	-

Lagos Footnote - Outlets that had at least 1 antimalarial in stock but did not complete the interview (were not interviewed or completed a partial interview) = 22

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2.3 Availability of malaria blood testing in all screened outlets

Table 15. Proportion of all outlets enumerated that had any malaria blood testing available at the time of the survey visit

ABIA

	Not-for-profit facility N=16 % [95% CI]	For-profit facility N=17 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=3 % [95% CI]	PPMV N=1323 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1422 % [95% CI]	Wholesale N=29 % [95% CI]
Any malaria blood testing	81.2 [55.1; 93.8]	56.3 [29.3; 80]	16.5 [9.4; 27.3]	85.9 [37; 98.4]	0.1 [0; 0.3]	0 -	2.5 [1.6; 3.9]	7.4 [4.5; 11.9]
Microscopy	68.9 [40.6; 87.7]	40.2 [18; 67.4]	2.3 [0.5; 10.5]	85.9 [37; 98.4]	0 -	0 -	1.6 [1; 2.6]	0 -
RDT	15.7 [4.7; 41.4]	44.3 [19.8; 71.8]	14.2 [7.6; 24.9]	0 -	0.1 [0; 0.3]	0 -	1.3 [0.8; 2.1]	7.4 [4.5; 11.9]
WHO pre-qualified RDT	15.7 [4.7; 41.4]	25.9 [8.6; 56.4]	14.2 [7.6; 24.9]	0 -	0.1 [0; 0.3]	0 -	1.1 [0.7; 1.7]	0 -

Abia Footnote - N screened outlets: Private not for profit=16; private not for profit=17; pharmacy=52; PPMV=1323; informal=11; labs = 3; wholesalers= 29. Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 12

KANO

	Not-for-profit facility N=10 % [95% CI]	For-profit facility N=98 % [95% CI]	Pharmacy N=130 % [95% CI]	Laboratory N=68 % [95% CI]	PPMV N=1357 % [95% CI]	Informal N=53 % [95% CI]	Retail total N=1716 % [95% CI]	Wholesale N=20 % [95% CI]
Any malaria blood testing	100 [100; 100]	70.8 [49.9; 85.5]	27.6 [11.6; 52.8]	99.6 [98; 99.9]	31.2 [27.3; 35.4]	13.6 [4.5; 34.5]	34.5 [30.2; 39]	23.5 [9.3; 48.1]
Microscopy	73.6 [26.2; 95.6]	40.8 [25.9; 57.5]	3.4 [0.9; 12]	87.2 [57.9; 97.1]	0 -	0 -	6 [3; 11.6]	0
RDT	54.4 [20.8; 84.4]	52.3 [33.4; 70.5]	27.6 [11.5; 52.7]	22.1 [5.5; 57.9]	31.2 [27.3; 35.4]	13.6 [4.5; 34.5]	29.9 [24.8; 35.6]	23.5 [9.3; 48.1]
WHO pre-qualified RDT	47.9 [17.2; 80.3]	51.5 [32.9; 69.7]	26.3 [11; 50.8]	21.5 [5.4; 56.9]	28.2 [24.4; 32.3]	13.6 [4.5; 34.5]	27.4 [23; 32.2]	23.5 [9.3; 48.1]

Kano Footnote - N screened outlets: Private not for profit=10; private not for profit=98; pharmacy=130; PPMV=1357; informal=53; labs = 68; wholesalers= 20. Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 23

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LAGOS

	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=80 % [95% CI]	Pharmacy N=337 % [95% CI]	Laboratory N=69 % [95% CI]	PPMV N=500 % [95% CI]	Informal N=59 % [95% CI]	Retail total N=1048 % [95% CI]	Wholesale N=3 % [95% CI]
Any malaria blood testing	85.7 [36.8; 98.4]	45.1 [35.9; 54.6]	6.7 [4; 11.1]	97.1 [88.3; 99.3]	0.4 [0.2; 1.3]	0 -	10.7 [7.3; 15.3]	0 -
Microscopy	85.7 [36.8; 98.4]	35.2 [24.2; 48]	0 -	97.1 [88.3; 99.3]	0 -	0 -	7.6 [5.2; 10.9]	0 -
RDT	14.3 [1.6; 63.2]	17.7 [9.9; 29.6]	6.7 [4; 11.1]	11.2 [4.9; 23.4]	0.4 [0.2; 1.3]	0 -	4.2 [2.5; 7]	0 -
WHO pre-qualified RDT	14.3 [1.6; 63.2]	11.6 [5.9; 21.3]	3.6 [1.9; 6.6]	8.4 [3.4; 19.4]	0.4 [0.2; 1.3]	0 -	2.6 [1.7; 4.2]	0 -

Lagos Footnote - N screened outlets: Private not for profit=3; private not for profit=80; pharmacy=337; PPMV=500; informal=59; labs = 69; wholesalers= 3. Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 61

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Table 16. Proportion of all outlets enumerated that had any malaria blood testing available at the time of the survey visit, disaggregated by urban and rural areas

ABIA	Rural								Urban							
	Not-for-profit facility N=2 % [95% CI]	For-profit facility N=3 % [95% CI]	Pharmacy N=6 % [95% CI]	Laboratory N=1 % [95% CI]	PPMV N=335 % [95% CI]	Informal N=5 % [95% CI]	Retail total N=352 % [95% CI]	Wholesale N=5 % [95% CI]	Not-for-profit facility N=14 % [95% CI]	For-profit facility N=14 % [95% CI]	Pharmacy N=46 % [95% CI]	Laboratory N=2 % [95% CI]	PPMV N=988 % [95% CI]	Informal N=6 % [95% CI]	Retail total N=1070 % [95% CI]	Wholesale N=24 % [95% CI]
Any malaria blood testing	100 [100; 100]	83 [33.3; 97.9]	10.7 [1.8; 44.3]	100 [100; 100]	0 -	0 -	2.1 [0.8; 5]	0 -	76.3 [45.4; 92.5]	47.7 [19.8; 77.2]	17.3 [9.5; 29.5]	62.8 [11; 95.8]	0.2 [0.1; 0.5]	0 -	2.7 [1.7; 4.5]	8.4 [6.5; 10.8]
Microscopy	100 [100; 100]	83 [33.3; 97.9]	10.7 [1.8; 44.3]	100 [100; 100]	0 -	0 -	2.1 [0.8; 5]	0 -	60.8 [28.4; 85.8]	26.4 [9.5; 55]	1.2 [0.1; 9.1]	62.8 [11; 95.8]	0 -	0 -	1.4 [0.8; 2.3]	0 -
RDT	0 -	83 [33.3; 97.9]	0 -	0 -	0 -	0 -	0.7 [0.2; 2.3]	0 -	19.8 [5.6; 50.6]	31.8 [9.4; 67.7]	16.1 [8.6; 28]	0 -	0.2 [0.1; 0.5]	0 -	1.6 [0.9; 2.6]	8.4 [6.5; 10.8]
WHO pre-qualified RDT	0 -	83 [33.3; 97.9]	0 -	0 -	0 -	0 -	0.7 [0.2; 2.3]	0 -	19.8 [5.6; 50.6]	7.4 [1.1; 36.6]	16.1 [8.6; 28]	0 -	0.2 [0.1; 0.5]	0 -	1.2 [0.8; 2.1]	0 -

Abia Footnote - Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 12

KANO	Rural								Urban							
	Not-for-profit facility N=2 % [95% CI]	For-profit facility N=8 % [95% CI]	Pharmacy N=12 % [95% CI]	Laboratory N=12 % [95% CI]	PPMV N=327 % [95% CI]	Informal N=27 % [95% CI]	Retail total N=388 % [95% CI]	Wholesale N=6 % [95% CI]	Not-for-profit facility N=8 % [95% CI]	For-profit facility N=90 % [95% CI]	Pharmacy N=118 % [95% CI]	Laboratory N=56 % [95% CI]	PPMV N=1030 % [95% CI]	Informal N=26 % [95% CI]	Retail total N=1328 % [95% CI]	Wholesale N=14 % [95% CI]
Any malaria blood testing	100 [100; 100]	70 [20.4; 95.5]	22.3 [4.3; 64.7]	100 [100; 100]	32.4 [27.8; 37.4]	12.3 [3.4; 35.9]	34.3 [29; 40]	26.5 [9.3; 55.9]	100 [100; 100]	71.2 [57.3; 82.1]	34.3 [24.2; 46.1]	98.5 [94.4; 99.6]	27.3 [21.6; 33.8]	27.9 [9.4; 59]	35.2 [29.3; 41.5]	13.7 [2.9; 45.7]
Microscopy	52.8 [6.9; 94.4]	16.9 [4.2; 48.2]	0 -	84.6 [42.8; 97.6]	0 -	0 -	4.7 [1.4; 14.7]	0 -	96.2 [73.4; 99.6]	54 [41; 66.4]	7.6 [2.8; 19.1]	95.9 [88.5; 98.6]	0 -	0 -	10 [7.5; 13.3]	0 -
RDT	47.2 [5.6; 93.1]	65.5 [20; 93.5]	22.3 [4.3; 64.7]	19.7 [3.2; 64.9]	32.4 [27.8; 37.4]	12.3 [3.4; 35.9]	30 [23.6; 37.3]	26.5 [9.3; 55.9]	62.2 [36.7; 82.3]	45 [30.9; 60]	34.2 [24.1; 46]	30.2 [17; 47.8]	27.3 [21.6; 33.8]	27.9 [9.4; 59]	29.7 [24; 36.1]	13.7 [2.9; 45.7]
WHO pre-qualified RDT	47.2 [5.6; 93.1]	65.5 [20; 93.5]	22.3 [4.3; 64.7]	19.7 [3.2; 64.9]	28.9 [24.3; 34]	12.3 [3.4; 35.9]	27.2 [21.8; 33.3]	26.5 [9.3; 55.9]	48.7 [26.9; 71]	43.8 [30.6; 57.9]	31.3 [21.7; 42.9]	27.6 [15.4; 44.4]	25.8 [20.5; 32]	27.9 [9.4; 59]	28 [22.5; 34.3]	13.7 [2.9; 45.7]

Kano Footnote -Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 23

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LAGOS	Rural								Urban							
	Not-for-profit facility N=0 % [95% CI]	For-profit facility N=12 % [95% CI]	Pharmacy N=61 % [95% CI]	Laboratory N=15 % [95% CI]	PPMV N=83 % [95% CI]	Informal N=4 % [95% CI]	Retail total N=175 % [95% CI]	Wholesale N=0 % [95% CI]	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=68 % [95% CI]	Pharmacy N=276 % [95% CI]	Laboratory N=54 % [95% CI]	PPMV N=417 % [95% CI]	Informal N=55 % [95% CI]	Retail total N=873 % [95% CI]	Wholesale N=3 % [95% CI]
Any malaria blood testing	0 -	40.2 [25.2; 57.2]	1.4 [0.3; 5.5]	100 [100; 100]	0.6 [0.1; 5.2]	0 -	6.5 [2.5; 15.5]	0 -	85.7 [36.8; 98.4]	46.2 [35.4; 57.3]	7.4 [4.4; 12.4]	96.9 [87.2; 99.3]	0.4 [0.1; 1.4]	0 -	11.4 [7.6; 16.8]	0 -
Microscopy	0 -	21.8 [15.1; 30.4]	0 -	100 [100; 100]	0 -	0 -	4.3 [1.5; 11.5]	0 -	85.7 [36.8; 98.4]	38.1 [25.3; 52.8]	0 -	96.9 [87.2; 99.3]	0 -	0 -	8.2 [5.6; 11.8]	0 -
RDT	0 -	18.4 [9.6; 32.4]	1.4 [0.3; 5.5]	32.2 [12.5; 61.3]	0.6 [0.1; 5.2]	0 -	3 [1.2; 7.4]	0 -	14.3 [1.6; 63.2]	17.6 [8.7; 32.2]	7.4 [4.4; 12.4]	9.4 [3.7; 21.8]	0.4 [0.1; 1.4]	0 -	4.4 [2.5; 7.7]	0 -
WHO pre-qualified RDT	0 -	18.4 [9.6; 32.4]	1 [0.2; 4]	18 [10; 30.3]	0.6 [0.1; 5.2]	0 -	2.5 [1; 6.1]	0 -	14.3 [1.6; 63.2]	10.1 [4.5; 21]	3.9 [2.1; 7.3]	7.6 [2.7; 19.8]	0.4 [0.1; 1.4]	0 -	2.6 [1.6; 4.4]	0 -

Lagos Footnote - Outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 61

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2.4 Availability of malaria blood testing among antimalarial-stocking outlets

Table 17. Proportion of antimalarial-stocking outlets that had malaria blood testing available on the day of the survey visit, among all outlets surveyed with one or more antimalarials in stock

ABIA

	Not-for-profit facility N=14 % [95% CI]	For-profit facility N=15 % [95% CI]	Pharmacy N=51 % [95% CI]	Laboratory N=2 % [95% CI]	PPMV N=1302 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1395 % [95% CI]	Wholesale N=29 % [95% CI]
Any malaria blood testing	82.7 [53.2; 95.3]	57.8 [29.1; 82]	15.5 [8.6; 26.2]	62.8 [11; 95.8]	0.1 [0; 0.4]	0 -	2.3 [1.4; 3.7]	7.4 [4.5; 11.9]
Microscopy	77.2 [47.4; 92.7]	40.5 [17.3; 68.9]	1.1 [0.1; 7.8]	62.8 [11; 95.8]	0 -	0 -	1.4 [0.9; 2.3]	0 -
RDT	9.3 [2.1; 32.5]	47.3 [21.1; 75.1]	14.4 [7.7; 25.2]	0 -	0.1 [0; 0.4]	0 -	1.2 [0.7; 2.1]	7.4 [4.5; 11.9]
WHO pre-qualified RDT	9.3 [2.1; 32.5]	27.6 [9.2; 59.1]	14.4 [7.7; 25.2]	0 -	0.1 [0; 0.4]	0 -	1 [0.6; 1.7]	0 -

Abia Footnote - N AM-stocking outlets: Private not for profit=14; private not for profit=15; pharmacy=51; PPMV=1302; informal=11; labs = 2; wholesalers= 29. Outlets that had at least 1 AM in stock but did not complete the interview (were not interviewed or completed a partial interview) = 1

KANO

	Not-for-profit facility N=9 % [95% CI]	For-profit facility N=68 % [95% CI]	Pharmacy N=122 % [95% CI]	Laboratory N=1 % [95% CI]	PPMV N=1223 % [95% CI]	Informal N=33 % [95% CI]	Retail total N=1456 % [95% CI]	Wholesale N=19 % [95% CI]
Any malaria blood testing	100 [100; 100]	66.5 [41.1; 84.9]	27.7 [11.4; 53.4]	100 [100; 100]	26.8 [22.6; 31.4]	26.3 [8.8; 57]	28.4 [23.9; 33.4]	23.7 [9.4; 48.3]
Microscopy	73.4 [26; 95.6]	39.8 [22.5; 60.1]	3.4 [0.9; 12.4]	100 [100; 100]	0 -	0 -	1.8 [0.9; 3.5]	0 -
RDT	54.1 [20.5; 84.4]	44.9 [24.5; 67.1]	27.6 [11.3; 53.3]	100 [100; 100]	26.8 [22.6; 31.4]	26.3 [8.8; 57]	27.5 [23.1; 32.3]	23.7 [9.4; 48.3]
WHO pre-qualified RDT	47.6 [16.9; 80.2]	43.9 [23.9; 66]	26.3 [10.8; 51.4]	100 [100; 100]	25.2 [20.6; 30.4]	26.3 [8.8; 57]	26 [21.5; 31.1]	23.7 [9.4; 48.3]

Kano Footnote - N AM-stocking outlets: Private not for profit=9; private not for profit=68; pharmacy=122; PPMV=1223; informal=33; labs = 1; wholesalers= 19. Outlets that had at least 1 AM in stock but did not complete the interview (were not interviewed or completed a partial interview) = 6

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LAGOS

	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=64 % [95% CI]	Pharmacy N=308 % [95% CI]	Laboratory N=0 % [95% CI]	PPMV N=480 % [95% CI]	Informal N=54 % [95% CI]	Retail total N=909 % [95% CI]	Wholesale N=3 % [95% CI]
Any malaria blood testing	85.7 [36.8; 98.4]	47.7 [39.2; 56.3]	7.1 [4.2; 11.8]	0 -	0.5 [0.2; 1.4]	0 -	5.9 [3.7; 9.1]	0 -
Microscopy	85.7 [36.8; 98.4]	35.5 [24.1; 48.8]	0 -	0 -	0 -	0 -	2.4 [1.4; 4.2]	0 -
RDT	14.3 [1.6; 63.2]	20.4 [11.6; 33.2]	7.1 [4.2; 11.8]	0 -	0.5 [0.2; 1.4]	0 -	4 [2.3; 6.8]	0 -
WHO pre-qualified RDT	14.3 [1.6; 63.2]	12.6 [6.3; 23.7]	3.9 [2.1; 7.3]	0 -	0.5 [0.2; 1.4]	0 -	2.4 [1.4; 4.1]	0 -

Lagos Footnote - N AM-stocking outlets: Private not for profit=3; private not for profit=64; pharmacy=308; PPMV=480; informal=54; labs = 0; wholesalers= 3. Outlets that had at least 1 AM in stock but did not complete the interview (were not interviewed or completed a partial interview) = 10

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Table 18. Proportion of antimalarial-stocking outlets that had malaria blood testing available on the day of the survey visit, among all outlets surveyed with one or more antimalarials in stock, disaggregated by urban and rural areas

ABIA

	Rural								Urban							
	Not-for-profit facility N=2 % [95% CI]	For-profit facility N=2 % [95% CI]	Pharmacy N=5 % [95% CI]	Laboratory N=0 % [95% CI]	PPMV N=331 % [95% CI]	Informal N=5 % [95% CI]	Retail total N=345 % [95% CI]	Wholesale N=5 % [95% CI]	Not-for-profit facility N=12 % [95% CI]	For-profit facility N=13 % [95% CI]	Pharmacy N=46 % [95% CI]	Laboratory N=2 % [95% CI]	PPMV N=971 % [95% CI]	Informal N=6 % [95% CI]	Retail total N=1050 % [95% CI]	Wholesale N=24 % [95% CI]
Any malaria blood testing	100 [100; 100]	100 [100; 100]	0 -	0 -	0 -	0 -	1.6 [0.6; 4.3]	0 -	77.5 [42; 94.2]	46.1 [18.1; 76.7]	17.3 [9.5; 29.5]	62.8 [11; 95.8]	0.2 [0.1; 0.5]	0 -	2.6 [1.5; 4.5]	8.4 [6.5; 10.8]
Microscopy	100 [100; 100]	100 [100; 100]	0 -	0 -	0 -	0 -	1.6 [0.6; 4.3]	0 -	70.3 [34.8; 91.3]	24.1 [8.2; 52.9]	1.2 [0.1; 9.1]	62.8 [11; 95.8]	0 -	0 -	1.4 [0.8; 2.3]	0 -
RDT	0 -	100 [100; 100]	0 -	0 -	0 -	0 -	0.7 [0.2; 2.4]	0 -	12.1 [2.6; 41.6]	32.8 [9.6; 69.1]	16.1 [8.6; 28]	0 -	0.2 [0.1; 0.5]	0 -	1.4 [0.8; 2.5]	8.4 [6.5; 10.8]
WHO pre-qualified RDT	0 -	100 [100; 100]	0 -	0 -	0 -	0 -	0.7 [0.2; 2.4]	0 -	12.1 [2.6; 41.6]	7.6 [1.1; 37.5]	16.1 [8.6; 28]	0 -	0.2 [0.1; 0.5]	0 -	1.1 [0.7; 1.9]	0 -

Abia Footnote - Outlets that had at least 1 AM in stock but did not complete the interview (were not interviewed or completed a partial interview) = 1

KANO

	Rural								Urban							
	Not-for-profit facility N=2 % [95% CI]	For-profit facility N=6 % [95% CI]	Pharmacy N=12 % [95% CI]	Laboratory N=0 % [95% CI]	PPMV N=275 % [95% CI]	Informal N=14 % [95% CI]	Retail total N=309 % [95% CI]	Wholesale N=6 % [95% CI]	Not-for-profit facility N=7 % [95% CI]	For-profit facility N=62 % [95% CI]	Pharmacy N=110 % [95% CI]	Laboratory N=1 % [95% CI]	PPMV N=948 % [95% CI]	Informal N=19 % [95% CI]	Retail total N=1147 % [95% CI]	Wholesale N=13 % [95% CI]
Any malaria blood testing	100 [100; 100]	64.5 [15.7; 94.7]	22.3 [4.3; 64.7]	0 -	27.6 [22.4; 33.4]	27.6 [8.3; 61.7]	28.2 [22.6; 34.7]	26.5 [9.3; 55.9]	100 [100; 100]	67.8 [48.5; 82.5]	34.8 [24.9; 46.3]	100 [100; 100]	24.4 [19; 30.8]	15.8 [5.7; 36.8]	28.9 [23.2; 35.4]	14.2 [3; 47]
Microscopy	52.8 [6.9; 94.4]	20 [4.3; 58.1]	0 -	0 -	0 -	0 -	0.5 [0.2; 1.7]	0 -	96.2 [73; 99.6]	52.6 [36.8; 67.9]	7.9 [2.9; 19.9]	100 [100; 100]	0 -	0 -	5.3 [3.1; 8.7]	0 -
RDT	47.2 [5.6; 93.1]	59.2 [14.9; 92.3]	22.3 [4.3; 64.7]	0 -	27.6 [22.4; 33.4]	27.6 [8.3; 61.7]	27.9 [22.4; 34.2]	26.5 [9.3; 55.9]	61.7 [36.3; 82]	35.6 [22.5; 51.3]	34.7 [24.7; 46.2]	100 [100; 100]	24.4 [19; 30.8]	15.8 [5.7; 36.8]	26.4 [20.9; 32.8]	14.2 [3; 47]
WHO pre-qualified RDT	47.2 [5.6; 93.1]	59.2 [14.9; 92.3]	22.3 [4.3; 64.7]	0 -	25.9 [20.2; 32.6]	27.6 [8.3; 61.7]	26.4 [20.7; 33.2]	26.5 [9.3; 55.9]	48.1 [26.2; 70.7]	34 [22.6; 47.5]	31.6 [22.4; 42.6]	100 [100; 100]	23 [18; 28.9]	15.8 [5.7; 36.8]	24.7 [19.6; 30.8]	14.2 [3; 47]

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LAGOS

	Rural								Urban							
	Not-for-profit facility N=0 % [95% CI]	For-profit facility N=10 % [95% CI]	Pharmacy N=54 % [95% CI]	Laboratory N=0 % [95% CI]	PPMV N=81 % [95% CI]	Informal N=4 % [95% CI]	Retail total N=149 % [95% CI]	Wholesale N=0 % [95% CI]	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=54 % [95% CI]	Pharmacy N=254 % [95% CI]	Laboratory N=0 % [95% CI]	PPMV N=399 % [95% CI]	Informal N=50 % [95% CI]	Retail total N=760 % [95% CI]	Wholesale N=3 % [95% CI]
Any malaria blood testing	0 -	47.7 [22.8; 73.7]	1.7 [0.4; 6.9]	0 -	0.6 [0.1; 5.4]	0 -	4.2 [1.4; 12.1]	0 -	85.7 [36.8; 98.4]	47.7 [39.4; 56.2]	7.7 [4.5; 13]	0 -	0.4 [0.1; 1.5]	0 -	6.2 [3.8; 9.9]	0 -
Microscopy	0 -	26.7 [16.7; 39.9]	0 -	0 -	0 -	0 -	1.9 [0.6; 6.3]	0 -	85.7 [36.8; 98.4]	37.4 [24; 53.2]	0 -	0 -	0 -	0 -	2.5 [1.3; 4.6]	0 -
RDT	0 -	21 [8.2; 44.2]	1.7 [0.4; 6.9]	0 -	0.6 [0.1; 5.4]	0 -	2.3 [0.8; 6.2]	0 -	14.3 [1.6; 63.2]	20.3 [10.5; 35.6]	7.7 [4.5; 13]	0 -	0.4 [0.1; 1.5]	0 -	4.3 [2.4; 7.7]	0 -
WHO pre-qualified RDT	0 -	21 [8.2; 44.2]	1.2 [0.3; 5.1]	0 -	0.6 [0.1; 5.4]	0 -	2.2 [0.7; 6.2]	0 -	14.3 [1.6; 63.2]	10.8 [4.9; 22]	4.2 [2.2; 7.9]	0 -	0.4 [0.1; 1.5]	0 -	2.4 [1.3; 4.5]	0 -

Lagos Footnote - Outlets that had at least 1 AM in stock but did not complete the interview (were not interviewed or completed a partial interview) = 10

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3 VOLUMES SOLD

3.1 Median sales volumes of antimalarial AETDs

Table 19. Median number of antimalarial AETDs sold in the week preceding the survey, of any outlets stocking antimalarials

ABIA

	Private Not For-Profit Facility Median Naira [IQR](N)	Private For-Profit Facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any antimalarial	3 [1.9; 8] (59)	1 [0.5; 5] (59)	5 [2.5; 9] (809)	5 [4.5; 8.5] (8)	3 [1.9; 5] (6977)	7 [4; 12] (59)	3 [2; 5] (7971)	14 [5; 20] (243)
Artemether lumefantrine	5 [3; 7] (38)	5 [3; 7] (30)	6 [3; 10] (527)	5 [4.5; 8.5] (8)	3 [2; 5] (5588)	7 [4; 12] (48)	4 [2; 6] (6239)	15 [8; 20] (190)
Artesunate amodiaquine	18 [18; 18] (2)	4 [4; 4] (1)	4 [2.5; 10] (43)	0 -	4 [2; 6] (146)	8 [8; 8] (1)	4 [2; 6] (193)	18 [16; 26] (5)
Artemisinin piperaquine	0 -	0 -	3 [2; 7.4] (12)	0 -	3 [1; 4] (14)	5 [5; 5] (1)	3 [2; 4] (27)	0 -
Dihydroartemisinin piperaquine	0 -	8 [6; 8] (2)	7 [3; 10] (110)	0 -	4 [2; 6] (435)	8 [8; 16.7] (3)	4 [2; 7] (550)	18 [10; 20] (18)
Arterolane piperaquine	0 -	0 -	7 [3; 9] (8)	0 -	5 [4; 10] (5)	0 -	6 [4; 9] (13)	0 -
Any other ACT	0 -	0 -	36 [36; 36] (1)	0 -	60 [60; 60] (1)	0 -	48 [36; 60] (2)	0 -
Quinine	0 [0.2; 0.2] (1)	1 [0.5; 0.5] (2)	2 [0.6; 63] (5)	0 -	1 [0.3; 1.2] (26)	2 [1.6; 1.6] (1)	1 [0.3; 1.2] (35)	0 -
Chloroquine	1 [0.8; 2.3] (4)	1 [0.4; 1.2] (7)	2 [1.2; 5] (17)	0 -	1 [0.8; 2.3] (361)	8 [7.7; 7.7] (1)	1 [0.8; 2.3] (390)	4 [2.9; 6.9] (8)
Sulfadoxine pyrimethamine	10 [0.3; 10] (2)	0 [0.1; 3] (2)	2 [0.3; 5] (35)	0 -	2 [0.3; 5] (276)	7 [0.8; 15] (3)	2 [0.3; 5] (318)	10 [1.5; 18] (5)
Sulfadoxine pyrimethamine amodiaquine	3 [3.3; 3.3] (1)	85 [2; 85] (2)	0 -	0 -	3 [1.4; 4.3] (25)	0 -	3 [1.4; 5] (28)	0 -
Other non-artemisinins	2 [1.5; 1.5] (1)	2 [1.5; 38.3] (3)	2 [0.8; 2] (3)	0 -	1 [0.5; 1.3] (32)	0 -	1 [0.7; 2] (39)	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	1 [0.6; 0.6] (1)	1 [0.6; 0.6] (1)	1 [0.5; 2.2] (8)	0 -	0 [0.3; 1] (6)	1 [1; 1] (1)	1 [0.4; 1] (17)	1 [0.8; 0.8] (2)
Injectable artemether	3 [1.3; 3] (5)	1 [0.8; 1] (5)	1 [1; 2.5] (21)	0 -	1 [0.7; 1.3] (35)	0 -	1 [0.8; 2] (66)	3 [2; 3.3] (10)
Injectable arteether/artemotil	1 [1.1; 1.1] (4)	0 [0.3; 0.4] (4)	1 [0.7; 1.1] (19)	0 -	1 [0.4; 0.7] (27)	0 -	1 [0.4; 1.1] (54)	1 [1.1; 4.3] (5)

Abia Footnote: Volume data were available for the following total number of antimalarial products=8214; by outlet type: Private not for profit=59; private not for profit=59; pharmacy=809; PPMV=6977; informal=59; labs = 8; wholesalers= 243; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =15

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KANO

	Private Not For-Profit Facility Median Naira [IQR](N)	Private For-Profit Facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any antimalarial	4 [1.4; 11.7] (71)	5 [2; 15] (385)	3 [0.8; 8] (1476)	5 [2.5; 6] (3)	5 [1.7; 10] (7197)	4 [1; 7.5] (182)	4 [1.5; 10] (9314)	6 [3; 15] (174)
Artemether lumefantrine	5 [3; 20] (28)	10 [3.8; 21] (164)	5 [1.1; 15] (711)	4 [2.5; 6] (2)	6 [2.5; 12] (3740)	5 [3; 10] (90)	6 [2.5; 12.5] (4735)	5 [3; 12.5] (86)
Artesunate amodiaquine	2 [0.5; 2.5] (6)	5 [3.1; 25] (17)	2 [0; 5] (138)	0 -	5 [1.5; 14] (98)	3 [3; 3] (2)	3 [0.5; 7.5] (261)	1 [0.5; 2] (3)
Artemisinin piperaquine	6 [5.5; 5.5] (1)	3 [2.5; 2.5] (1)	3 [1.5; 3] (23)	0 -	2 [1; 7.4] (31)	2 [2; 2] (1)	2 [1; 3] (57)	0 -
Dihydroartemisinin piperaquine	0 [0; 0] (2)	6 [2.7; 9] (24)	1 [0; 4.4] (148)	0 -	2 [0.7; 5] (415)	4 [1; 6.7] (18)	2 [0.7; 5] (607)	5 [0.7; 10] (19)
Arterolane piperaquine	0 -	0 -	0 [0; 0] (6)	0 -	1 [0; 1] (4)	0 -	0 [0; 1] (10)	0 -
Any other ACT	2 [2; 2] (1)	0 -	0 -	0 -	12 [12; 12] (1)	0 -	2 [2; 12] (2)	0 -
Quinine	6 [0.9; 9.2] (3)	0 [0; 2.1] (4)	2 [0.6; 1.9] (29)	0 -	1 [0.2; 1] (53)	1 [0; 2.9] (2)	1 [0.2; 1.4] (91)	1 [1.2; 1.2] (2)
Chloroquine	1 [1; 1] (1)	1 [0.6; 4.6] (6)	1 [0.3; 3.8] (31)	0 -	2 [0.6; 5.3] (607)	1 [0; 9.3] (14)	2 [0.5; 5.3] (659)	6 [4; 9.6] (16)
Sulfadoxine pyrimethamine	2 [2; 10] (5)	8 [6; 70] (23)	1 [0.3; 10] (73)	5 [5; 5] (1)	10 [5; 20] (510)	1 [0; 1] (11)	10 [4; 19] (623)	15 [15; 30] (10)
Sulfadoxine pyrimethamine amodiaquine	0 -	0 [0; 0] (1)	2 [0; 1.7] (2)	0 -	3 [0; 5.1] (19)	0 -	2 [0; 4] (22)	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	1 [0.9; 4] (5)	2 [1; 3] (51)	2 [1; 4] (110)	0 -	1 [0.5; 1.5] (239)	1 [0.4; 3] (6)	1 [0.6; 2.5] (411)	3 [1; 6] (11)
Injectable artemether	3 [3.3; 11.7] (8)	3 [2; 5] (54)	5 [1.7; 10] (73)	0 -	5 [2.7; 11.7] (971)	5 [3.3; 10] (21)	5 [2.5; 11.7] (1127)	10 [6.7; 66.7] (14)
Injectable arteether/artemotil	2 [1.4; 3.9] (11)	4 [1.4; 14.8] (40)	2 [1.3; 4.3] (132)	0 -	2 [1.1; 3.9] (509)	4 [2.9; 4.3] (17)	2 [1.3; 4.3] (709)	3 [1.3; 85.7] (13)

Kano Footnote: Volume data were available for the following total number of antimalarial products=9488; by outlet type: Private not for profit=71; private not for profit=385; pharmacy=1476; PPMV=7197; informal=182; labs = 3; wholesalers= 174; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =25

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LAGOS

	Private Not For-Profit Facility Median Naira [IQR](N)	Private For-Profit Facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any antimalarial	5 [2.5; 6.7] (13)	3 [1; 7] (228)	4 [2; 10] (2563)	0 -	2 [1; 5] (2285)	3 [2; 5] (175)	3 [1.3; 6] (5264)	50 [7.5; 800] (11)
Artemether lumefantrine	10 [5; 10] (5)	5 [2.3; 15] (99)	5 [2.3; 10] (1703)	0 -	3 [1; 5] (1795)	3 [2; 6] (143)	3 [1.5; 6.8] (3745)	80 [30; 800] (9)
Artesunate amodiaquine	4 [2.5; 6] (2)	3 [2; 9] (9)	4 [2; 10] (197)	0 -	2 [0.5; 4] (62)	3 [0.3; 2.5] (2)	4 [2; 9] (272)	0 -
Artemisinin piperaquine	0 -	1 [1; 1] (1)	3 [1; 3] (69)	0 -	1 [0; 5] (3)	0 -	2 [1; 3] (73)	0 -
Dihydroartemisinin piperaquine	0 -	6 [3; 8] (9)	4 [1.6; 5] (304)	0 -	2 [1; 4] (91)	10 [2.8; 12] (3)	3 [1.3; 5] (407)	18 [6.7; 30] (2)
Arterolane piperaquine	0 -	0 -	3 [2; 6] (25)	0 -	0 -	0 -	3 [2; 6] (25)	0 -
Any other ACT	0 -	0 -	6 [6; 75] (2)	0 -	0 -	0 -	6 [6; 75] (2)	0 -
Quinine	0 -	1 [0.5; 1.7] (11)	0 [0; 0.3] (8)	0 -	0 [0.2; 0.2] (1)	0 -	0 [0.2; 1.2] (20)	0 -
Chloroquine	0 -	1 [1.2; 2.3] (7)	2 [0.8; 5.4] (65)	0 -	1 [0.8; 3] (121)	2 [1.9; 3] (6)	2 [0.8; 3.5] (199)	0 -
Sulfadoxine pyrimethamine	0 -	1 [0.3; 5] (18)	1 [0.3; 5] (118)	0 -	3 [0.3; 7] (195)	3 [0.2; 5] (18)	2 [0.3; 5] (349)	0 -
Sulfadoxine pyrimethamine amodiaquine	0 -	0 -	0 [0.4; 0.4] (1)	0 -	2 [1; 2.4] (17)	3 [2.5; 2.5] (3)	2 [1; 2.5] (21)	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	0 -	2 [0.4; 4] (18)	0 [0.2; 0.6] (12)	0 -	0 -	0 -	1 [0.2; 2] (30)	0 -
Injectable artemether	3 [2.5; 2.5] (4)	2 [0.8; 4] (45)	5 [0.5; 10] (42)	0 -	0 -	0 -	3 [0.8; 8] (91)	0 -
Injectable arteether/artemotil	1 [0.7; 1.1] (2)	1 [0.7; 1.7] (11)	0 [0; 0.7] (17)	0 -	0 -	0 -	1 [0.1; 0.9] (30)	0 -

Lagos Footnote: Volume data were available for the following total number of antimalarial products=5275; by outlet type: Private not for profit=13; private not for profit=228; pharmacy=2563; PPMV=2285; informal=175; labs = 0; wholesalers= 11; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =31

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3.3 Median sales volume of malaria blood tests

Table 20. Median number (N) of malaria blood tests conducted/sold in the week preceding the survey

ABIA

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any malaria blood testing	10 [7; 18] (11)	5 [4; 5] (12)	14 [13; 14] (6)	50 [50; 50] (1)	5 [1; 5] (3)	0 -	7 [5; 15] (33)	25 [25; 25] (1)
Microscopy	10 [6; 15] (10)	5 [5; 10] (7)	10 [10; 30] (2)	50 [50; 50] (1)	0 -	0 -	10 [5; 25] (20)	0 -
RDT	18 [18; 18] (1)	4 [2; 4] (5)	14 [13; 14] (4)	0 -	5 [1; 5] (3)	0 -	5 [4; 14] (13)	25 [25; 25] (1)
WHO pre-qualified RDT	18 [18; 18] (1)	4 [2; 5] (3)	14 [13; 14] (4)	0 -	5 [1; 5] (3)	0 -	6 [4; 14] (11)	0 -
Premier Medical Corporation	0 -	2 [2; 2] (1)	14 [13; 14] (2)	0 -	5 [1; 5] (2)	0 -	13 [2; 14] (5)	0 -
Advy Chemical	0 -	4 [4; 4] (1)	14 [6; 14] (2)	0 -	5 [5; 5] (1)	0 -	6 [4; 14] (4)	0 -
Arkray Healthcare	18 [18; 18] (1)	5 [5; 5] (1)	0 -	0 -	0 -	0 -	5 [5; 18] (2)	0 -
RDT manufacturer: Other	0 -	4 [4; 4] (2)	0 -	0 -	0 -	0 -	4 [4; 4] (2)	25 [25; 25] (1)
RDT manufacturer: Don't know	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -

Abia Footnote: Volume data were available for the following total number of diagnostic products=34; by outlet type: Private not for profit=11; private not for profit=12; pharmacy=6; PPMV=3; informal=0; labs = 1; wholesalers= 1; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =2

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	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any malaria blood testing	12 [4; 30] (16)	15 [9; 25] (104)	12 [10; 20] (55)	52 [20; 150] (85)	15 [10; 22] (407)	15 [15; 15] (14)	15 [10; 30] (681)	50 [30; 50] (4)
Microscopy	12 [4; 12] (8)	12 [6; 25] (49)	10 [10; 12] (6)	140 [50; 300] (59)	0 -	0 -	50 [15; 150] (122)	0 -
RDT	48 [5; 48] (8)	20 [10; 25] (55)	15 [10; 20] (49)	15 [6; 25] (26)	15 [10; 22] (407)	15 [15; 15] (14)	15 [10; 21] (559)	50 [30; 50] (4)
WHO pre-qualified RDT	48 [10; 48] (7)	20 [10; 25] (54)	15 [10; 20] (47)	15 [6; 50] (24)	15 [10; 25] (382)	15 [15; 15] (14)	15 [10; 25] (528)	50 [30; 50] (4)
Premier Medical Corporation	48 [3; 48] (5)	15 [10; 38] (36)	20 [15; 20] (28)	20 [8; 50] (15)	15 [7; 25] (245)	15 [15; 15] (8)	15 [10; 25] (337)	30 [30; 50] (3)
Advy Chemical	0 -	12 [3; 25] (8)	10 [5; 10] (9)	7 [6; 7] (5)	15 [12; 20] (65)	20 [20; 20] (3)	15 [12; 20] (90)	50 [50; 50] (1)
Arkray Healthcare	125	20	30	0	10	10	11	0

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	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
	[20; 125] (2)	[13; 20] (10)	[10; 30] (7)	[0; 8] (4)	[10; 20] (56)	[10; 10] (3)	[10; 20] (82)	-
RDT manufacturer: Other	5 [5; 5] (1)	7 [7; 7] (1)	10 [10; 10] (5)	0 [0; 0] (2)	14 [5; 20] (41)	0 -	10 [5; 20] (50)	0 -
RDT manufacturer: Don't know	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -

Kano Footnote: Volume data were available for the following total number of diagnostic products=685; by outlet type: Private not for profit=16; private not for profit=104; pharmacy=55; PPMV=407; informal=14; labs = 85; wholesalers= 4; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =1

LAGOS

	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
Any malaria blood testing	29 [29; 29] (3)	10 [4; 31] (33)	2 [1; 10] (16)	10 [6; 30] (65)	1 [1; 1] (3)	0 -	10 [4; 28] (120)	0 -
Microscopy	29 [29; 29] (2)	15 [5; 38] (21)	0 -	10 [6; 30] (58)	0 -	0 -	15 [6; 30] (81)	0 -
RDT	20 [20; 20] (1)	9 [1; 14] (12)	2 [1; 10] (16)	3 [3; 10] (7)	1 [1; 1] (3)	0 -	3 [1; 10] (39)	0 -
WHO pre-qualified RDT	20 [20; 20] (1)	10 [6; 14] (10)	3 [1; 10] (8)	4 [3; 15] (6)	1 [1; 1] (3)	0 -	9 [3; 10] (28)	0 -
Premier Medical Corporation	20 [20; 20] (1)	10 [9; 14] (8)	1 [1; 3] (5)	4 [3; 15] (4)	1 [1; 1] (1)	0 -	4 [1; 12] (19)	0 -
Advy Chemical	0 -	10 [10; 10] (1)	10 [10; 10] (3)	10 [3; 10] (2)	1 [1; 1] (1)	0 -	10 [2; 10] (7)	0 -
Arkray Healthcare	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
RDT manufacturer: Other	0 -	6 [1; 6] (3)	1 [1; 2] (8)	3 [3; 3] (1)	3 [3; 3] (1)	0 -	2 [1; 6] (13)	0 -
RDT manufacturer: Don't know	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -

Lagos Footnote: Volume data were available for the following total number of diagnostic products=120; by outlet type: Private not for profit=3; private not for profit=33; pharmacy=16; PPMV=3; informal=0; labs = 65; wholesalers= 0; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =2

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4 MARKET SHARE

4.1 Market share for antimalarials

Table 21. Total (weighted) volumes of antimalarials sold in the previous week, by stratum

ABIA

Total volumes of antimalarials sold in the previous week, by stratum	Retail total N=7959 N [95% CI]	Not-for-profit facility N=59 N [95% CI]	For-profit facility N=58 N [95% CI]	Pharmacy N=808 N [95% CI]	Laboratory N=8 N [95% CI]	PPMV N=6970 N [95% CI]	Informal N=56 N [95% CI]
Any antimalarial	140257.8 [80395.1; 200120.5]	1459.3 [104.7; 2813.9]	967 [192; 1742]	24775.5 [0; 58414.1]	78.6 [0; 0]	111605.9 [78166.7; 145045]	1371.5 [0; 4475]
Artemether lumefantrine	113084.8 [67695.6; 158474.1]	880.1 [214.6; 1545.5]	379.3 [235.6; 522.9]	18519.1 [0; 44419]	78.6 [0; 0]	92029.1 [65738.3; 118319.8]	1198.7 [0; 4270.5]
Artesunate amodiaquine	4977.2 [1922.8; 8031.7]	371.2 [0; 0]	5.9 [0; 0]	1246.3 [86.9; 2405.6]	0 -	3339 [1795; 4882.9]	15 [0; 0]
Artemisinin piperaquine	527.3 [0; 1143.8]	0 -	0 -	256.5 [0; 1110.4]	0 -	261.5 [3.4; 519.7]	9.3 [0; 0]
Dihydroartemisinin piperaquine	10954.3 [4056; 17852.6]	0 -	38.8 [0; 283.1]	2821.1 [0; 6446.7]	0 -	8018.4 [4206.5; 11830.3]	76 [0; 232.6]
Arterolane piperaquine	474.2 [0; 1165.3]	0 -	0 -	255.9 [0; 620.5]	0 -	218.3 [0; 938.1]	0 -
Any other ACT	360.4 [0; 0]	0 -	0 -	135.2 [0; 0]	0 -	225.3 [0; 0]	0 -
Quinine	361.2 [0; 838.6]	1.5 [0; 0]	7 [0; 38.9]	254.9 [0; 953.5]	0 -	93.5 [26.3; 160.6]	4.4 [0; 0]
Chloroquine	3012.6 [2154.2; 3870.9]	14 [6.2; 21.8]	117.9 [0; 420.5]	261.9 [6.8; 516.9]	0 -	2595.9 [1965.3; 3226.5]	22.8 [0; 0]
Sulfadoxine pyrimethamine	3894.7 [2272.2; 5517.3]	28.4 [0; 345.3]	14 [0; 157.5]	547.9 [0; 1701.2]	0 -	3261.8 [2263.1; 4260.6]	42.5 [0; 0]
Sulfadoxine pyrimethamine amodiaquine	944.5 [0; 2112.7]	6.6 [0; 0]	240.9 [0; 2943.2]	0 -	0 -	697 [0; 1419]	0 -
Other non-artemisinins	591 [0; 1436]	2.2 [0; 0]	119.1 [0; 1357.3]	26.1 [0; 96]	0 -	443.5 [0; 1072.6]	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	86.9 [0; 235]	1.8 [0; 0]	2.3 [0; 0]	68.3 [0; 785.4]	0 -	11.8 [2.6; 21]	2.8 [0; 0]
Injectable artemether	761.4 [275.3; 1247.5]	124.5 [0; 316.6]	33 [0; 82.6]	281.9 [0; 700.4]	0 -	322 [42.9; 601.1]	0 -
Injectable arteether/artemotil	227.2 [73.2; 381.2]	29 [0; 80.8]	8.8 [0; 24.8]	100.5 [0; 275]	0 -	88.9 [37; 140.9]	0 -

Abia Footnote: Volume data were available for the following total number of antimalarial products=8202; by outlet type: Private not for profit=59; private not for profit=58; pharmacy=808; PPMV=6970; informal=56; labs = 8; wholesalers= 243; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =15

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Percentage of screened outlets stocking:	Retail total N=9307 N [95% CI]	Not-for-profit facility N=71 N [95% CI]	For-profit facility N=384 N [95% CI]	Pharmacy N=1476 N [95% CI]	Laboratory N=3 N [95% CI]	PPMV N=7191 N [95% CI]	Informal N=182 N [95% CI]
Any antimalarial	326630.1 [181482.1; 471778.2]	4333.8 [0; 10598.6]	10768.5 [4649.2; 16887.9]	39533.9 [0; 81648.7]	23.5 [0; 0]	264145.9 [157216.3; 371075.5]	7824.5 [2547; 13102]
Artemether lumefantrine	192037.6 [100323.1; 283752.1]	3404.7 [0; 9053.4]	5987.1 [1777; 10197.1]	28450.9 [0; 62113.1]	14.8 [0; 0]	149646.5 [88452.4; 210840.6]	4533.7 [1539.3; 7528.1]
Artesunate amodiaquine	4666.3 [2119.9; 7212.8]	24.2 [12; 36.4]	301.8 [0; 710.9]	2255.3 [363.4; 4147.3]	0 -	2038.9 [621.3; 3456.6]	46.1 [0; 558.6]
Artemisinin piperaquine	760.4 [0; 1896.4]	12.7 [0; 0]	1.8 [0; 0]	206 [0; 473.5]	0 -	510.6 [0; 1397.9]	29.3 [0; 0]
Dihydroartemisinin piperaquine	8183.2 [4805.6; 11560.7]	4.4 [0; 57.7]	196.1 [59.9; 332.4]	2059.3 [1039.2; 3079.3]	0 -	5557.6 [2835.8; 8279.4]	365.7 [0; 851.9]
Arterolane piperaquine	48.7 [0; 121.7]	0 -	0 -	41 [0; 127.3]	0 -	7.7 [0; 21.9]	0 -
Any other ACT	16.1 [0; 98.4]	4.6 [0; 0]	0 -	0 -	0 -	11.5 [0; 0]	0 -
Quinine	419.7 [135.6; 703.7]	41.3 [0; 109]	2.4 [0; 9.4]	179.4 [0.3; 358.4]	0 -	165.5 [65.7; 265.2]	31.1 [0; 0]
Chloroquine	16035.5 [8866.6; 23204.5]	0.4 [0; 0]	32 [0; 65.3]	259.2 [0; 521.1]	0 -	15187.1 [8220.6; 22153.6]	556.8 [0; 1319.7]
Sulfadoxine pyrimethamine	32903.4 [16948.7; 48858.1]	60.8 [0; 221.4]	2123.7 [0; 5504.5]	1094.2 [465.4; 1722.9]	8.7 [0; 0]	29128.3 [15036.7; 43219.9]	487.7 [0; 1221.3]
Sulfadoxine pyrimethamine amodiaquine	257 [0; 594]	0 -	0 [0; 0]	8.1 [0; 106.1]	0 -	248.9 [0; 591.8]	0 -
Other non-artemisinins	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	3940.1 [0; 8525.1]	72.3 [0; 155.3]	410.7 [236.9; 584.6]	2417 [0; 6735.5]	0 -	992 [532.7; 1451.4]	48 [0; 124.4]
Injectable artemether	58247.1 [34646.8; 81847.3]	575.5 [36.9; 1114]	904.9 [478; 1331.9]	1223.4 [716.6; 1730.1]	0 -	54051.9 [30517.5; 77586.3]	1491.4 [0; 3088.5]
Injectable arteether/artemotil	9115 [3352.6; 14877.4]	132.8 [0; 293.7]	808 [107.8; 1508.3]	1340.1 [0; 2838]	0 -	6599.4 [2262.9; 10935.9]	234.7 [0; 493]

Kano Footnote: Volume data were available for the following total number of antimalarial products=9481; by outlet type: Private not for profit=71; private not for profit=384; pharmacy=1476; PPMV=7191; informal=182; labs = 3; wholesalers= 174; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =25

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Percentage of screened outlets stocking:	Retail total N=5262 % [95% CI]	Not-for-profit facility N=13 % [95% CI]	For-profit facility N=228 % [95% CI]	Pharmacy N=2561 % [95% CI]	Laboratory N=0 % [95% CI]	PPMV N=2285 % [95% CI]	Informal N=175 % [95% CI]
Any antimalarial	265178.5 [131298.7; 399058.3]	718.9 [0; 6528]	11350.1 [4808.3; 17891.9]	177422.1 [51911.6; 302932.5]	0 -	65229.6 [40448.5; 90010.8]	10457.8 [0; 24070.3]
Artemether lumefantrine	207266.8 [91196.8; 323336.8]	474.5 [0; 4331.9]	8103.5 [2698.3; 13508.7]	138528.4 [27391.2; 249665.6]	0 -	51011.2 [33929.1; 68093.4]	9149.3 [0; 21519.8]
Artesunate amodiaquine	17434.5 [5877.1; 28991.8]	134.5 [0; 0]	448 [0; 1091.1]	15653.5 [4776.2; 26530.8]	0 -	1185.6 [250.8; 2120.3]	12.9 [0; 155.8]
Artemisinin piperaquine	1494.9 [570.3; 2419.4]	0 -	11.2 [0; 0]	1465.6 [543.6; 2387.6]	0 -	18.1 [0; 78.5]	0 -
Dihydroartemisinin piperaquine	14429.2 [9103.3; 19755]	0 -	352.4 [0; 723.8]	11576.4 [7241.9; 15910.9]	0 -	2438.2 [880.5; 3995.9]	62.1 [0; 0]
Arterolane piperaquine	845.5 [357.3; 1333.8]	0 -	0 -	845.5 [357.3; 1333.8]	0 -	0 -	0 -
Any other ACT	282.9 [0; 2613.8]	0 -	0 -	282.9 [0; 2613.8]	0 -	0 -	0 -
Quinine	102.4 [9.4; 195.5]	0 -	70.8 [0; 161.2]	29.9 [0; 78.4]	0 -	1.7 [0; 0]	0 -
Chloroquine	5032.5 [2611.1; 7453.9]	0 -	121.4 [0; 244]	2527.3 [673; 4381.6]	0 -	2210.6 [1012.5; 3408.7]	173.1 [0; 518.8]
Sulfadoxine pyrimethamine	13873 [5424.7; 22321.3]	0 -	621.6 [0; 1452.6]	4211 [1; 8421.1]	0 -	8124.2 [1534.7; 14713.7]	916.1 [0; 1939.1]
Sulfadoxine pyrimethamine amodiaquine	385.3 [121; 649.7]	0 -	0 -	1 [0; 0]	0 -	240 [144.6; 335.5]	144.3 [0; 706]
Other non-artemisinins	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Oral artemisinin monotherapy	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Rectal artesunate	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Injectable artesunate	442 [99.3; 784.8]	0 -	374.8 [32.1; 717.5]	67.2 [18.9; 115.5]	0 -	0 -	0 -
Injectable artemether	3437.8 [1338.4; 5537.2]	81.7 [50; 113.3]	1179.1 [588.8; 1769.4]	2177 [131.6; 4222.5]	0 -	0 -	0 -
Injectable arteether/artemotil	151.6 [77.9; 225.3]	28.2 [0; 0]	67.2 [19.2; 115.1]	56.2 [12; 100.4]	0 -	0 -	0 -

Lagos Footnote: Volume data were available for the following total number of antimalarial products=5273; by outlet type: Private not for profit=13; private not for profit=228; pharmacy=2561; PPMV=2285; informal=175; labs = 0; wholesalers= 11; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =31

Table 22. Market share of antimalarials sold in the previous week, by stratum

ABIA

	Retail total	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal

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% of antimalarials sold in the previous week, by stratum	N=7959 %	N=59 %	N=58 %	N=808 %	N=8 %	N=6970 %	N=56 %
Antimalarial type							
Any antimalarial	100.00%	1.04%	0.69%	17.66%	0.06%	79.57%	0.98%
Artemether lumefantrine	80.63%	0.63%	0.27%	13.20%	0.06%	65.61%	0.85%
Artesunate amodiaquine	3.55%	0.26%	0.00%	0.89%	0.00%	2.38%	0.01%
Artemisinin piperaquine	0.38%	0.00%	0.00%	0.18%	0.00%	0.19%	0.01%
Dihydroartemisinin piperaquine	7.81%	0.00%	0.03%	2.01%	0.00%	5.72%	0.05%
Arterolane piperaquine	0.34%	0.00%	0.00%	0.18%	0.00%	0.16%	0.00%
Any other ACT	0.26%	0.00%	0.00%	0.10%	0.00%	0.16%	0.00%
Quinine	0.26%	0.00%	0.00%	0.18%	0.00%	0.07%	0.00%
Chloroquine	2.15%	0.01%	0.08%	0.19%	0.00%	1.85%	0.02%
Sulfadoxine pyrimethamine	2.78%	0.02%	0.01%	0.39%	0.00%	2.33%	0.03%
Sulfadoxine pyrimethamine amodiaquine	0.67%	0.00%	0.17%	0.00%	0.00%	0.50%	0.00%
Other non-artemisinins	0.42%	0.00%	0.08%	0.02%	0.00%	0.32%	0.00%
Oral artemisinin monotherapy	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rectal artesunate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Injectable artesunate	0.06%	0.00%	0.00%	0.05%	0.00%	0.01%	0.00%
Injectable artemether	0.54%	0.09%	0.02%	0.20%	0.00%	0.23%	0.00%
Injectable arteether/artemotil	0.16%	0.02%	0.01%	0.07%	0.00%	0.06%	0.00%

Abia Footnote: Volume data were available for the following total number of antimalarial products=8202; by outlet type: Private not for profit=59; private not for profit=58; pharmacy=808; PPMV=6970; informal=56; labs = 8; wholesalers= 243; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =15

KANO

% of antimalarials sold in the previous week, by stratum	Retail total N=9307 %	Not-for-profit facility N=71 %	For-profit facility N=384 %	Pharmacy N=1476 %	Laboratory N=3 %	PPMV N=7191 %	Informal N=182 %
Antimalarial type							
Any antimalarial	100%	1%	3%	12%	0%	81%	2%
Artemether lumefantrine	59%	1%	2%	9%	0%	46%	1%
Artesunate amodiaquine	1%	0%	0%	1%	0%	1%	0%
Artemisinin piperaquine	0%	0%	0%	0%	0%	0%	0%
Dihydroartemisinin piperaquine	3%	0%	0%	1%	0%	2%	0%
Arterolane piperaquine	0%	0%	0%	0%	0%	0%	0%
Any other ACT	0%	0%	0%	0%	0%	0%	0%
Quinine	0%	0%	0%	0%	0%	0%	0%
Chloroquine	5%	0%	0%	0%	0%	5%	0%
Sulfadoxine pyrimethamine	10%	0%	1%	0%	0%	9%	0%
Sulfadoxine pyrimethamine amodiaquine	0%	0%	0%	0%	0%	0%	0%
Other non-artemisinins	0%	0%	0%	0%	0%	0%	0%
Oral artemisinin monotherapy	0%	0%	0%	0%	0%	0%	0%
Rectal artesunate	0%	0%	0%	0%	0%	0%	0%
Injectable artesunate	1%	0%	0%	1%	0%	0%	0%

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% of antimalarials sold in the previous week, by stratum	Retail total N=9307 %	Not-for-profit facility N=71 %	For-profit facility N=384 %	Pharmacy N=1476 %	Laboratory N=3 %	PPMV N=7191 %	Informal N=182 %
Injectable artemether	18%	0%	0%	0%	0%	17%	0%
Injectable arteether/artemotil	3%	0%	0%	0%	0%	2%	0%
Kano Footnote: Volume data were available for the following total number of antimalarial products=9481; by outlet type: Private not for profit=71; private not for profit=384; pharmacy=1476; PPMV=7191; informal=182; labs = 3; wholesalers= 174; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =25							

LAGOS

% of antimalarials sold in the previous week, by stratum	Retail total N=5262 %	Not-for-profit facility N=13 %	For-profit facility N=228 %	Pharmacy N=2561 %	Laboratory N=0 %	PPMV N=2285 %	Informal N=175 %
Antimalarial type							
Any antimalarial	100%	0.3%	4%	67%	0.0%	25%	4%
Artemether lumefantrine	78%	0%	3%	52%	0%	19%	3%
Artesunate amodiaquine	7%	0%	0%	6%	0%	0%	0%
Artemisinin piperaquine	1%	0%	0%	1%	0%	0%	0%
Dihydroartemisinin piperaquine	5%	0%	0%	4%	0%	1%	0%
Arterolane piperaquine	0%	0%	0%	0%	0%	0%	0%
Any other ACT	0%	0%	0%	0%	0%	0%	0%
Quinine	0%	0%	0%	0%	0%	0%	0%
Chloroquine	2%	0%	0%	1%	0%	1%	0%
Sulfadoxine pyrimethamine	5%	0%	0%	2%	0%	3%	0%
Sulfadoxine pyrimethamine amodiaquine	0%	0%	0%	0%	0%	0%	0%
Other non-artemisinins	0%	0%	0%	0%	0%	0%	0%
Oral artemisinin monotherapy	0%	0%	0%	0%	0%	0%	0%
Rectal artesunate	0%	0%	0%	0%	0%	0%	0%
Injectable artesunate	0%	0%	0%	0%	0%	0%	0%
Injectable artemether	1%	0%	0%	1%	0%	0%	0%
Injectable arteether/artemotil	0%	0%	0%	0%	0%	0%	0%
Lagos Footnote: Volume data were available for the following total number of antimalarial products=5273; by outlet type: Private not for profit=13; private not for profit=228; pharmacy=2561; PPMV=2285; informal=175; labs = 0; wholesalers= 11; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =31							

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Table 23. Market share of antimalarials sold in the previous week by outlet type, by stratum

ABIA

% volumes of antimalarials sold in the previous week within each outlet type, by stratum	Retail total N=7959 %	Not-for-profit facility N=59 %	For-profit facility N=58 %	Pharmacy N=808 %	Laboratory N=8 %	PPMV N=6970 %	Informal N=56 %
Any antimalarial	100%	100%	100%	100%	100%	100%	100%
Artemether lumefantrine	81%	60%	39%	75%	100%	82%	87%
Artesunate amodiaquine	4%	25%	1%	5%	0%	3%	1%
Artemisinin piperaquine	0%	0%	0%	1%	0%	0%	1%
Dihydroartemisinin piperaquine	8%	0%	4%	11%	0%	7%	6%
Arterolane piperaquine	0%	0%	0%	1%	0%	0%	0%
Any other ACT	0%	0%	0%	1%	0%	0%	0%
Quinine	0%	0%	1%	1%	0%	0%	0%
Chloroquine	2%	1%	12%	1%	0%	2%	2%
Sulfadoxine pyrimethamine	3%	2%	1%	2%	0%	3%	3%
Sulfadoxine pyrimethamine amodiaquine	1%	0%	25%	0%	0%	1%	0%
Other non-artemisinins	0%	0%	12%	0%	0%	0%	0%
Oral artemisinin monotherapy	0%	0%	0%	0%	0%	0%	0%
Rectal artesunate	0%	0%	0%	0%	0%	0%	0%
Injectable artesunate	0%	0%	0%	0%	0%	0%	0%
Injectable artemether	1%	9%	3%	1%	0%	0%	0%
Injectable arteether/artemotil	0%	2%	1%	0%	0%	0%	0%

Abia Footnote: Volume data were available for the following total number of antimalarial products=8202; by outlet type: Private not for profit=59; private not for profit=58; pharmacy=808; PPMV=6970; informal=56; labs = 8; wholesalers= 243; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =15

KANO

% volumes of antimalarials sold in the previous week within each outlet type, by stratum	Retail total N=9307 %	Not-for-profit facility N=71 %	For-profit facility N=384 %	Pharmacy N=1476 %	Laboratory N=3 %	PPMV N=7191 %	Informal N=182 %
Any antimalarial	100%	100%	100%	100%	100%	100%	100%
Artemether lumefantrine	59%	79%	56%	72%	63%	57%	58%
Artesunate amodiaquine	1%	1%	3%	6%	0%	1%	1%
Artemisinin piperaquine	0%	0%	0%	1%	0%	0%	0%
Dihydroartemisinin piperaquine	3%	0%	2%	5%	0%	2%	5%
Arterolane piperaquine	0%	0%	0%	0%	0%	0%	0%
Any other ACT	0%	0%	0%	0%	0%	0%	0%
Quinine	0%	1%	0%	0%	0%	0%	0%
Chloroquine	5%	0%	0%	1%	0%	6%	7%
Sulfadoxine pyrimethamine	10%	1%	20%	3%	37%	11%	6%
Sulfadoxine pyrimethamine amodiaquine	0%	0%	0%	0%	0%	0%	0%
Other non-artemisinins	0%	0%	0%	0%	0%	0%	0%
Oral artemisinin monotherapy	0%	0%	0%	0%	0%	0%	0%
Rectal artesunate	0%	0%	0%	0%	0%	0%	0%

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% volumes of antimalarials sold in the previous week within each outlet type, by stratum	Retail total N=9307 %	Not-for-profit facility N=71 %	For-profit facility N=384 %	Pharmacy N=1476 %	Laboratory N=3 %	PPMV N=7191 %	Informal N=182 %
Injectable artesunate	1%	2%	4%	6%	0%	0%	1%
Injectable artemether	18%	13%	8%	3%	0%	20%	19%
Injectable arteether/artemotil	3%	3%	8%	3%	0%	2%	3%

Kano Footnote: Volume data were available for the following total number of antimalarial products=9481; by outlet type: Private not for profit=71; private not for profit=384; pharmacy=1476; PPMV=7191; informal=182; labs = 3; wholesalers= 174; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =25

LAGOS

% volumes of antimalarials sold in the previous week within each outlet type, by stratum	Retail total N=5262 %	Not-for-profit facility N=13 %	For-profit facility N=228 %	Pharmacy N=2561 %	Laboratory N=0 %	PPMV N=2285 %	Informal N=175 %
Any antimalarial	100%	100%	100%	100%	0%	100%	100%
Artemether lumefantrine	78%	66%	71%	78%	0%	78%	87%
Artesunate amodiaquine	7%	19%	4%	9%	0%	2%	0%
Artemisinin piperaquine	1%	0%	0%	1%	0%	0%	0%
Dihydroartemisinin piperaquine	5%	0%	3%	7%	0%	4%	1%
Arterolane piperaquine	0%	0%	0%	0%	0%	0%	0%
Any other ACT	0%	0%	0%	0%	0%	0%	0%
Quinine	0%	0%	1%	0%	0%	0%	0%
Chloroquine	2%	0%	1%	1%	0%	3%	2%
Sulfadoxine pyrimethamine	5%	0%	5%	2%	0%	12%	9%
Sulfadoxine pyrimethamine amodiaquine	0%	0%	0%	0%	0%	0%	1%
Other non-artemisinins	0%	0%	0%	0%	0%	0%	0%
Oral artemisinin monotherapy	0%	0%	0%	0%	0%	0%	0%
Rectal artesunate	0%	0%	0%	0%	0%	0%	0%
Injectable artesunate	0%	0%	3%	0%	0%	0%	0%
Injectable artemether	1%	11%	10%	1%	0%	0%	0%
Injectable arteether/artemotil	0%	4%	1%	0%	0%	0%	0%

Lagos Footnote: Volume data were available for the following total number of antimalarial products=5273; by outlet type: Private not for profit=13; private not for profit=228; pharmacy=2561; PPMV=2285; informal=175; labs = 0; wholesalers= 11; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =31

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4.2 Market for malaria blood testing overall

Table 24. Total volumes of antimalarials sold or conducted in the previous week, by stratum.

ABIA

	Retail total N=33 N [95% CI]	Not-for-profit facility N=11 N [95% CI]	For-profit facility N=12 N [95% CI]	Pharmacy N=6 N [95% CI]	Laboratory N=1 N [95% CI]	PPMV N=3 N [95% CI]	Informal N=0 N [95% CI]
Any malaria blood testing	2397.1 [169.5; 4624.7]	1303.4 [0; 3308.9]	344 [182.8; 505.3]	363.7 [115; 612.3]	362.5 [0; 0]	23.6 [0; 67.3]	0 -
Microscopy	1942 [10.4; 3873.7]	1258.8 [0; 3278.9]	238.5 [66.7; 410.3]	82.3 [0; 498.3]	362.5 [0; 0]	0 -	0 -
RDT	455.1 [102.4; 807.7]	44.6 [0; 0]	105.5 [33.8; 177.3]	281.4 [0; 577.3]	0 -	23.6 [0; 67.3]	0 -
WHO pre-qualified RDT	405 [122; 688]	44.6 [0; 0]	55.5 [14.3; 96.7]	281.4 [0; 577.3]	0 -	23.6 [0; 67.3]	0 -
Premier Medical Corporation	225.1 [0; 552.1]	0 -	15.7 [0; 0]	193.2 [0; 1291.9]	0 -	16.2 [0; 164.9]	0 -
Advy Chemical	109.8 [0; 260.9]	0 -	14.3 [0; 0]	88.2 [0; 584.5]	0 -	7.3 [0; 0]	0 -
Arkray Healthcare	70.1 [0; 289.6]	44.6 [0; 0]	25.5 [0; 0]	0 -	0 -	0 -	0 -
RDT manufacturer: Other	50 [0; 423.2]	0 -	50 [0; 423.2]	0 -	0 -	0 -	0 -
RDT manufacturer: Don't know	0 -	0 -	0 -	0 -	0 -	0 -	0 -

Abia Footnote: Volume data were available for the following total number of diagnostic products=34; by outlet type: Private not for profit=11; private not for profit=12; pharmacy=6; PPMV=3; informal=0; labs = 1; wholesalers= 1; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =2

KANO

	Retail total N=681 N [95% CI]	Not-for-profit facility N=16 N [95% CI]	For-profit facility N=104 N [95% CI]	Pharmacy N=55 N [95% CI]	Laboratory N=85 N [95% CI]	PPMV N=407 N [95% CI]	Informal N=14 N [95% CI]
Any malaria blood testing	126722.9 [0; 262797.9]	1061.3 [148.7; 1973.9]	5572.6 [3586.7; 7558.5]	2100.7 [1158.9; 3042.4]	75157.9 [0; 205746.1]	41634.4 [23859.3; 59409.5]	1196.1 [169.6; 2222.5]
Microscopy	75631.9 [0; 206187.4]	330.5 [71.8; 589.3]	2099.8 [1330.8; 2868.8]	146.7 [0; 337.2]	73054.9 [0; 204790.9]	0 -	0 -
RDT	51091 [31821.6; 70360.4]	730.8 [0; 1770.4]	3472.8 [1403; 5542.6]	1954 [1105.3; 2802.7]	2103 [387.6; 3818.3]	41634.4 [23859.3; 59409.5]	1196.1 [169.6; 2222.5]
WHO pre-qualified RDT	48138 [30457.4; 65818.6]	718.2 [0; 1793.8]	3460.6 [1390; 5531.3]	1905.5 [1077.2; 2733.8]	2056.5 [330.7; 3782.4]	38801.2 [22517.9; 55084.4]	1196.1 [169.6; 2222.5]
Premier Medical Corporation	33721.1 [19432.1; 48010.2]	620.8 [0; 1751.7]	2333.4 [429; 4237.8]	1294.9 [520.5; 2069.4]	1975.6 [271.8; 3679.4]	26484.9 [13439.5; 39530.2]	1011.6 [0; 2123.4]
Advy Chemical	7599.9	0	370.5	101.6	35.8	6940.2	151.8

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	Retail total N=681 N [95% CI]	Not-for-profit facility N=16 N [95% CI]	For-profit facility N=104 N [95% CI]	Pharmacy N=55 N [95% CI]	Laboratory N=85 N [95% CI]	PPMV N=407 N [95% CI]	Informal N=14 N [95% CI]
	[2115; 13084.8]	-	[14.7; 726.2]	[46.1; 157.2]	[0; 76.8]	[1428.9; 12451.6]	[0; 0]
Arkray Healthcare	5575.2 [3260.3; 7890.2]	97.4 [0; 1056]	756.7 [0; 1748.1]	339.8 [0; 765]	45.2 [0; 171.2]	4303.4 [1976.5; 6630.4]	32.6 [0; 86.3]
RDT manufacturer: Other	4194.7 [367.8; 8021.6]	12.7 [0; 0]	12.1 [0; 0]	217.6 [0; 564.5]	46.4 [0; 604.7]	3905.9 [94.7; 7717.1]	0 -
RDT manufacturer: Don't know	0 -	0 -	0 -	0 -	0 -	0 -	0 -

Kano Footnote: Volume data were available for the following total number of diagnostic products=685; by outlet type: Private not for profit=16; private not for profit=104; pharmacy=55; PPMV=407; informal=14; labs = 85; wholesalers= 4; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =1

LAGOS

	Retail total N=120 % [95% CI]	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=33 % [95% CI]	Pharmacy N=16 % [95% CI]	Laboratory N=65 % [95% CI]	PPMV N=3 % [95% CI]	Informal N=0 % [95% CI]
Any malaria blood testing	15489.8 [7477.2; 23502.3]	664.2 [0; 3751.7]	6246.7 [1909.1; 10584.3]	566.1 [0; 1233.3]	7998.8 [2869; 13128.5]	14 [4.4; 23.6]	0 -
Microscopy	13041.2 [5827.9; 20254.6]	601 [0; 4459.1]	4592.7 [1314.6; 7870.9]	0 -	7847.5 [2691.4; 13003.7]	0 -	0 -
RDT	2448.5 [644.9; 4252.2]	63.2 [0; 0]	1653.9 [0; 3471.1]	566.1 [0; 1233.3]	151.3 [0; 365.7]	14 [4.4; 23.6]	0 -
WHO pre-qualified RDT	1416.3 [712.3; 2120.3]	63.2 [0; 0]	726.4 [295.4; 1157.4]	484.4 [0; 1191]	128.3 [0; 380.5]	14 [4.4; 23.6]	0 -
Premier Medical Corporation	910.4 [464.3; 1356.6]	63.2 [0; 0]	591.1 [140.1; 1042.1]	147.9 [0; 303.3]	105.1 [0; 467.3]	3.2 [0; 0]	0 -
Advy Chemical	402.9 [0; 1173.8]	0 -	24.2 [0; 0]	350.4 [0; 1654.2]	23.3 [0; 207.8]	5.1 [0; 0]	0 -
Arkray Healthcare	0 -	0 -	0 -	0 -	0 -	0 -	0 -
RDT manufacturer: Other	1135.2 [0; 3077.7]	0 -	1038.6 [0; 4490]	67.9 [0; 144.4]	22.9 [0; 0]	5.8 [0; 0]	0 -
RDT manufacturer: Don't know	0 -	0 -	0 -	0 -	0 -	0 -	0 -

Lagos Footnote: Volume data were available for the following total number of diagnostic products=120; by outlet type: Private not for profit=3; private not for profit=33; pharmacy=16; PPMV=3; informal=0; labs = 65; wholesalers= 0; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =2

Table 25. Overall market share of malaria blood tests sold or conducted in the previous week, by stratum.

ABIA

	Retail total N=33	Not-for-profit facility N=11	For-profit facility N=12	Pharmacy N=6	Laboratory N=1	PPMV N=3	Informal N=0

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	%	%	%	%	%	%	%
Any malaria blood testing	100.00%	54.37%	14.35%	15.17%	15.12%	0.98%	0.00%
Microscopy	81.01%	52.51%	9.95%	3.43%	15.12%	0.00%	0.00%
RDT	18.99%	1.86%	4.40%	11.74%	0.00%	0.98%	0.00%
WHO pre-qualified RDT	16.90%	1.86%	2.32%	11.74%	0.00%	0.98%	0.00%
Premier Medical Corporation	9.39%	0.00%	0.65%	8.06%	0.00%	0.68%	0.00%
Advy Chemical	4.58%	0.00%	0.60%	3.68%	0.00%	0.30%	0.00%
Arkray Healthcare	2.92%	1.86%	1.06%	0.00%	0.00%	0.00%	0.00%
RDT manufacturer: Other	2.09%	0.00%	2.09%	0.00%	0.00%	0.00%	0.00%
RDT manufacturer: Don't know	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Abia Footnote: Volume data were available for the following total number of diagnostic products=34; by outlet type: Private not for profit=11; private not for profit=12; pharmacy=6; PPMV=3; informal=0; labs = 1; wholesalers= 1; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =2

KANO

	Retail total N=681 %	Not-for-profit facility N=16 %	For-profit facility N=104 %	Pharmacy N=55 %	Laboratory N=85 %	PPMV N=407 %	Informal N=14 %
Any malaria blood testing	100%	1%	4%	2%	59%	33%	1%
Microscopy	60%	0%	2%	0%	58%	0%	0%
RDT	40%	1%	3%	2%	2%	33%	1%
WHO pre-qualified RDT	38%	1%	3%	2%	2%	31%	1%
Premier Medical Corporation	27%	0%	2%	1%	2%	21%	1%
Advy Chemical	6%	0%	0%	0%	0%	5%	0%
Arkray Healthcare	4%	0%	1%	0%	0%	3%	0%
RDT manufacturer: Other	3%	0%	0%	0%	0%	3%	0%
RDT manufacturer: Don't know	0%	0%	0%	0%	0%	0%	0%

Kano Footnote: Volume data were available for the following total number of diagnostic products=685; by outlet type: Private not for profit=16; private not for profit=104; pharmacy=55; PPMV=407; informal=14; labs = 85; wholesalers= 4; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =1

LAGOS

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	Retail total N=120 %	Not-for-profit facility N=3 %	For-profit facility N=33 %	Pharmacy N=16 %	Laboratory N=65 %	PPMV N=3 %	Informal N=0 %
Any malaria blood testing	100%	4%	40%	4%	52%	0%	0%
Microscopy	84%	4%	30%	0%	51%	0%	0%
RDT	16%	0%	11%	4%	1%	0%	0%
WHO pre-qualified RDT	9%	0%	5%	3%	1%	0%	0%
Premier Medical Corporation	6%	0%	4%	1%	1%	0%	0%
Advy Chemical	3%	0%	0%	2%	0%	0%	0%
Arkray Healthcare	0%	0%	0%	0%	0%	0%	0%
RDT manufacturer: Other	7%	0%	7%	0%	0%	0%	0%
RDT manufacturer: Don't know	0%	0%	0%	0%	0%	0%	0%

Lagos Footnote: Volume data were available for the following total number of diagnostic products=120; by outlet type: Private not for profit=3; private not for profit=33; pharmacy=16; PPMV=3; informal=0; labs = 65; wholesalers= 0; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =2

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Table 26. Market share of malaria blood tests sold or conducted in the previous week by outlet type, by stratum.

ABIA

	Retail total N=33 %	Not-for-profit facility N=11 %	For-profit facility N=12 %	Pharmacy N=6 %	Laboratory N=1 %	PPMV N=3 %	Informal N=0 %
Any malaria blood testing	100%	100%	100%	100%	100%	100%	0%
Microscopy	81%	97%	69%	23%	100%	0%	0%
RDT	19%	3%	31%	77%	0%	100%	0%
WHO pre-qualified RDT	17%	3%	16%	77%	0%	100%	0%
Premier Medical Corporation	9%	0%	5%	53%	0%	69%	0%
Advy Chemical	5%	0%	4%	24%	0%	31%	0%
Arkray Healthcare	3%	3%	7%	0%	0%	0%	0%
RDT manufacturer: Other	2%	0%	15%	0%	0%	0%	0%
RDT manufacturer: Don't know	0%	0%	0%	0%	0%	0%	0%

Abia Footnote: Volume data were available for the following total number of diagnostic products=34; by outlet type: Private not for profit=11; private not for profit=12; pharmacy=6; PPMV=3; informal=0; labs = 1; wholesalers= 1; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =2

KANO

	Retail total N=681 %	Not-for-profit facility N=16 %	For-profit facility N=104 %	Pharmacy N=55 %	Laboratory N=85 %	PPMV N=407 %	Informal N=14 %
Any malaria blood testing	100%	100%	100%	100%	100%	100%	100%
Microscopy	60%	31%	38%	7%	97%	0%	0%
RDT	40%	69%	62%	93%	3%	100%	100%
WHO pre-qualified RDT	38%	68%	62%	91%	3%	93%	100%
Premier Medical Corporation	27%	58%	42%	62%	3%	64%	85%
Advy Chemical	6%	0%	7%	5%	0%	17%	13%
Arkray Healthcare	4%	9%	14%	16%	0%	10%	3%
RDT manufacturer: Other	3%	1%	0%	10%	0%	9%	0%
RDT manufacturer: Don't know	0%	0%	0%	0%	0%	0%	0%

Kano Footnote: Volume data were available for the following total number of diagnostic products=685; by outlet type: Private not for profit=16; private not for profit=104; pharmacy=55; PPMV=407; informal=14; labs = 85; wholesalers= 4; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =1

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LAGOS

	Retail total N=120 %	Not-for-profit facility N=3 %	For-profit facility N=33 %	Pharmacy N=16 %	Laboratory N=65 %	PPMV N=3 %	Informal N=0 %
Any malaria blood testing	100%	100%	100%	100%	100%	100%	0%
Microscopy	84%	90%	74%	0%	98%	0%	0%
RDT	16%	10%	26%	100%	2%	100%	0%
WHO pre-qualified RDT	9%	10%	12%	86%	2%	100%	0%
Premier Medical Corporation	6%	10%	9%	26%	1%	23%	0%
Advy Chemical	3%	0%	0%	62%	0%	36%	0%
Arkray Healthcare	0%	0%	0%	0%	0%	0%	0%
RDT manufacturer: Other	7%	0%	17%	12%	0%	41%	0%
RDT manufacturer: Don't know	0%	0%	0%	0%	0%	0%	0%

Lagos Footnote: Volume data were available for the following total number of diagnostic products=120; by outlet type: Private not for profit=3; private not for profit=33; pharmacy=16; PPMV=3; informal=0; labs = 65; wholesalers= 0; The number of antimalarial products with volume data, from outlets that met screening criteria for a full interview but did not complete the interview =2

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4.3 Market share for Antimalarials by brand and manufacturer

Table 27. Market share of antimalarials sold in the previous week by outlet type, by stratum (brands with largest market share and all other)

	Abia N=7959 N [95% CI]	Kano N=9307 N [95% CI]	Lagos N=5262 % [95% CI]
AJANTA PHARMA;AFLOTIN 20/120	0%	2%	0%
ARCHY PHARMA NIGERIA;COLAMAR	1%	1%	1%
BLISS GVS PHARMA;LONART	8%	3%	12%
BLISS GVS PHARMA;P-ALAXIN	3%	1%	3%
CIRON DRUGS & PHARMA;LARIS	1%	0%	0%
CLAROID PHARMA;ROTEM PLUS	0%	0%	0%
DIVINE ESSENTIALS FORMULATIONS;ASTAB	0%	2%	0%
FRONT PHARMA PLC;CAMOSUNATE ADULT	2%	0%	5%
GLOBELA PHARMA;AQUAMAL QS	0%	0%	0%
GREENFIELD PHARMA (JIANGSU);LUTHERMIN	0%	3%	0%
JIANGSU RUINIAN QIANJIN PHARMA;CLARTEM	3%	0%	1%
JIANGSU RUINIAN QIANJIN PHARMA;MELOFAN	0%	2%	0%
KRISHAR PHARMA IND;KRISHAT	0%	3%	0%
LABORATE PHARMA;HAVAX FORTE SOFTGEL	4%	0%	1%
MAXHEAL LABORATORIES;MALANTER DS	7%	0%	1%
MEDBIOS LABORATORIES;ARTELUMEX FORTE	0%	2%	0%
MYLAN LABORATORIES;KOFENACT	0%	2%	0%
MZOR INDUSTRIES;LOKMAL	1%	0%	1%
NOVARTIS;COARTEM	0%	0%	1%
OLIVE HEALTHCARE;AMATEM FORTE	2%	0%	3%
OLIVE HEALTHCARE;AMATEM FORTE SOFTGEL	3%	2%	5%
OLIVE HEALTHCARE;IBASUNATE SOFTGEL	2%	0%	1%
PHAMATEX INDUSTRIES;LUMAPIL	0%	0%	0%
SAGAR VITACEUTICALS;HENAFENTRINE	2%	5%	0%

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	Abia N=7959 N [95% CI]	Kano N=9307 N [95% CI]	Lagos N=5262 % [95% CI]
SALUD CARE;MEROTHER	1%	1%	1%
SHALINA HEALTHCARE NIGERIA;SHAL ARTEM	1%	1%	4%
SHANDONG YIKANG PHARMA;NELMARTEM	1%	1%	6%
SJS LIFE SCIENCES;BALTENART	1%	2%	1%
STALLION LABORATORIES;ROBAMAL FORTE	0%	2%	0%
SURELIFE PHARMA INDUSTRIES;SURESIDAR	0%	2%	1%
SURMOUNT LABORATORIES;GENERIC AL	1%	1%	0%
SURMOUNT LABORATORIES;TOPSEA AL	3%	0%	1%
TIANJIN KINGYORK GROUP HUBEI TIANYAO;GENERIC ARTEMETHER	0%	2%	0%
TIANJIN KINGYORK GROUP HUBEI TIANYAO;NEMETHER	0%	3%	0%
VITABIOTICS;DR MEYERS MAXIQUINE	2%	0%	1%
All other manufacturer; brand	51%	56%	48%
All manufacturer; brand	100%	100%	100%

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5 RETAIL PRICE TO CUSTOMERS

5.1 Sales price of antimalarial tablet AETDs to customers

Table 28. Median retail price of adult equivalent treatment dose (AETD) for tablet formulation types in NGN

ABIA

	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
Any antimalarial	₦1,000 [800; 2000] (31)	₦1,100 [800; 2000] (33)	₦1,300 [900; 2000] (651)	₦1,200 [1200; 1500] (7)	₦1,200 [900; 1800] (5721)	₦900 [500; 1300] (52)	₦1,200 [900; 1800] (6495)	₦800 [600; 1600] (205)
Any ACT	₦1,000 [800; 2000] (28)	₦1,100 [800; 2000] (27)	₦1,333 [1000; 2000] (609)	₦1,200 [1200; 1500] (7)	₦1,200 [900; 1800] (5398)	₦900 [600; 1250] (47)	₦1,200 [900; 1800] (6116)	₦900 [600; 1600] (197)
Artemether lumefantrine	₦1,500 [800; 2000] (26)	₦1,100 [800; 1800] (24)	₦1,300 [950; 2200] (462)	₦1,200 [1200; 1500] (7)	₦1,200 [900; 1700] (4909)	₦900 [500; 1000] (41)	₦1,200 [900; 1800] (5469)	₦800 [600; 1800] (178)
Artesunate amodiaquine	₦750 [750; 750] (2)	₦600 [600; 600] (1)	₦900 [750; 1250] (28)	₦0 -	₦1,150 [800; 1500] (84)	₦1,250 [1250; 1250] (1)	₦1,100 [750; 1500] (116)	₦500 [500; 1200] (3)
Artemisinin piperaquine	₦0 -	₦0 -	₦3,024 [2419.2; 4032] (12)	₦0 -	₦4,032 [3729.6; 5040] (14)	₦3,226 [3225.6; 3225.6] (1)	₦4,032 [3024; 5040] (27)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦2,000 [700; 2000] (2)	₦1,500 [1200; 1800] (98)	₦0 -	₦1,500 [1200; 1800] (385)	₦1,100 [900; 1300] (4)	₦1,500 [1200; 1800] (489)	₦1,200 [1000; 1500] (16)
Arterolane piperaquine	₦0 -	₦0 -	₦1,200 [1000; 1500] (8)	₦0 -	₦4,500 [4500; 5500] (5)	₦0 -	₦4,500 [1200; 4500] (13)	₦0 -
Any other ACT	₦0 -	₦0 -	₦167 [166.7; 166.7] (1)	₦0 -	₦1,167 [1166.7; 1166.7] (1)	₦0 -	₦667 [166.7; 1166.7] (2)	₦0 -
Stocks nationally approved ACT	₦1,500 [800; 2400] (17)	₦900 [800; 1900] (20)	₦1,500 [1000; 2400] (366)	₦1,200 [1200; 1500] (7)	₦1,200 [900; 2000] (3571)	₦800 [233.3; 1000] (32)	₦1,200 [900; 2000] (4013)	₦800 [600; 1800] (152)
Stocks QA ACT (WHO PQ)	₦0 -	₦0 -	₦1,200 [800; 4800] (12)	₦0 -	₦1,000 [800; 1400] (79)	₦0 -	₦1,000 [800; 1500] (91)	₦0 -
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦0 -	₦0 -	₦2,400 [2400; 2400] (1)	₦0 -	₦2,400 [2400; 2400] (1)	₦0 -
ACT that is WHO PQ but not nationally approved	₦0 -	₦0 -	₦1,200 [800; 4800] (12)	₦0 -	₦900 [800; 1400] (78)	₦0 -	₦1,000 [800; 1500] (90)	₦0 -
ACT that is nationally approved but not WHO PQ	₦1,500 [800; 2400] (17)	₦900 [800; 1500] (19)	₦1,500 [1000; 2400] (361)	₦1,200 [1200; 1500] (7)	₦1,200 [900; 2000] (3519)	₦800 [233.3; 1000] (32)	₦1,200 [900; 2000] (3955)	₦900 [600; 1800] (149)
ACT not nationally approved or WHO PQ	₦1,000 [750; 1500] (11)	₦1,200 [1000; 2000] (8)	₦1,200 [900; 1600] (236)	₦0 -	₦1,200 [900; 1500] (1800)	₦1,200 [840; 1300] (15)	₦1,200 [900; 1500] (2070)	₦900 [600; 1500] (48)
Non-artemisinins	₦3,600 [500; 3600] (3)	₦2,549 [47.1; 24000] (6)	₦700 [500; 12000] (42)	₦0 -	₦600 [500; 10000] (323)	₦500 [500; 8000] (5)	₦600 [500; 10000] (379)	₦500 [300; 600] (8)

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	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
Oral quinine	₦0 -	₦3,360 [3360.1; 3360.1] (1)	₦2,310 [2310.1; 2602] (3)	₦0 -	₦2,520 [2100.1; 6300.2] (5)	₦0 -	₦2,520 [2100.1; 3360.1] (9)	₦0 -
Chloroquine	₦0 -	₦0 -	₦500 [500; 500] (5)	₦0 -	₦500 [300; 500] (10)	₦0 -	₦500 [400; 500] (15)	₦0 [0.2; 0.2] (1)
Sulfadoxine pyrimethamine	₦500 [500; 16000] (2)	₦24,000 [800; 24000] (2)	₦700 [500; 16000] (34)	₦0 -	₦600 [500; 10000] (266)	₦500 [500; 8000] (5)	₦650 [500; 10000] (309)	₦500 [300; 10000] (7)
Sulfadoxine pyrimethamine amodiaquine	₦3,600 [3600; 3600] (1)	₦35 [35.3; 2549] (2)	₦0 -	₦0 -	₦882 [600; 1200] (26)	₦0 -	₦882 [600; 1200] (29)	₦0 -
Other non-artemisinins	₦0 -	₦47 [47.1; 47.1] (1)	₦0 -	₦0 -	₦1 [0.6; 1.2] (16)	₦0 -	₦1 [0.6; 2.2] (17)	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Abia Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 11; N Antimalarial products audited but missing price information = 652

KANO

	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
Any antimalarial	₦1,100 [700; 2500] (35)	₦700 [500; 1500] (163)	₦1,500 [1000; 2900] (846)	₦400 [200; 600] (2)	₦700 [500; 1200] (3799)	₦700 [533.3; 1700] (94)	₦700 [600; 1500] (4939)	₦700 [500; 1600] (87)
Any ACT	₦1,200 [700; 2500] (28)	₦1,000 [600; 1500] (137)	₦1,500 [1000; 2700] (752)	₦600 [600; 600] (1)	₦700 [600; 1400] (3179)	₦700 [600; 1700] (81)	₦800 [600; 1600] (4178)	₦800 [500; 1600] (72)
Artemether lumefantrine	₦1,000 [700; 2000] (21)	₦800 [600; 1400] (114)	₦1,200 [850; 2900] (561)	₦600 [600; 600] (1)	₦700 [600; 1000] (2835)	₦700 [600; 800] (70)	₦700 [600; 1500] (3602)	₦700 [500; 2200] (59)
Artesunate amodiaquine	₦1,100 [1100; 1250] (3)	₦1,700 [1400; 2200] (8)	₦1,400 [1300; 1600] (68)	₦0 -	₦1,000 [800; 1300] (51)	₦0 -	₦1,400 [1200; 1500] (130)	₦1,300 [1300; 1300] (1)
Artemisinin piperaquine	₦3,024 [3024; 3024] (1)	₦3,629 [3628.8; 3628.8] (1)	₦6,854 [5443.2; 6854.4] (23)	₦0 -	₦3,226 [3024; 5846.4] (31)	₦7,056 [7056; 7056] (1)	₦5,443 [3225.6; 6048] (57)	₦0 -
Dihydroartemisinin piperaquine	₦2,500 [2500; 2500] (2)	₦2,000 [1700; 2000] (14)	₦2,000 [1500; 2000] (93)	₦0 -	₦1,500 [1050; 1800] (256)	₦1,400 [600; 1700] (10)	₦1,600 [1300; 2000] (375)	₦1,500 [1200; 1600] (12)
Arterolane piperaquine	₦0 -	₦0 -	₦4,300 [3500; 4600] (7)	₦0 -	₦5,000 [5000; 16000] (4)	₦0 -	₦4,300 [3500; 5000] (11)	₦0 -

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KANO

	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
Any other ACT	₦2,500 [2500; 2500] (1)	₦0 -	₦0 -	₦0 -	₦1,000 [1000; 1000] (2)	₦0 -	₦1,000 [1000; 2500] (3)	₦0 -
Stocks nationally approved ACT	₦1,000 [700; 2500] (24)	₦750 [600; 1387.7] (100)	₦1,600 [1000; 2900] (502)	₦600 [600; 600] (1)	₦700 [600; 1100] (2534)	₦700 [500; 1800] (53)	₦700 [600; 1600] (3214)	₦700 [500; 2200] (58)
Stocks QA ACT (WHO PQ)	₦1,000 [500; 1000] (3)	₦800 [400; 3500] (16)	₦3,700 [666.7; 5466.7] (82)	₦0 -	₦600 [533.3; 800] (346)	₦800 [600; 800] (14)	₦667 [600; 800] (461)	₦500 [500; 533.3] (4)
ACT that is both WHO PQ and nationally approved	₦500 [500; 500] (1)	₦800 [666.7; 1000] (7)	₦1,200 [800; 1200] (9)	₦0 -	₦667 [600; 800] (149)	₦800 [600; 800] (8)	₦667 [600; 800] (174)	₦500 [500; 800] (2)
ACT that is WHO PQ but not nationally approved	₦1,000 [1000; 1000] (2)	₦400 [350; 3500] (9)	₦4,000 [666.7; 5600] (73)	₦0 -	₦600 [533.3; 800] (197)	₦800 [600; 4000] (6)	₦600 [600; 933.3] (287)	₦517 [500; 533.3] (2)
ACT that is nationally approved but not WHO PQ	₦1,300 [700; 2500] (17)	₦900 [600; 1500] (82)	₦1,600 [1000; 2900] (455)	₦600 [600; 600] (1)	₦700 [600; 1500] (2078)	₦700 [550; 2500] (42)	₦800 [600; 2000] (2675)	₦700 [600; 2200] (48)
ACT not nationally approved or WHO PQ	₦1,500 [1200; 2500] (8)	₦1,000 [600; 1600] (39)	₦1,300 [1000; 2000] (215)	₦0 -	₦800 [600; 1500] (755)	₦700 [600; 700] (25)	₦1,000 [600; 1500] (1042)	₦1,200 [500; 1600] (20)
Non-artemisinins	₦1,000 [400; 3469.3] (7)	₦500 [350; 500] (26)	₦3,469 [400; 15000] (94)	₦200 [200; 200] (1)	₦300 [250; 400] (620)	₦300 [250; 2081.6] (13)	₦300 [250; 500] (761)	₦250 [250; 300] (15)
Oral quinine	₦3,469 [336; 3469.3] (2)	₦3,469 [1387.7; 4163.2] (4)	₦3,469 [2940.1; 3469.3] (14)	₦0 -	₦2,520 [2520.1; 3360.1] (20)	₦2,082 [2081.6; 2081.6] (1)	₦2,940 [2520.1; 3360.1] (41)	₦1,890 [1890.1; 1890.1] (2)
Chloroquine	₦300 [300; 300] (1)	₦0 -	₦500 [375; 1166.7] (7)	₦0 -	₦300 [180; 400] (79)	₦300 [300; 300] (1)	₦300 [210; 400] (88)	₦250 [250; 250] (3)
Sulfadoxine pyrimethamine	₦1,000 [400; 1000] (4)	₦500 [350; 500] (22)	₦12,000 [350; 15000] (71)	₦200 [200; 200] (1)	₦300 [250; 350] (506)	₦250 [150; 15000] (11)	₦300 [250; 400] (615)	₦250 [200; 250] (10)
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 -	₦882 [882.4; 7200] (2)	₦0 -	₦294 [294.1; 392.2] (15)	₦0 -	₦300 [294.1; 882.4] (17)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Kano Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 19; N Antimalarial products audited but missing price information = 652

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LAGOS

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any antimalarial	₦1,740 [700; 1740] (5)	₦1,800 [1000; 4800] (76)	₦1,800 [1100; 2800] (2372)	₦0 -	₦1,067 [800; 2000] (2310)	₦1,000 [700; 1500] (172)	₦1,500 [900; 2500] (4935)	₦2,000 [2000; 4400] (3)
Any ACT	₦1,740 [700; 1740] (5)	₦1,800 [1000; 3500] (60)	₦1,800 [1200; 2800] (2193)	₦0 -	₦1,200 [800; 2000] (2006)	₦1,000 [800; 1500] (145)	₦1,500 [1000; 2500] (4409)	₦2,000 [2000; 4400] (3)
Artemether lumefantrine	₦1,740 [550; 1740] (4)	₦1,500 [1000; 3500] (55)	₦1,867 [1066.7; 2800] (1599)	₦0 -	₦1,200 [800; 2000] (1851)	₦1,000 [800; 1500] (141)	₦1,400 [933.3; 2500] (3650)	₦2,000 [2000; 4400] (3)
Artesunate amodiaquine	₦2,500 [2500; 2500] (1)	₦1,000 [1000; 1000] (1)	₦1,250 [1050; 1500] (161)	₦0 -	₦1,250 [1000; 1400] (47)	₦0 -	₦1,250 [1000; 1500] (210)	₦0 -
Artemisinin piperaquine	₦0 -	₦0 -	₦4,939 [4032; 5443.2] (82)	₦0 -	₦4,435 [3628.8; 7660.8] (6)	₦0 -	₦4,939 [4032; 5443.2] (88)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦2,250 [2250; 2500] (4)	₦1,850 [1500; 2000] (320)	₦0 -	₦1,800 [1500; 2100] (102)	₦1,620 [1600; 2700] (4)	₦1,850 [1500; 2050] (430)	₦0 -
Arterolane piperaquine	₦0 -	₦0 -	₦4,900 [4600; 5500] (30)	₦0 -	₦0 -	₦0 -	₦4,900 [4600; 5500] (30)	₦0 -
Any other ACT	₦0 -	₦0 -	₦703 [703.3; 703.3] (1)	₦0 -	₦0 -	₦0 -	₦703 [703.3; 703.3] (1)	₦0 -
Stocks nationally approved ACT	₦1,740 [550; 2500] (4)	₦1,500 [1000; 2200] (47)	₦2,000 [1200; 3000] (1295)	₦0 -	₦1,067 [800; 2000] (1497)	₦1,000 [800; 1400] (94)	₦1,500 [800; 2500] (2937)	₦2,000 [2000; 2000] (1)
Stocks QA ACT (WHO PQ)	₦0 -	₦6,000 [4800; 14000] (4)	₦4,500 [2925; 6000] (110)	₦0 -	₦700 [700; 800] (23)	₦700 [700; 800] (6)	₦4,000 [1866.7; 5950] (143)	₦4,400 [4400; 4400] (1)
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦2,513 [2400; 2850] (7)	₦0 -	₦667 [666.7; 666.7] (2)	₦1,000 [1000; 1200] (2)	₦2,513 [1500; 2850] (11)	₦0 -
ACT that is WHO PQ but not nationally approved	₦0 -	₦6,000 [4800; 14000] (4)	₦4,800 [3500; 6200] (103)	₦0 -	₦700 [700; 800] (21)	₦700 [700; 800] (4)	₦4,500 [2000; 6000] (132)	₦4,400 [4400; 4400] (1)
ACT that is nationally approved but not WHO PQ	₦1,740 [550; 2500] (4)	₦1,500 [1000; 2200] (42)	₦2,000 [1300; 3000] (1229)	₦0 -	₦1,200 [800; 2200] (1352)	₦1,067 [900; 1400] (77)	₦1,500 [1000; 2500] (2704)	₦2,000 [2000; 2000] (1)
ACT not nationally approved or WHO PQ	₦1,740 [1740; 1740] (1)	₦1,500 [1500; 2000] (14)	₦1,500 [1100; 2000] (854)	₦0 -	₦1,200 [900; 1800] (631)	₦900 [800; 1600] (62)	₦1,300 [1000; 1950] (1562)	₦700 [700; 700] (1)
Non-artemisinins	₦0 -	₦6,300 [500; 20000] (16)	₦600 [480; 13750] (179)	₦0 -	₦500 [400; 700] (304)	₦600 [500; 4000] (27)	₦500 [400; 4000] (526)	₦0 -
Oral quinine	₦0	₦6,300	₦2,100	₦0	₦4,200	₦0	₦2,520	₦0

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LAGOS

	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
	-	[6300.2; 6300.2] (1)	[2081.6; 2940.1] (8)	-	[4200.2; 4200.2] (1)	-	[2081.6; 4200.2] (10)	-
Chloroquine	₦0 -	₦700 [700; 700] (1)	₦500 [450; 600] (33)	₦0 -	₦550 [500; 700] (69)	₦600 [600; 600] (6)	₦500 [450; 650] (109)	₦0 -
Sulfadoxine pyrimethamine	₦0 -	₦14,000 [400; 30000] (14)	₦750 [500; 16000] (135)	₦0 -	₦500 [400; 700] (217)	₦3,000 [400; 6000] (18)	₦500 [400; 10000] (384)	₦0 -
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 -	₦10,800 [9600; 12000] (2)	₦0 -	₦1,177 [882.4; 1470.6] (17)	₦600 [600; 600] (3)	₦882 [600; 1372.5] (22)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦10,900 [10900; 10900] (1)	₦0 -	₦0 -	₦0 -	₦10,900 [10900; 10900] (1)	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Lagos Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 34; N Antimalarial products audited but missing price information = 652

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Table 29. Median retail price of adult equivalent treatment dose (AETD) for tablet formulation types in USD

ABIA

	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
Any antimalarial	$0.90 [0.6; 1.6] (31)	$0.80 [0.4; 1.3] (33)	$0.80 [0.6; 1.3] (651)	$0.80 [0.8; 0.9] (7)	$0.80 [0.5; 1.1] (5721)	$0.60 [0.5; 0.9] (52)	$0.80 [0.5; 1.1] (6495)	$0.60 [0.4; 0.9] (205)
Any ACT	$0.80 [0.6; 1.3] (28)	$0.80 [0.4; 1.3] (27)	$0.80 [0.6; 1.3] (609)	$0.80 [0.8; 0.9] (7)	$0.80 [0.5; 1] (5398)	$0.60 [0.5; 0.9] (47)	$0.80 [0.5; 1.1] (6116)	$0.60 [0.4; 1] (197)
Artemether lumefantrine	$0.80 [0.6; 1.3] (26)	$0.90 [0.5; 1.3] (24)	$0.80 [0.6; 1.4] (462)	$0.80 [0.8; 0.9] (7)	$0.70 [0.5; 1] (4909)	$0.60 [0.5; 0.9] (41)	$0.80 [0.5; 1] (5469)	$0.60 [0.4; 1] (178)
Artesunate amodiaquine	$0.50 [0.5; 0.5] (2)	$0.40 [0.4; 0.4] (1)	$0.60 [0.5; 1] (28)	$0.00 -	$0.70 [0.5; 1] (84)	$0.80 [0.8; 0.8] (1)	$0.70 [0.5; 1] (116)	$0.30 [0.3; 0.8] (3)
Artemisinin piperaquine	$0.00 -	$0.00 -	$1.50 [1.5; 2.9] (12)	$0.00 -	$2.50 [2.4; 3.2] (14)	$2.00 [2; 2] (1)	$2.00 [1.5; 2.9] (27)	$0.00 -
Dihydroartemisinin piperaquine	$0.00 -	$0.40 [0.4; 1.3] (2)	$0.90 [0.6; 1.1] (98)	$0.00 -	$0.90 [0.8; 1.2] (385)	$0.70 [0.5; 0.9] (4)	$0.90 [0.8; 1.1] (489)	$0.80 [0.6; 1.1] (16)
Arterolane piperaquine	$0.00 -	$0.00 -	$0.90 [0.6; 1.3] (8)	$0.00 -	$2.80 [2.5; 2.9] (5)	$0.00 -	$0.90 [0.8; 2.8] (13)	$0.00 -
Any other ACT	$0.00 -	$0.00 -	$0.10 [0.1; 0.1] (1)	$0.00 -	$0.70 [0.7; 0.7] (1)	$0.00 -	$0.40 [0.1; 0.7] (2)	$0.00 -
Stocks nationally approved ACT	$0.80 [0.6; 1.6] (17)	$0.90 [0.5; 1.5] (20)	$0.90 [0.6; 1.5] (366)	$0.80 [0.8; 0.9] (7)	$0.80 [0.5; 1.1] (3571)	$0.60 [0.5; 0.9] (32)	$0.80 [0.5; 1.3] (4013)	$0.60 [0.4; 1] (152)
Stocks QA ACT (WHO PQ)	$0.00 -	$0.00 -	$0.80 [0.5; 0.9] (12)	$0.00 -	$0.50 [0.5; 0.8] (79)	$0.00 -	$0.50 [0.5; 0.8] (91)	$0.00 -
ACT that is both WHO PQ and nationally approved	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$1.50 [1.5; 1.5] (1)	$0.00 -	$1.50 [1.5; 1.5] (1)	$0.00 -
ACT that is WHO PQ but not nationally approved	$0.00 -	$0.00 -	$0.80 [0.5; 0.9] (12)	$0.00 -	$0.50 [0.4; 0.8] (78)	$0.00 -	$0.50 [0.5; 0.8] (90)	$0.00 -
ACT that is nationally approved but not WHO PQ	$0.80 [0.6; 1.6] (17)	$0.80 [0.5; 1.3] (19)	$0.90 [0.6; 1.5] (361)	$0.80 [0.8; 0.9] (7)	$0.80 [0.5; 1.2] (3519)	$0.60 [0.5; 0.9] (32)	$0.80 [0.6; 1.3] (3955)	$0.60 [0.4; 1.1] (149)
ACT not nationally approved or WHO PQ	$0.60 [0.6; 1.3] (11)	$0.80 [0.4; 1.3] (8)	$0.80 [0.5; 1] (236)	$0.00 -	$0.70 [0.5; 0.9] (1800)	$0.80 [0.5; 0.8] (15)	$0.70 [0.5; 0.9] (2070)	$0.60 [0.4; 0.9] (48)
Non-artemisinins	$2.30 [2.3; 10.1] (3)	$1.60 [0; 2.1] (6)	$0.40 [0.3; 6.3] (42)	$0.00 -	$0.40 [0.3; 5.1] (323)	$0.30 [0.3; 5.1] (5)	$0.40 [0.3; 5.1] (379)	$0.30 [0.2; 0.4] (8)
Oral quinine	$0.00 -	$2.10 [2.1; 2.1] (1)	$1.50 [1.3; 1.6] (3)	$0.00 -	$1.60 [1.3; 2.1] (5)	$0.00 -	$1.60 [1.3; 2.1] (9)	$0.00 -
Chloroquine	$0.00 -	$0.00 -	$0.30 [0.3; 2.8] (5)	$0.00 -	$0.30 [0.2; 0.3] (10)	$0.00 -	$0.30 [0.3; 0.3] (15)	$0.00 [0; 0] (1)
Sulfadoxine pyrimethamine	$10.10 [0.3; 10.1] (2)	$0.50 [0.5; 15.2] (2)	$0.40 [0.3; 10.1] (34)	$0.00 -	$0.40 [0.3; 6.3] (266)	$0.30 [0.3; 5.1] (5)	$0.40 [0.3; 6.3] (309)	$0.30 [0.3; 6.3] (7)
Sulfadoxine pyrimethamine amodiaquine	$2.30 [2.3; 2.3] (1)	$1.60 [0; 1.6] (2)	$0.00 -	$0.00 -	$0.70 [0.4; 0.8] (26)	$0.00 -	$0.70 [0.4; 0.8] (29)	$0.00 -
Other non-artemisinins	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

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ABIA

	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
	-	[0; 0] (1)	-	-	[0; 0] (16)	-	[0; 0] (17)	-
Oral artemisinin monotherapy	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	-	-	-	-	-	-	-	-

Abia Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 11; N Antimalarial products audited but missing price information = 652

KANO

	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
Any antimalarial	$0.80 [0.4; 1.6] (35)	$0.90 [0.5; 1.6] (163)	$1.00 [0.5; 1.8] (846)	$0.30 [0.1; 0.4] (2)	$0.40 [0.4; 1] (3800)	$0.40 [0.3; 1.1] (94)	$0.50 [0.4; 1.3] (4940)	$0.40 [0.3; 1.4] (87)
Any ACT	$1.30 [0.5; 1.8] (28)	$0.90 [0.5; 1.3] (137)	$1.00 [0.6; 1.8] (752)	$0.40 [0.4; 0.4] (1)	$0.50 [0.4; 1.2] (3180)	$0.40 [0.3; 1.1] (81)	$0.60 [0.4; 1.4] (4179)	$0.50 [0.4; 1.4] (72)
Artemether lumefantrine	$1.50 [0.4; 1.9] (21)	$0.80 [0.5; 1.3] (114)	$0.90 [0.5; 1.8] (561)	$0.40 [0.4; 0.4] (1)	$0.40 [0.4; 0.9] (2836)	$0.40 [0.3; 0.6] (70)	$0.50 [0.4; 1.4] (3603)	$0.40 [0.3; 1.5] (59)
Artesunate amodiaquine	$0.80 [0.8; 1.1] (3)	$1.10 [1.1; 1.3] (8)	$0.90 [0.8; 0.9] (68)	$0.00 -	$0.80 [0.6; 0.9] (51)	$0.00 -	$0.90 [0.7; 1] (130)	$0.80 [0.8; 0.8] (1)
Artemisinin piperaquine	$1.90 [1.9; 1.9] (1)	$2.30 [2.3; 2.3] (1)	$3.40 [2.4; 3.8] (23)	$0.00 -	$2.50 [2; 3.8] (31)	$4.50 [4.5; 4.5] (1)	$3.10 [2.2; 3.8] (57)	$0.00 -
Dihydroartemisinin piperaquine	$1.30 [1.3; 1.3] (2)	$1.20 [1; 1.6] (14)	$1.10 [0.9; 1.3] (93)	$0.00 -	$1.10 [0.9; 1.3] (256)	$1.10 [0.9; 1.2] (10)	$1.10 [0.9; 1.3] (375)	$1.00 [0.9; 1.1] (12)
Arterolane piperaquine	$0.00 -	$0.00 -	$2.20 [0.9; 2.7] (7)	$0.00 -	$3.20 [2.2; 3.2] (4)	$0.00 -	$2.20 [0.9; 2.9] (11)	$0.00 -
Any other ACT	$1.60 [1.6; 1.6] (1)	$0.00 -	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (2)	$0.00 -	$0.40 [0.4; 1.6] (3)	$0.00 -
Stocks nationally approved ACT	$0.50 [0.2; 1.5] (24)	$0.90 [0.5; 1.6] (100)	$0.90 [0.5; 1.8] (502)	$0.40 [0.4; 0.4] (1)	$0.40 [0.4; 1] (2534)	$0.40 [0.3; 0.8] (53)	$0.50 [0.4; 1.4] (3214)	$0.50 [0.3; 1.5] (58)
Stocks QA ACT (WHO PQ)	$1.90 [0.3; 1.9] (3)	$0.50 [0.3; 2.5] (16)	$2.30 [0.6; 3.2] (82)	$0.00 -	$0.40 [0.3; 0.6] (345)	$0.30 [0.3; 0.5] (14)	$0.50 [0.4; 1.3] (460)	$0.30 [0.3; 0.3] (4)
ACT that is both WHO PQ and nationally approved	$0.30 [0.3; 0.3] (1)	$0.30 [0.3; 0.3] (7)	$0.40 [0.3; 0.6] (9)	$0.00 -	$0.40 [0.3; 0.5] (148)	$0.30 [0.3; 0.5] (8)	$0.40 [0.3; 0.5] (173)	$0.50 [0.3; 0.5] (2)
ACT that is WHO PQ but not nationally approved	$1.90 [1.9; 1.9] (2)	$2.50 [0.8; 5.1] (9)	$2.70 [1.8; 3.5] (73)	$0.00 -	$0.40 [0.4; 0.8] (197)	$0.40 [0.3; 0.5] (6)	$0.60 [0.4; 2.5] (287)	$0.30 [0.3; 0.3] (2)
ACT that is nationally approved but not WHO PQ	$1.10 [0.4; 1.9] (17)	$0.90 [0.6; 1.3] (82)	$1.00 [0.5; 1.8] (455)	$0.40 [0.4; 0.4] (1)	$0.50 [0.4; 1.5] (2079)	$0.40 [0.3; 1.2] (42)	$0.50 [0.4; 1.6] (2676)	$0.80 [0.3; 1.5] (48)
ACT not nationally approved or WHO PQ	$1.30 [0.8; 1.8] (8)	$0.90 [0.6; 1.3] (39)	$0.90 [0.6; 1.3] (215)	$0.00 -	$0.60 [0.4; 1.1] (756)	$0.60 [0.3; 1.3] (25)	$0.70 [0.4; 1.1] (1043)	$0.60 [0.4; 1.1] (20)
Non-artemisinins	$0.20 [0.2; 0.2] (7)	$0.40 [0.2; 2.7] (26)	$0.30 [0.2; 7.6] (94)	$0.10 [0.1; 0.1] (1)	$0.20 [0.2; 0.2] (620)	$0.20 [0.1; 1.9] (13)	$0.20 [0.2; 0.3] (761)	$0.20 [0.1; 1.2] (15)
Oral quinine	$0.20	$2.60	$1.30	$0.00	$1.30	$1.30	$1.30	$1.90

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KANO

	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
	[0.2; 2.2] (2)	[2.6; 2.7] (4)	[1.1; 1.6] (14)	-	[1.1; 2] (20)	[1.3; 1.3] (1)	[1.1; 2.2] (41)	[1.9; 1.9] (2)
Chloroquine	$0.20 [0.2; 0.2] (1)	$0.00 -	$0.40 [0.3; 0.4] (7)	$0.00 -	$0.20 [0.2; 0.3] (79)	$0.20 [0.2; 0.2] (1)	$0.20 [0.2; 0.3] (88)	$1.10 [0.2; 1.1] (3)
Sulfadoxine pyrimethamine	$0.20 [0.2; 0.2] (4)	$0.30 [0.2; 6.3] (22)	$0.30 [0.2; 7.6] (71)	$0.10 [0.1; 0.1] (1)	$0.20 [0.2; 0.2] (506)	$0.20 [0.1; 1.9] (11)	$0.20 [0.2; 0.3] (615)	$0.20 [0.1; 0.2] (10)
Sulfadoxine pyrimethamine amodiaquine	$0.00 -	$0.00 -	$4.50 [0.6; 4.5] (2)	$0.00 -	$0.20 [0.2; 0.4] (15)	$0.00 -	$0.20 [0.2; 0.4] (17)	$0.00 -
Other non-artemisinins	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -
Oral artemisinin monotherapy	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -

Kano Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 19; N Antimalarial products audited but missing price information = 652

LAGOS

	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
Any antimalarial	$0.40 [0.4; 1.1] (5)	$0.90 [0.6; 1.9] (76)	$1.10 [0.7; 1.8] (2372)	$0.00 -	$0.80 [0.5; 1.3] (2310)	$0.90 [0.5; 1.1] (172)	$0.90 [0.6; 1.6] (4935)	$0.40 [0.4; 1.3] (3)
Any ACT	$0.40 [0.4; 1.1] (5)	$0.90 [0.6; 1.6] (60)	$1.10 [0.8; 1.7] (2193)	$0.00 -	$0.80 [0.6; 1.3] (2006)	$0.90 [0.6; 1.3] (145)	$0.90 [0.6; 1.6] (4409)	$0.40 [0.4; 1.3] (3)
Artemether lumefantrine	$0.40 [0.4; 0.4] (4)	$0.90 [0.6; 1.4] (55)	$1.00 [0.6; 1.8] (1599)	$0.00 -	$0.80 [0.6; 1.3] (1851)	$0.90 [0.5; 1.3] (141)	$0.90 [0.6; 1.6] (3650)	$0.40 [0.4; 1.3] (3)
Artesunate amodiaquine	$1.60 [1.6; 1.6] (1)	$0.60 [0.6; 0.6] (1)	$0.90 [0.8; 1] (161)	$0.00 -	$0.80 [0.7; 0.9] (47)	$0.00 -	$0.90 [0.8; 1] (210)	$0.00 -
Artemisinin piperaquine	$0.00 -	$0.00 -	$3.10 [2.7; 3.4] (82)	$0.00 -	$3.20 [2.8; 3.2] (6)	$0.00 -	$3.10 [2.7; 3.4] (88)	$0.00 -
Dihydroartemisinin piperaquine	$0.00 -	$1.60 [1.6; 1.6] (4)	$1.20 [0.9; 1.3] (320)	$0.00 -	$1.10 [0.9; 1.3] (102)	$1.00 [0.6; 1] (4)	$1.20 [0.9; 1.3] (430)	$0.00 -
Arterolane piperaquine	$0.00 -	$0.00 -	$3.20 [2.9; 3.3] (30)	$0.00 -	$0.00 -	$0.00 -	$3.20 [2.9; 3.3] (30)	$0.00 -
Any other ACT	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.00 -	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.00 -
Stocks nationally approved ACT	$0.40 [0.4; 0.4] (4)	$0.90 [0.6; 1.6] (47)	$1.30 [0.7; 1.9] (1295)	$0.00 -	$0.80 [0.5; 1.5] (1497)	$0.80 [0.5; 1.1] (94)	$0.90 [0.6; 1.6] (2937)	$1.30 [1.3; 1.3] (1)
Stocks QA ACT (WHO PQ)	$0.00 -	$2.50 [2.5; 3.8] (4)	$3.00 [2.3; 3.8] (110)	$0.00 -	$0.80 [0.5; 1.3] (23)	$0.60 [0.6; 0.8] (6)	$2.50 [1.1; 3.5] (143)	$2.80 [2.8; 2.8] (1)
ACT that is both WHO PQ and nationally approved	$0.00 -	$0.00 -	$1.60 [1.6; 1.8] (7)	$0.00 -	$0.80 [0.8; 0.8] (2)	$0.80 [0.6; 0.8] (2)	$0.80 [0.8; 1.6] (11)	$0.00 -

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LAGOS

	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
ACT that is WHO PQ but not nationally approved	$0.00 -	$2.50 [2.5; 3.8] (4)	$3.20 [2.4; 3.8] (103)	$0.00 -	$0.80 [0.5; 1.3] (21)	$0.50 [0.5; 1.6] (4)	$2.70 [1.3; 3.5] (132)	$2.80 [2.8; 2.8] (1)
ACT that is nationally approved but not WHO PQ	$0.40 [0.4; 0.4] (4)	$0.90 [0.6; 1.6] (42)	$1.30 [0.8; 1.9] (1229)	$0.00 -	$0.90 [0.6; 1.5] (1352)	$0.90 [0.6; 1.3] (77)	$1.00 [0.6; 1.6] (2704)	$1.30 [1.3; 1.3] (1)
ACT not nationally approved or WHO PQ	$1.10 [1.1; 1.1] (1)	$0.90 [0.6; 1.6] (14)	$0.90 [0.7; 1.3] (854)	$0.00 -	$0.80 [0.6; 1] (631)	$0.90 [0.5; 1] (62)	$0.80 [0.6; 1.1] (1562)	$0.40 [0.4; 0.4] (1)
Non-artemisinins	$0.00 -	$0.50 [0.3; 8.8] (16)	$0.40 [0.3; 8.8] (179)	$0.00 -	$0.40 [0.3; 0.6] (304)	$0.40 [0.3; 0.7] (27)	$0.40 [0.3; 6.3] (526)	$0.00 -
Oral quinine	$0.00 -	$4.00 [4; 4] (1)	$1.60 [1.3; 1.9] (8)	$0.00 -	$2.70 [2.7; 2.7] (1)	$0.00 -	$1.60 [1.3; 2.7] (10)	$0.00 -
Chloroquine	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.30 [0.3; 0.4] (33)	$0.00 -	$0.40 [0.3; 0.4] (69)	$0.40 [0.4; 0.5] (6)	$0.40 [0.3; 0.4] (109)	$0.00 -
Sulfadoxine pyrimethamine	$0.00 -	$6.30 [0.3; 12.6] (14)	$0.60 [0.3; 8.8] (135)	$0.00 -	$0.30 [0.3; 6.3] (217)	$0.30 [0.3; 3.8] (18)	$0.40 [0.3; 7.6] (384)	$0.00 -
Sulfadoxine pyrimethamine amodiaquine	$0.00 -	$0.00 -	$6.80 [6.1; 7.6] (2)	$0.00 -	$0.90 [0.6; 0.9] (17)	$0.70 [0.7; 1] (3)	$0.90 [0.7; 1.1] (22)	$0.00 -
Other non-artemisinins	$0.00 -	$0.00 -	$6.90 [6.9; 6.9] (1)	$0.00 -	$0.00 -	$0.00 -	$6.90 [6.9; 6.9] (1)	$0.00 -
Oral artemisinin monotherapy	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -

Lagos Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 34; N Antimalarial products audited but missing price information = 652

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Table 30. Median retail price of adult equivalent treatment dose (AETD) for tablet formulation types in NGN, disaggregated by urban and rural areas

ABIA	Rural								Urban							
Type of antimalarial (tablets)	Not-for-profit facility Median Naira [IQR] (N)	For-profit facility Median Naira [IQR] (N)	Pharmacy Median Naira [IQR] (N)	Laboratory Median Naira [IQR] (N)	PPMV Median Naira [IQR] (N)	Informal Median Naira [IQR] (N)	Retail total Median Naira [IQR] (N)	Whole-sale Median Naira [IQR] (N)	Not-for-profit facility Median Naira [IQR] (N)	For-profit facility Median Naira [IQR] (N)	Pharmacy Median Naira [IQR] (N)	Laboratory Median Naira [IQR] (N)	PPMV Median Naira [IQR] (N)	Informal Median Naira [IQR] (N)	Retail total Median Naira [IQR] (N)	Whole-sale Median Naira [IQR] (N)
Any antimalarial	₦1,500 [1000; 1500] (31)	₦800 [700; 24000] (33)	₦1,200 [850; 2000] (651)	₦0 -	₦1,200 [900; 1733.3] (5721)	₦1,000 [233.3; 1500] (52)	₦1,200 [900; 1800] (6495)	₦975 [600; 1800] (205)	₦1,000 [800; 2000] (31)	₦1,200 [800; 2000] (33)	₦1,380 [900; 2000] (651)	₦1,200 [1200; 1500] (7)	₦1,200 [800; 1800] (5721)	₦900 [800; 900] (52)	₦1,200 [800; 1800] (6495)	₦800 [600; 1600] (205)
Any ACT	₦1,500 [1000; 1500] (28)	₦800 [700; 800] (27)	₦1,200 [900; 2000] (609)	₦0 -	₦1,200 [1000; 1800] (5398)	₦1,000 [233.3; 1500] (47)	₦1,200 [1000; 1800] (6116)	₦1,000 [600; 1800] (197)	₦1,000 [800; 2000] (28)	₦1,500 [900; 2000] (27)	₦1,400 [1000; 2000] (609)	₦1,200 [1200; 1500] (7)	₦1,200 [900; 1800] (5398)	₦900 [800; 900] (47)	₦1,200 [900; 1800] (6116)	₦800 [600; 1600] (197)
Artemether lumefantrine	₦1,500 [1000; 1500] (26)	₦800 [700; 800] (24)	₦1,200 [900; 2500] (462)	₦0 -	₦1,200 [1000; 1800] (4909)	₦1,000 [233.3; 1300] (41)	₦1,200 [950; 1800] (5469)	₦975 [600; 1650] (178)	₦1,500 [800; 2000] (26)	₦1,200 [900; 2000] (24)	₦1,300 [1000; 2200] (462)	₦1,200 [1200; 1500] (7)	₦1,000 [800; 1600] (4909)	₦800 [700; 900] (41)	₦1,200 [850; 1800] (5469)	₦800 [600; 1800] (178)
Artesunate amodiaquine	₦0 -	₦0 -	₦750 [750; 800] (28)	₦0 -	₦1,000 [1000; 1250] (84)	₦1,250 [1250; 1250] (1)	₦1,000 [800; 1250] (116)	₦0 -	₦750 [750; 750] (2)	₦600 [600; 600] (1)	₦1,125 [750; 1500] (28)	₦0 -	₦1,200 [800; 1500] (84)	₦0 -	₦1,100 [750; 1500] (116)	₦500 [500; 1200] (3)
Artemisinin piperaquine	₦0 -	₦0 -	₦0 -	₦0 -	₦4,032 [4032; 5040] (14)	₦3,226 [3225.6; 3225.6] (1)	₦4,032 [4032; 5040] (27)	₦0 -	₦0 -	₦0 -	₦3,024 [2419.2; 4032] (12)	₦0 -	₦4,032 [3024; 5040] (14)	₦0 -	₦3,931 [2419.2; 5040] (27)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦0 -	₦1,800 [1200; 2000] (98)	₦0 -	₦1,500 [1200; 1700] (385)	₦1,170 [840; 1500] (4)	₦1,500 [1200; 1700] (489)	₦2,250 [2250; 2250] (16)	₦0 -	₦2,000 [700; 2000] (2)	₦1,500 [1200; 1750] (98)	₦0 -	₦1,500 [1260; 2000] (385)	₦1,100 [900; 1300] (4)	₦1,500 [1200; 1900] (489)	₦1,000 [1000; 1500] (16)
Arterolane piperaquine	₦0 -	₦0 -	₦1,000 [1000; 1000] (8)	₦0 -	₦0 -	₦0 -	₦1,000 [1000; 1000] (13)	₦0 -	₦0 -	₦0 -	₦1,200 [1200; 1500] (8)	₦0 -	₦4,500 [4500; 5500] (5)	₦0 -	₦4,500 [1200; 4650] (13)	₦0 -
Any other ACT	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦167 [166.7; 166.7] (1)	₦0 -	₦1,167 [1166.7; 1166.7] (1)	₦0 -	₦667 [166.7; 1166.7] (2)	₦0 -
Nationally approved ACT	₦1,500 [1500; 1500] (17)	₦800 [700; 800] (20)	₦1,300 [1000; 2500] (366)	₦0 -	₦1,200 [1000; 1800] (3571)	₦933 [200; 1500] (32)	₦1,200 [933.3; 1800] (4013)	₦950 [600; 2000] (152)	₦1,500 [800; 2400] (17)	₦1,500 [850; 2000] (20)	₦1,500 [1000; 2400] (366)	₦1,200 [1200; 1500] (7)	₦1,200 [900; 2000] (3571)	₦800 [700; 900] (32)	₦1,200 [900; 2000] (4013)	₦800 [600; 1600] (152)
Stocks QA ACT (WHO PQ)	₦0 -	₦0 -	₦800 [800; 800] (12)	₦0 -	₦1,000 [800; 1500] (79)	₦0 -	₦1,000 [800; 1500] (91)	₦0 -	₦0 -	₦0 -	₦1,500 [1000; 4800] (12)	₦0 -	₦900 [800; 1200] (79)	₦0 -	₦1,000 [800; 1300] (91)	₦0 -
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦2,400 [2400; 2400] (1)	₦0 -	₦2,400 [2400; 2400] (1)	₦0 -
ACT that is WHO PQ but not nationally approved	₦0 -	₦0 -	₦800 [800; 800] (12)	₦0 -	₦1,000 [800; 1500] (78)	₦0 -	₦1,000 [800; 1500] (90)	₦0 -	₦0 -	₦0 -	₦1,500 [1000; 4800] (12)	₦0 -	₦900 [800; 1200] (78)	₦0 -	₦1,000 [800; 1300] (90)	₦0 -
ACT that is nationally approved but not WHO PQ	₦1,500 [1500; 1500] (17)	₦800 [700; 800] (19)	₦1,300 [1000; 2500] (361)	₦0 -	₦1,200 [1000; 1900] (3519)	₦933 [200; 1500] (32)	₦1,200 [1000; 1900] (3955)	₦975 [600; 2000] (149)	₦1,500 [800; 2400] (17)	₦1,500 [850; 2000] (19)	₦1,500 [1000; 2400] (361)	₦1,200 [1200; 1500] (7)	₦1,200 [900; 2000] (3519)	₦800 [700; 900] (32)	₦1,200 [900; 2000] (3955)	₦900 [600; 1800] (149)
ACT not nationally approved or WHO PQ	₦1,500 [1000; 1500] (11)	₦0 -	₦1,200 [850; 2000] (236)	₦0 -	₦1,200 [1000; 1600] (1800)	₦1,200 [840; 1300] (15)	₦1,200 [1000; 1600] (2070)	₦1,000 [130; 1500] (48)	₦800 [750; 1500] (11)	₦1,200 [1000; 2000] (8)	₦1,200 [900; 1600] (236)	₦0 -	₦1,000 [850; 1500] (1800)	₦1,100 [850; 1650] (15)	₦1,000 [850; 1500] (2070)	₦800 [600; 1200] (48)
Non-artemisinins	₦0 -	₦24,000 [24000; 24000] (6)	₦350 [350; 350] (42)	₦0 -	₦600 [500; 1000] (323)	₦500 [500; 8000] (5)	₦600 [500; 1176.5] (379)	₦0 [0.2; 0.2] (8)	₦3,600 [500; 3600] (3)	₦800 [47.1; 800] (6)	₦700 [500; 12000] (42)	₦0 -	₦600 [500; 10000] (323)	₦0 -	₦600 [500; 10000] (379)	₦500 [300; 10000] (8)
Oral quinine	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦3,360	₦2,310	₦0	₦2,520	₦0	₦2,520	₦0

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ABIA

Type of antimalarial (tablets)	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
	-	-	-	-	-	-	-	-	-	[3360.1; 3360.1] (1)	[2310.1; 2602] (3)	-	[2100.1; 6300.2] (5)	-	[2100.1; 3360.1] (9)	-
Chloroquine	₦0	₦0	₦0	₦0	₦500	₦0	₦500	₦0	₦0	₦0	₦500	₦0	₦500	₦0	₦500	₦0
	-	-	-	-	[36; 500] (10)	-	[36; 500] (15)	[0.2; 0.2] (1)	-	-	[500; 500] (5)	-	[400; 500] (10)	-	[400; 500] (15)	-
Sulfadoxine pyrimethamine	₦0	₦24,000	₦350	₦0	₦600	₦500	₦600	₦0	₦500	₦800	₦700	₦0	₦600	₦0	₦700	₦500
	-	[24000; 24000] (2)	[350; 350] (34)	-	[500; 1000] (266)	[500; 8000] (5)	[500; 1000] (309)	-	[500; 16000] (2)	[800; 800] (2)	[500; 16000] (34)	-	[500; 10000] (266)	-	[500; 10000] (309)	[300; 10000] (7)
Sulfadoxine pyrimethamine amodiaquine	₦0	₦0	₦0	₦0	₦1,177	₦0	₦1,177	₦0	₦3,600	₦35	₦0	₦0	₦600	₦0	₦600	₦0
	-	-	-	-	[882.4; 1500] (26)	-	[882.4; 1500] (29)	-	[3600; 3600] (1)	[35.3; 2549] (2)	-	-	[120; 1176.5] (26)	-	[120; 1200] (29)	-
Other non-artemisinins	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦47	₦0	₦0	₦1	₦0	₦1	₦0
	-	-	-	-	-	-	-	-	-	[47.1; 47.1] (1)	-	-	[0.6; 1.2] (16)	-	[0.6; 2.2] (17)	-
Oral artemisinin monotherapy	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Abia Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 11; N Antimalarial products audited but missing price information = 652

KANO

Type of antimalarial (tablets)	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
Any antimalarial	₦850	₦600	₦1,500	₦0	₦600	₦700	₦700	₦700	₦1,500	₦1,000	₦1,800	₦400	₦700	₦700	₦800	₦600
	[700; 1000] (35)	[500; 600] (163)	[1000; 2500] (846)	-	[500; 1000] (3799)	[550; 1700] (94)	[550; 1500] (4939)	[400; 1890.1] (87)	[700; 2800] (35)	[700; 1700] (163)	[900; 3000] (846)	[200; 600] (2)	[600; 1500] (3799)	[500; 1800] (94)	[600; 2000] (4939)	[500; 1500] (87)
Any ACT	₦850	₦600	₦1,400	₦0	₦700	₦700	₦700	₦800	₦2,000	₦1,000	₦1,900	₦600	₦800	₦700	₦1,000	₦700
	[700; 1000] (28)	[600; 700] (137)	[1000; 2500] (752)	-	[600; 1100] (3179)	[600; 1700] (81)	[600; 1500] (4178)	[650; 2200] (72)	[1100; 2500] (28)	[800; 1800] (137)	[1000; 3000] (752)	[600; 600] (1)	[600; 1600] (3179)	[500; 1800] (81)	[600; 2000] (4178)	[500; 1500] (72)
Artemether lumefantrine	₦850	₦600	₦1,150	₦0	₦650	₦700	₦700	₦700	₦1,500	₦1,000	₦2,000	₦600	₦800	₦600	₦800	₦600
	[700; 1000] (21)	[600; 700] (114)	[850; 2500] (561)	-	[600; 900] (2835)	[600; 800] (70)	[600; 1150] (3602)	[500; 2200] (59)	[700; 2500] (21)	[800; 1500] (114)	[850; 3000] (561)	[600; 600] (1)	[600; 1400] (2835)	[500; 2000] (70)	[600; 2000] (3602)	[500; 1300] (59)
Artesunate amodiaquine	₦0	₦0	₦1,400	₦0	₦800	₦0	₦1,400	₦0	₦1,100	₦1,700	₦1,400	₦0	₦1,250	₦0	₦1,250	₦1,300
	-	-	[1300; 1500] (68)	-	[800; 800] (51)	-	[1300; 1500] (130)	-	[1100; 1250] (3)	[1400; 2200] (8)	[1200; 1600] (68)	-	[1000; 1500] (51)	-	[1075; 1500] (130)	[1300; 1300] (1)
Artemisinin piperaquine	₦0	₦0	₦6,854	₦0	₦3,226	₦7,056	₦5,846	₦0	₦3,024	₦3,629	₦5,443	₦0	₦4,032	₦0	₦5,040	₦0
	-	-	[6854.4; 6854.4] (23)	-	[3024; 5846.4] (31)	[7056; 7056] (1)	[3225.6; 6854.4] (57)	-	[3024; 3024] (1)	[3628.8; 3628.8] (1)	[5040; 6048] (23)	-	[3628.8; 5644.8] (31)	-	[3628.8; 5644.8] (57)	-
Dihydroartemisinin piperaquine	₦0	₦0	₦2,000	₦0	₦1,600	₦1,400	₦1,600	₦1,400	₦2,500	₦2,000	₦1,850	₦0	₦1,500	₦1,500	₦1,700	₦1,500
	-	-	[1500; 2000] (93)	-	[1000; 1800] (256)	[600; 1700] (10)	[1300; 2000] (375)	[1200; 1600] (12)	[2500; 2500] (2)	[1700; 2000] (14)	[1600; 2050] (93)	-	[1200; 2000] (256)	[900; 1500] (10)	[1300; 2000] (375)	[1400; 1600] (12)
Arterolane piperaquine	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦4,300	₦0	₦5,000	₦0	₦4,300	₦0
	-	-	-	-	-	-	-	-	-	-	[3500; 4600] (7)	-	[5000; 16000] (4)	-	[3500; 5000] (11)	-
Any other ACT	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦0	₦2,500	₦0	₦0	₦0	₦1,000	₦0	₦1,000	₦0
	-	-	-	-	-	-	-	-	[2500; 2500] (1)	-	-	-	[1000; 1000] (2)	-	[1000; 2500] (3)	-

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KANO	Rural								Urban							
Type of antimalarial (tablets)	Not-for-profit facility Median Naira [IQR] (N)	For-profit facility Median Naira [IQR] (N)	Pharmacy Median Naira [IQR] (N)	Laboratory Median Naira [IQR] (N)	PPMV Median Naira [IQR] (N)	Informal Median Naira [IQR] (N)	Retail total Median Naira [IQR] (N)	Whole-sale Median Naira [IQR] (N)	Not-for-profit facility Median Naira [IQR] (N)	For-profit facility Median Naira [IQR] (N)	Pharmacy Median Naira [IQR] (N)	Laboratory Median Naira [IQR] (N)	PPMV Median Naira [IQR] (N)	Informal Median Naira [IQR] (N)	Retail total Median Naira [IQR] (N)	Whole-sale Median Naira [IQR] (N)
Nationally approved ACT	₦700 [700; 700] (24)	₦600 [600; 700] (100)	₦1,600 [1000; 2900] (502)	₦0 -	₦650 [550; 1000] (2534)	₦700 [500; 2300] (53)	₦700 [600; 1500] (3214)	₦700 [500; 2200] (58)	₦2,000 [600; 3024] (24)	₦1,000 [700; 1500] (100)	₦1,700 [800; 3000] (502)	₦600 [600; 600] (1)	₦700 [600; 1500] (2534)	₦600 [500; 1500] (53)	₦800 [600; 2000] (3214)	₦600 [500; 1500] (58)
Stocks QA ACT (WHO PQ)	₦1,000 [1000; 1000] (3)	₦350 [350; 3500] (16)	₦667 [666.7; 1200] (82)	₦0 -	₦600 [550; 800] (346)	₦800 [800; 800] (14)	₦600 [600; 800] (461)	₦0 -	₦500 [500; 3000] (3)	₦800 [400; 1000] (16)	₦4,500 [3000; 6400] (82)	₦0 -	₦667 [533.3; 933.3] (346)	₦600 [533.3; 800] (14)	₦800 [600; 3000] (461)	₦500 [500; 533.3] (4)
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦1,200 [1200; 1200] (9)	₦0 -	₦667 [600; 800] (149)	₦800 [800; 800] (8)	₦733 [600; 800] (174)	₦0 -	₦500 [500; 500] (1)	₦800 [666.7; 1000] (7)	₦667 [666.7; 800] (9)	₦0 -	₦600 [500; 800] (149)	₦600 [500; 800] (8)	₦600 [500; 800] (174)	₦500 [500; 800] (2)
ACT that is WHO PQ but not nationally approved	₦1,000 [1000; 1000] (2)	₦350 [350; 3500] (9)	₦667 [666.7; 666.7] (73)	₦0 -	₦600 [533.3; 800] (197)	₦0 -	₦600 [533.3; 800] (287)	₦0 -	₦3,000 [3000; 3000] (2)	₦800 [400; 6800] (9)	₦5,000 [3600; 7800] (73)	₦0 -	₦700 [600; 1000] (197)	₦800 [600; 4000] (6)	₦1,000 [600; 4300] (287)	₦517 [500; 533.3] (2)
ACT that is nationally approved but not WHO PQ	₦700 [700; 700] (17)	₦600 [600; 900] (82)	₦1,600 [1000; 2900] (455)	₦0 -	₦700 [600; 1200] (2078)	₦700 [550; 2500] (42)	₦700 [600; 1700] (2675)	₦700 [650; 2300] (48)	₦2,000 [1300; 3024] (17)	₦1,200 [800; 1500] (82)	₦2,000 [900; 3000] (455)	₦600 [600; 600] (1)	₦800 [600; 2000] (2078)	₦700 [600; 2200] (42)	₦900 [600; 2400] (2675)	₦600 [500; 1500] (48)
ACT not nationally approved or WHO PQ	₦0 -	₦600 [600; 600] (39)	₦1,300 [1000; 2000] (215)	₦0 -	₦700 [600; 1500] (755)	₦700 [600; 700] (25)	₦800 [600; 1500] (1042)	₦1,000 [500; 1600] (20)	₦1,500 [1200; 2500] (8)	₦1,200 [1000; 2000] (39)	₦1,500 [1000; 2000] (215)	₦0 -	₦1,000 [600; 1500] (755)	₦700 [500; 1800] (25)	₦1,000 [700; 1800] (1042)	₦1,300 [780; 1650] (20)
Non-artemisinins	₦0 -	₦350 [350; 500] (26)	₦15,000 [400; 15000] (94)	₦0 -	₦250 [250; 350] (620)	₦300 [250; 2081.6] (13)	₦300 [250; 400] (761)	₦250 [250; 300] (15)	₦1,000 [400; 3469.3] (7)	₦500 [450; 1387.7] (26)	₦700 [375; 12000] (94)	₦200 [200; 200] (1)	₦300 [250; 500] (620)	₦350 [200; 3000] (13)	₦300 [250; 600] (761)	₦300 [250; 350] (15)
Oral quinine	₦0 -	₦0 -	₦3,469 [3469.3; 3469.3] (14)	₦0 -	₦2,520 [2520.1; 3360.1] (20)	₦2,082 [2081.6; 2081.6] (1)	₦2,520 [2520.1; 3360.1] (41)	₦1,890 [1890.1; 1890.1] (2)	₦3,469 [336; 3469.3] (2)	₦3,469 [1387.7; 4163.2] (4)	₦2,940 [2602; 4200.2] (14)	₦0 -	₦2,520 [2100.1; 2940.1] (20)	₦0 -	₦2,940 [2100.1; 3469.3] (41)	₦2,940 [2940.1; 2940.1] (2)
Chloroquine	₦0 -	₦0 -	₦1,167 [1166.7; 1166.7] (7)	₦0 -	₦250 [180; 300] (79)	₦300 [300; 300] (1)	₦300 [180; 300] (88)	₦250 [250; 250] (3)	₦300 [300; 300] (1)	₦0 -	₦375 [300; 500] (7)	₦0 -	₦300 [300; 400] (79)	₦0 -	₦300 [300; 400] (88)	₦300 [300; 1666.7] (3)
Sulfadoxine pyrimethamine	₦0 -	₦350 [350; 500] (22)	₦15,000 [400; 15000] (71)	₦0 -	₦250 [250; 300] (506)	₦250 [150; 15000] (11)	₦250 [250; 350] (615)	₦250 [200; 250] (10)	₦1,000 [400; 1000] (4)	₦500 [450; 500] (22)	₦500 [300; 14000] (71)	₦200 [200; 200] (1)	₦300 [250; 500] (506)	₦350 [200; 3000] (11)	₦300 [250; 500] (615)	₦250 [200; 250] (10)
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 -	₦0 -	₦0 -	₦294 [294.1; 294.1] (15)	₦0 -	₦294 [294.1; 294.1] (17)	₦0 -	₦0 -	₦0 -	₦882 [882.4; 7200] (2)	₦0 -	₦300 [300; 600] (15)	₦0 -	₦600 [300; 882.4] (17)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Kano Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 19; N Antimalarial products audited but missing price information = 652

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LAGOS

Type of antimalarial (tablets)	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
Any antimalarial	₦0 -	₦1,333 [700; 3500] (76)	₦1,700 [1000; 2500] (2372)	₦0 -	₦1,000 [800; 2000] (2310)	₦800 [600; 900] (172)	₦1,200 [800; 2000] (4935)	₦0 -	₦1,740 [700; 1740] (5)	₦2,000 [1000; 4800] (76)	₦1,800 [1150; 2900] (2372)	₦0 -	₦1,100 [800; 2000] (2310)	₦1,067 [800; 1600] (172)	₦1,500 [900; 2500] (4935)	₦2,000 [2000; 4400] (3)
Any ACT	₦0 -	₦1,000 [700; 2200] (60)	₦1,700 [1000; 2500] (2193)	₦0 -	₦1,067 [800; 2000] (2006)	₦900 [800; 1000] (145)	₦1,300 [900; 2100] (4409)	₦0 -	₦1,740 [700; 1740] (5)	₦2,000 [1200; 4000] (60)	₦1,800 [1200; 2800] (2193)	₦0 -	₦1,200 [800; 2000] (2006)	₦1,067 [800; 1500] (145)	₦1,500 [1000; 2500] (4409)	₦2,000 [2000; 4400] (3)
Artemether lumefantrine	₦0 -	₦1,000 [700; 2000] (55)	₦1,550 [850; 2500] (1599)	₦0 -	₦1,000 [800; 2000] (1851)	₦900 [800; 1000] (141)	₦1,100 [800; 2000] (3650)	₦0 -	₦1,740 [550; 1740] (4)	₦1,800 [1200; 4000] (55)	₦2,000 [1150; 2900] (1599)	₦0 -	₦1,200 [800; 2000] (1851)	₦1,067 [800; 1500] (141)	₦1,500 [1000; 2500] (3650)	₦2,000 [2000; 4400] (3)
Artesunate amodiaquine	₦0 -	₦0 -	₦1,150 [1000; 1500] (161)	₦0 -	₦1,250 [1100; 1250] (47)	₦0 -	₦1,150 [1000; 1500] (210)	₦0 -	₦2,500 [2500; 2500] (1)	₦1,000 [1000; 1000] (1)	₦1,250 [1150; 1500] (161)	₦0 -	₦1,250 [900; 1450] (47)	₦0 -	₦1,250 [1000; 1500] (210)	₦0 -
Artemisinin piperaquine	₦0 -	₦0 -	₦4,435 [4032; 4435.2] (82)	₦0 -	₦0 -	₦0 -	₦4,435 [4032; 4435.2] (88)	₦0 -	₦0 -	₦0 -	₦5,040 [4032; 5443.2] (82)	₦0 -	₦4,435 [3628.8; 7660.8] (6)	₦0 -	₦5,040 [3830.4; 5443.2] (88)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦4,000 [4000; 4000] (4)	₦1,800 [1700; 2000] (320)	₦0 -	₦2,000 [1500; 2100] (102)	₦0 -	₦1,850 [1700; 2000] (430)	₦0 -	₦0 -	₦2,250 [2250; 2500] (4)	₦1,850 [1500; 2000] (320)	₦0 -	₦1,800 [1500; 2100] (102)	₦1,620 [1600; 2700] (4)	₦1,850 [1500; 2050] (430)	₦0 -
Arterolane piperaquine	₦0 -	₦0 -	₦4,900 [4600; 5300] (30)	₦0 -	₦0 -	₦0 -	₦4,900 [4600; 5300] (30)	₦0 -	₦0 -	₦0 -	₦4,700 [4600; 5500] (30)	₦0 -	₦0 -	₦0 -	₦4,700 [4600; 5500] (30)	₦0 -
Any other ACT	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦703 [703.3; 703.3] (1)	₦0 -	₦0 -	₦0 -	₦703 [703.3; 703.3] (1)	₦0 -
Nationally approved ACT	₦0 -	₦2,200 [1333.3; 4000] (47)	₦1,700 [800; 2500] (1295)	₦0 -	₦1,000 [800; 2000] (1497)	₦800 [600; 900] (94)	₦1,000 [800; 2200] (2937)	₦0 -	₦1,740 [550; 2500] (4)	₦1,500 [800; 2000] (47)	₦2,000 [1200; 3000] (1295)	₦0 -	₦1,200 [800; 2100] (1497)	₦1,067 [800; 1400] (94)	₦1,500 [850; 2500] (2937)	₦2,000 [2000; 2000] (1)
Stocks QA ACT (WHO PQ)	₦0 -	₦0 -	₦5,200 [5000; 5200] (110)	₦0 -	₦667 [666.7; 700] (23)	₦0 -	₦3,000 [666.7; 5200] (143)	₦0 -	₦0 -	₦6,000 [4800; 14000] (4)	₦4,500 [2925; 6100] (110)	₦0 -	₦700 [700; 800] (23)	₦700 [700; 800] (6)	₦4,200 [2000; 6000] (143)	₦4,400 [4400; 4400] (1)
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦0 -	₦0 -	₦667 [666.7; 666.7] (2)	₦0 -	₦667 [666.7; 666.7] (11)	₦0 -	₦0 -	₦0 -	₦2,513 [2400; 2850] (7)	₦0 -	₦1,200 [1200; 1200] (2)	₦1,000 [1000; 1200] (2)	₦2,513 [1500; 2850] (11)	₦0 -
ACT that is WHO PQ but not nationally approved	₦0 -	₦0 -	₦5,200 [5000; 5200] (103)	₦0 -	₦1,200 [700; 2800] (21)	₦0 -	₦5,000 [3000; 5200] (132)	₦0 -	₦0 -	₦6,000 [4800; 14000] (4)	₦4,800 [3500; 6300] (103)	₦0 -	₦700 [700; 800] (21)	₦700 [700; 800] (4)	₦4,500 [2000; 6000] (132)	₦4,400 [4400; 4400] (1)
ACT that is nationally approved but not WHO PQ	₦0 -	₦2,200 [1800; 3500] (42)	₦1,900 [800; 2600] (1229)	₦0 -	₦1,000 [800; 2000] (1352)	₦900 [800; 1000] (77)	₦1,067 [800; 2400] (2704)	₦0 -	₦1,740 [550; 2500] (4)	₦1,500 [1000; 2000] (42)	₦2,000 [1333.3; 3000] (1229)	₦0 -	₦1,200 [800; 2300] (1352)	₦1,200 [1000; 1500] (77)	₦1,600 [1000; 2700] (2704)	₦2,000 [2000; 2000] (1)
ACT not nationally approved or WHO PQ	₦0 -	₦700 [700; 700] (14)	₦1,700 [1110; 2000] (854)	₦0 -	₦1,500 [1000; 1800] (631)	₦700 [700; 700] (62)	₦1,500 [1000; 1850] (1562)	₦0 -	₦1,740 [1740; 1740] (1)	₦1,500 [1500; 2000] (14)	₦1,500 [1066.7; 2000] (854)	₦0 -	₦1,200 [900; 1700] (631)	₦900 [800; 1600] (62)	₦1,300 [1000; 1950] (1562)	₦700 [700; 700] (1)
Non-artemisinins	₦0 -	₦6,300 [700; 6300.2] (16)	₦1,000 [600; 14000] (179)	₦0 -	₦500 [400; 882.4] (304)	₦500 [400; 600] (27)	₦500 [400; 1000] (526)	₦0 -	₦0 -	₦14,000 [500; 30000] (16)	₦500 [450; 13750] (179)	₦0 -	₦500 [400; 700] (304)	₦3,000 [600; 4000] (27)	₦500 [400; 4000] (526)	₦0 -
Oral quinine	₦0 -	₦6,300 [6300.2; 6300.2] (1)	₦0 -	₦0 -	₦0 -	₦0 -	₦6,300 [6300.2; 6300.2] (10)	₦0 -	₦0 -	₦0 -	₦2,100 [2081.6; 2940.1] (8)	₦0 -	₦4,200 [4200.2; 4200.2] (1)	₦0 -	₦2,520 [2081.6; 3780.1] (10)	₦0 -
Chloroquine	₦0 -	₦700 [700; 700] (1)	₦1,000 [600; 1000] (33)	₦0 -	₦400 [360; 500] (69)	₦600 [600; 600] (6)	₦500 [360; 700] (109)	₦0 -	₦0 -	₦0 -	₦500 [400; 550] (33)	₦0 -	₦600 [500; 700] (69)	₦600 [500; 600] (6)	₦500 [480; 650] (109)	₦0 -

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LAGOS	Rural								Urban							
Type of antimalarial (tablets)	Not-for-profit facility Median Naira [IQR] (N)	For-profit facility Median Naira [IQR] (N)	Pharmacy Median Naira [IQR] (N)	Laboratory Median Naira [IQR] (N)	PPMV Median Naira [IQR] (N)	Informal Median Naira [IQR] (N)	Retail total Median Naira [IQR] (N)	Whole-sale Median Naira [IQR] (N)	Not-for-profit facility Median Naira [IQR] (N)	For-profit facility Median Naira [IQR] (N)	Pharmacy Median Naira [IQR] (N)	Laboratory Median Naira [IQR] (N)	PPMV Median Naira [IQR] (N)	Informal Median Naira [IQR] (N)	Retail total Median Naira [IQR] (N)	Whole-sale Median Naira [IQR] (N)
Sulfadoxine pyrimethamine	₦0 -	₦400 [400; 10000] (14)	₦12,000 [600; 16000] (135)	₦0 -	₦500 [400; 10000] (217)	₦400 [400; 400] (18)	₦500 [400; 12000] (384)	₦0 -	₦0 -	₦14,000 [500; 30000] (14)	₦600 [500; 16000] (135)	₦0 -	₦500 [400; 700] (217)	₦3,000 [500; 6000] (18)	₦500 [400; 10000] (384)	₦0 -
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 -	₦0 -	₦0 -	₦882 [882.4; 882.4] (17)	₦0 -	₦882 [882.4; 882.4] (22)	₦0 -	₦0 -	₦0 -	₦10,800 [9600; 12000] (2)	₦0 -	₦1,200 [1176.5; 1470.6] (17)	₦600 [600; 600] (3)	₦1,050 [600; 1372.5] (22)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦10,900 [10900; 10900] (1)	₦0 -	₦0 -	₦0 -	₦10,900 [10900; 10900] (1)	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Lagos Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 34; N Antimalarial products audited but missing price information = 652

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Table 31. Median retail price of adult equivalent treatment dose (AETD) for tablet formulation types in USD, disaggregated by urban and rural areas

ABIA	Rural								Urban							
	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)
Any antimalarial	$0.90 [0.6; 0.9] (31)	$0.70 [0.5; 0.7] (33)	$0.60 [0.3; 0.9] (651)	$0.00 -	$0.70 [0.6; 0.9] (5721)	$0.80 [0.5; 0.9] (52)	$0.70 [0.5; 0.9] (6495)	$0.60 [0.4; 1.1] (205)	$0.80 [0.6; 1.6] (31)	$0.90 [0.4; 1.3] (33)	$0.80 [0.6; 1.3] (651)	$0.80 [0.8; 0.9] (7)	$0.80 [0.5; 1.1] (5721)	$0.60 [0.5; 0.6] (52)	$0.80 [0.5; 1.1] (6495)	$0.60 [0.4; 0.9] (205)
Any ACT	$0.90 [0.6; 0.9] (28)	$0.50 [0.4; 0.7] (27)	$0.60 [0.3; 0.9] (609)	$0.00 -	$0.80 [0.6; 0.9] (5398)	$0.80 [0.6; 0.9] (47)	$0.80 [0.6; 0.9] (6116)	$0.60 [0.4; 1.1] (197)	$0.80 [0.6; 1.3] (28)	$0.80 [0.4; 1.3] (27)	$0.90 [0.6; 1.3] (609)	$0.80 [0.8; 0.9] (7)	$0.80 [0.5; 1.1] (5398)	$0.60 [0.5; 0.6] (47)	$0.80 [0.5; 1.1] (6116)	$0.60 [0.4; 0.9] (197)
Artemether lumefantrine	$0.90 [0.6; 0.9] (26)	$0.50 [0.4; 0.7] (24)	$0.60 [0.3; 0.9] (462)	$0.00 -	$0.70 [0.6; 0.9] (4909)	$0.80 [0.6; 0.9] (41)	$0.70 [0.6; 0.9] (5469)	$0.60 [0.4; 1] (178)	$0.80 [0.6; 1.3] (26)	$0.90 [0.5; 1.3] (24)	$0.80 [0.6; 1.4] (462)	$0.80 [0.8; 0.9] (7)	$0.70 [0.5; 1] (4909)	$0.50 [0.4; 0.6] (41)	$0.80 [0.5; 1.1] (5469)	$0.50 [0.4; 1] (178)
Artesunate amodiaquine	$0.00 -	$0.00 -	$0.30 [0.3; 0.5] (28)	$0.00 -	$0.70 [0.6; 0.9] (84)	$0.80 [0.8; 0.8] (1)	$0.70 [0.5; 0.9] (116)	$0.00 -	$0.50 [0.5; 0.5] (2)	$0.40 [0.4; 0.4] (1)	$0.70 [0.5; 1] (28)	$0.00 -	$0.70 [0.5; 1.1] (84)	$0.00 -	$0.60 [0.5; 1] (116)	$0.30 [0.3; 0.8] (3)
Artemisinin piperaquine	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$2.50 [2.5; 2.5] (14)	$2.00 [2; 2] (1)	$2.50 [2; 2.5] (27)	$0.00 -	$0.00 -	$0.00 -	$1.50 [1.5; 2.9] (12)	$0.00 -	$2.50 [1.9; 3.2] (14)	$0.00 -	$1.90 [1.5; 3.1] (27)	$0.00 -
Dihydroartemisinin piperaquine	$0.00 -	$0.00 -	$0.80 [0.6; 1.1] (98)	$0.00 -	$0.90 [0.7; 1] (385)	$0.70 [0.5; 0.9] (4)	$0.90 [0.7; 1] (489)	$1.40 [1.4; 1.4] (16)	$0.00 -	$0.40 [0.4; 1.3] (2)	$0.90 [0.6; 1.1] (98)	$0.00 -	$0.90 [0.8; 1.3] (385)	$0.70 [0.6; 0.8] (4)	$0.90 [0.8; 1.3] (489)	$0.80 [0.6; 0.9] (16)
Arterolane piperaquine	$0.00 -	$0.00 -	$0.60 [0.6; 0.6] (8)	$0.00 -	$0.00 -	$0.00 -	$0.60 [0.6; 0.6] (13)	$0.00 -	$0.00 -	$0.00 -	$0.90 [0.6; 1.3] (8)	$0.00 -	$2.80 [2.5; 2.9] (5)	$0.00 -	$1.30 [0.9; 2.8] (13)	$0.00 -
Any other ACT	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.10 [0.1; 0.1] (1)	$0.00 -	$0.70 [0.7; 0.7] (1)	$0.00 -	$0.40 [0.1; 0.7] (2)	$0.00 -
Nationally approved ACT	$0.90 [0.9; 0.9] (17)	$0.50 [0.4; 0.7] (20)	$0.80 [0.3; 0.9] (366)	$0.00 -	$0.70 [0.6; 1] (3571)	$0.90 [0.6; 1.1] (32)	$0.70 [0.6; 1] (4013)	$0.60 [0.4; 1.3] (152)	$0.80 [0.6; 1.6] (17)	$0.90 [0.5; 1.5] (20)	$0.90 [0.6; 1.5] (366)	$0.80 [0.8; 0.9] (7)	$0.80 [0.5; 1.3] (3571)	$0.50 [0.4; 0.6] (32)	$0.80 [0.5; 1.3] (4013)	$0.60 [0.4; 0.9] (152)
Stocks QA ACT (WHO PQ)	$0.00 -	$0.00 -	$0.50 [0.5; 0.5] (12)	$0.00 -	$0.50 [0.5; 0.8] (79)	$0.00 -	$0.50 [0.5; 0.8] (91)	$0.00 -	$0.00 -	$0.00 -	$0.80 [0.5; 0.9] (12)	$0.00 -	$0.50 [0.5; 0.6] (79)	$0.00 -	$0.60 [0.5; 0.8] (91)	$0.00 -
ACT that is both WHO PQ and nationally approved	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$1.50 [1.5; 1.5] (1)	$0.00 -	$1.50 [1.5; 1.5] (1)	$0.00 -
ACT that is WHO PQ but not nationally approved	$0.00 -	$0.00 -	$0.50 [0.5; 0.5] (12)	$0.00 -	$0.50 [0.5; 0.8] (78)	$0.00 -	$0.50 [0.5; 0.8] (90)	$0.00 -	$0.00 -	$0.00 -	$0.80 [0.5; 0.9] (12)	$0.00 -	$0.50 [0.4; 0.6] (78)	$0.00 -	$0.50 [0.5; 0.8] (90)	$0.00 -
ACT that is nationally approved but not WHO PQ	$0.90 [0.9; 0.9] (17)	$0.50 [0.4; 0.7] (19)	$0.80 [0.3; 0.9] (361)	$0.00 -	$0.70 [0.6; 1] (3519)	$0.90 [0.6; 1.1] (32)	$0.70 [0.6; 1] (3955)	$0.60 [0.4; 1.3] (149)	$0.80 [0.6; 1.6] (17)	$0.80 [0.5; 1.3] (19)	$0.90 [0.6; 1.5] (361)	$0.80 [0.8; 0.9] (7)	$0.80 [0.5; 1.3] (3519)	$0.50 [0.4; 0.6] (32)	$0.80 [0.6; 1.3] (3955)	$0.60 [0.4; 1] (149)
ACT not nationally approved or WHO PQ	$0.60 [0.6; 0.9] (11)	$0.00 -	$0.50 [0.4; 0.6] (236)	$0.00 -	$0.80 [0.6; 0.9] (1800)	$0.80 [0.5; 0.8] (15)	$0.80 [0.6; 0.9] (2070)	$0.60 [0.1; 0.9] (48)	$0.60 [0.6; 1.3] (11)	$0.80 [0.4; 1.3] (8)	$0.80 [0.6; 1] (236)	$0.00 -	$0.60 [0.5; 0.9] (1800)	$0.70 [0.5; 1] (15)	$0.60 [0.5; 0.9] (2070)	$0.50 [0.4; 0.8] (48)
Non-artemisinins	$0.00 -	$15.20 [15.2; 15.2] (6)	$0.20 [0.2; 0.2] (42)	$0.00 -	$0.40 [0.3; 0.6] (323)	$0.30 [0.3; 5.1] (5)	$0.40 [0.3; 0.6] (379)	$0.00 [0; 0] (8)	$2.30 [2.3; 10.1] (3)	$1.60 [0; 2.1] (6)	$0.50 [0.3; 6.3] (42)	$0.00 -	$0.40 [0.3; 5.7] (323)	$0.00 -	$0.40 [0.3; 5.7] (379)	$0.30 [0.3; 6.3] (8)
Oral quinine	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$2.10 [2.1; 2.1] (1)	$1.50 [1.3; 1.6] (3)	$0.00 -	$1.60 [1.3; 2.1] (5)	$0.00 -	$1.60 [1.3; 2.1] (9)	$0.00 -
Chloroquine	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 [0; 0.3] (10)	$0.00 -	$0.00 [0; 0.3] (15)	$0.00 [0; 0] (1)	$0.00 -	$0.00 -	$0.30 [0.3; 2.8] (5)	$0.00 -	$0.30 [0.2; 0.3] (10)	$0.00 -	$0.30 [0.3; 0.3] (15)	$0.00 -
Sulfadoxine pyrimethamine	$0.00 -	$15.20 [15.2; 15.2] (2)	$0.20 [0.2; 0.2] (34)	$0.00 -	$0.40 [0.3; 0.5] (266)	$0.30 [0.3; 5.1] (5)	$0.40 [0.3; 0.6] (309)	$0.00 -	$10.10 [0.3; 10.1] (2)	$0.50 [0.5; 0.5] (2)	$0.50 [0.3; 10.1] (34)	$0.00 -	$0.40 [0.3; 6.3] (266)	$0.00 -	$0.40 [0.3; 6.3] (309)	$0.30 [0.3; 6.3] (7)
Sulfadoxine pyrimethamine amodiaquine	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.70 [0.6; 0.7] (26)	$0.00 -	$0.70 [0.6; 0.7] (29)	$0.00 -	$2.30 [2.3; 2.3] (1)	$1.60 [0; 1.6] (2)	$0.00 -	$0.00 -	$0.70 [0.1; 0.8] (26)	$0.00 -	$0.70 [0.1; 1.5] (29)	$0.00 -
Other non-artemisinins	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 [0; 0] (1)	$0.00 -	$0.00 -	$0.00 [0; 0] (16)	$0.00 -	$0.00 [0; 0] (17)	$0.00 -
Oral artemisinin monotherapy	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

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ABIA

	Rural								Urban							
	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Abia Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 11; N Antimalarial products audited but missing price information = 652

KANO

	Rural								Urban							
	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)
Any antimalarial	$0.50 [0.4; 0.6] (35)	$0.60 [0.4; 0.6] (163)	$0.90 [0.4; 1.8] (846)	$0.00 -	$0.40 [0.3; 0.6] (3800)	$0.50 [0.4; 1.5] (94)	$0.40 [0.4; 0.6] (4940)	$0.40 [0.3; 1.4] (87)	$0.80 [0.4; 1.6] (35)	$0.90 [0.5; 1.6] (163)	$1.00 [0.5; 1.8] (846)	$0.30 [0.1; 0.4] (2)	$0.40 [0.4; 1] (3800)	$0.40 [0.3; 1.1] (94)	$0.50 [0.4; 1.3] (4940)	$0.40 [0.3; 1.1] (87)
Any ACT	$0.50 [0.4; 0.6] (28)	$0.60 [0.4; 0.6] (137)	$0.90 [0.4; 1.8] (752)	$0.00 -	$0.40 [0.4; 0.6] (3180)	$0.50 [0.4; 1.5] (81)	$0.40 [0.4; 0.8] (4179)	$0.50 [0.4; 1.6] (72)	$1.30 [0.5; 1.8] (28)	$0.90 [0.5; 1.3] (137)	$1.00 [0.6; 1.8] (752)	$0.40 [0.4; 0.4] (1)	$0.50 [0.4; 1.3] (3180)	$0.40 [0.3; 1.1] (81)	$0.60 [0.4; 1.4] (4179)	$0.50 [0.4; 1.1] (72)
Artemether lumefantrine	$0.50 [0.4; 0.6] (21)	$0.60 [0.4; 0.6] (114)	$0.80 [0.4; 1.9] (561)	$0.00 -	$0.40 [0.4; 0.5] (2836)	$0.50 [0.4; 1.5] (70)	$0.40 [0.4; 0.6] (3603)	$0.50 [0.4; 1.6] (59)	$1.50 [0.4; 1.9] (21)	$0.80 [0.5; 1.3] (114)	$0.90 [0.5; 1.8] (561)	$0.40 [0.4; 0.4] (1)	$0.40 [0.4; 1] (2836)	$0.40 [0.3; 0.6] (70)	$0.50 [0.4; 1.4] (3603)	$0.40 [0.3; 1.5] (59)
Artesunate amodiaquine	$0.00 -	$0.00 -	$0.60 [0.6; 0.9] (68)	$0.00 -	$0.60 [0.5; 1.1] (51)	$0.00 -	$0.60 [0.6; 1.1] (130)	$0.00 -	$0.80 [0.8; 1.1] (3)	$1.10 [1.1; 1.3] (8)	$0.90 [0.8; 0.9] (68)	$0.00 -	$0.80 [0.6; 0.9] (51)	$0.00 -	$0.90 [0.7; 1] (130)	$0.80 [0.8; 0.8] (1)
Artemisinin piperaquine	$0.00 -	$0.00 -	$3.40 [3.4; 3.4] (23)	$0.00 -	$2.00 [0.3; 3.8] (31)	$4.50 [4.5; 4.5] (1)	$3.40 [1.9; 3.8] (57)	$0.00 -	$1.90 [1.9; 1.9] (1)	$2.30 [2.3; 2.3] (1)	$3.40 [2.4; 3.8] (23)	$0.00 -	$2.50 [2; 3.8] (31)	$0.00 -	$3.10 [2.2; 3.8] (57)	$0.00 -
Dihydroartemisinin piperaquine	$0.00 -	$0.00 -	$1.30 [1.1; 1.5] (93)	$0.00 -	$0.90 [0.6; 1.1] (256)	$0.90 [0.4; 1.1] (10)	$0.90 [0.6; 1.3] (375)	$0.90 [0.8; 1] (12)	$1.30 [1.3; 1.3] (2)	$1.20 [1; 1.6] (14)	$1.10 [0.9; 1.3] (93)	$0.00 -	$1.10 [0.9; 1.3] (256)	$1.20 [0.9; 1.5] (10)	$1.10 [0.9; 1.3] (375)	$1.00 [0.9; 1.1] (12)
Arterolane piperaquine	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$2.20 [0.9; 2.7] (7)	$0.00 -	$3.20 [2.2; 3.2] (4)	$0.00 -	$2.20 [0.9; 2.9] (11)	$0.00 -
Any other ACT	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$1.60 [1.6; 1.6] (1)	$0.00 -	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (2)	$0.00 -	$0.40 [0.4; 1.6] (3)	$0.00 -
Nationally approved ACT	$0.40 [0.4; 0.4] (24)	$0.60 [0.4; 0.6] (100)	$0.80 [0.4; 1.9] (502)	$0.00 -	$0.40 [0.4; 0.5] (2534)	$1.10 [0.4; 1.6] (53)	$0.40 [0.4; 0.6] (3214)	$0.40 [0.3; 1.5] (58)	$0.50 [0.2; 1.5] (24)	$0.90 [0.5; 1.6] (100)	$0.90 [0.5; 1.8] (502)	$0.40 [0.4; 0.4] (1)	$0.40 [0.4; 1] (2534)	$0.40 [0.3; 0.8] (53)	$0.50 [0.4; 1.4] (3214)	$0.50 [0.3; 1.5] (58)
Stocks QA ACT (WHO PQ)	$0.60 [0.6; 0.6] (3)	$2.20 [0.2; 2.2] (16)	$0.80 [0.8; 2.5] (82)	$0.00 -	$0.40 [0.4; 0.5] (345)	$0.50 [0.5; 0.5] (14)	$0.40 [0.4; 0.5] (460)	$0.00 -	$1.90 [0.3; 1.9] (3)	$0.50 [0.3; 2.5] (16)	$2.30 [0.6; 3.2] (82)	$0.00 -	$0.40 [0.3; 0.6] (345)	$0.30 [0.3; 0.5] (14)	$0.50 [0.4; 1.3] (460)	$0.30 [0.3; 0.3] (4)
ACT that is both WHO PQ and nationally approved	$0.00 -	$0.00 -	$0.80 [0.8; 0.8] (9)	$0.00 -	$0.50 [0.4; 0.8] (148)	$0.50 [0.5; 0.5] (8)	$0.50 [0.4; 0.8] (173)	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.30 [0.3; 0.3] (7)	$0.40 [0.3; 0.6] (9)	$0.00 -	$0.40 [0.3; 0.5] (148)	$0.30 [0.3; 0.5] (8)	$0.40 [0.3; 0.5] (173)	$0.50 [0.3; 0.5] (2)
ACT that is WHO PQ but not nationally approved	$0.60 [0.6; 0.6] (2)	$2.20 [0.2; 2.2] (9)	$2.50 [2.5; 2.5] (73)	$0.00 -	$0.40 [0.3; 0.4] (197)	$0.00 -	$0.40 [0.3; 0.4] (287)	$0.00 -	$1.90 [1.9; 1.9] (2)	$2.50 [0.8; 5.7] (9)	$2.70 [1.8; 3.5] (73)	$0.00 -	$0.40 [0.4; 0.8] (197)	$0.40 [0.3; 0.5] (6)	$0.60 [0.4; 2.5] (287)	$0.30 [0.3; 0.3] (2)
ACT that is nationally approved but not WHO PQ	$0.40 [0.4; 0.4] (17)	$0.60 [0.4; 0.6] (82)	$1.60 [0.4; 1.9] (455)	$0.00 -	$0.40 [0.4; 0.6] (2079)	$1.50 [0.4; 1.6] (42)	$0.40 [0.4; 0.8] (2676)	$0.40 [0.4; 1.6] (48)	$1.10 [0.4; 1.9] (17)	$0.90 [0.6; 1.3] (82)	$1.00 [0.5; 1.8] (455)	$0.40 [0.4; 0.4] (1)	$0.50 [0.4; 1.5] (2079)	$0.40 [0.3; 0.9] (42)	$0.60 [0.4; 1.6] (2676)	$0.80 [0.3; 1.5] (48)
ACT not nationally approved or WHO PQ	$0.00 -	$0.60 [0.6; 0.6] (39)	$0.90 [0.5; 1.3] (215)	$0.00 -	$0.50 [0.4; 0.7] (756)	$0.40 [0.4; 0.9] (25)	$0.50 [0.4; 0.9] (1043)	$0.60 [0.3; 1] (20)	$1.30 [0.8; 1.8] (8)	$0.90 [0.6; 1.3] (39)	$0.90 [0.6; 1.3] (215)	$0.00 -	$0.60 [0.4; 1.1] (756)	$0.90 [0.3; 1.3] (25)	$0.70 [0.4; 1.1] (1043)	$0.60 [0.4; 1.1] (20)
Non-artemisinins	$0.00 -	$0.10 [0.1; 0.2] (26)	$0.30 [0.2; 9.5] (94)	$0.00 -	$0.20 [0.2; 0.2] (620)	$0.20 [0.2; 1.3] (13)	$0.20 [0.2; 0.2] (761)	$0.20 [0.2; 0.2] (15)	$0.20 [0.2; 0.2] (7)	$0.40 [0.2; 2.7] (26)	$0.30 [0.2; 7.6] (94)	$0.10 [0.1; 0.1] (1)	$0.20 [0.2; 0.2] (620)	$0.20 [0.1; 1.9] (13)	$0.20 [0.2; 0.3] (761)	$0.20 [0.1; 1.9] (15)
Oral quinine	$0.00 -	$0.00 -	$2.20 [2.2; 2.2] (14)	$0.00 -	$1.60 [1.6; 2.1] (20)	$1.30 [1.3; 1.3] (1)	$1.60 [1.3; 2.1] (41)	$1.20 [1.2; 1.2] (2)	$0.20 [0.2; 2.2] (2)	$2.60 [2.6; 2.7] (4)	$1.30 [1.1; 1.6] (14)	$0.00 -	$1.30 [1.1; 2] (20)	$0.00 -	$1.30 [1.1; 2.2] (41)	$1.90 [1.9; 1.9] (2)
Chloroquine	$0.00 -	$0.00 -	$0.70 [0.7; 0.7] (7)	$0.00 -	$0.10 [0.1; 0.2] (79)	$0.20 [0.2; 0.2] (1)	$0.20 [0.1; 0.2] (88)	$0.20 [0.2; 0.2] (3)	$0.20 [0.2; 0.2] (1)	$0.00 -	$0.40 [0.3; 0.4] (7)	$0.00 -	$0.20 [0.2; 0.3] (79)	$0.00 -	$0.20 [0.2; 0.3] (88)	$1.10 [0.2; 1.1] (3)
Sulfadoxine pyrimethamine	$0.00 -	$0.10 [0.1; 0.2] (22)	$0.20 [0.2; 10.1] (71)	$0.00 -	$0.20 [0.2; 0.2] (506)	$0.20 [0.2; 0.2] (11)	$0.20 [0.2; 0.2] (615)	$0.20 [0.1; 0.2] (10)	$0.20 [0.2; 0.2] (4)	$0.30 [0.2; 6.3] (22)	$0.30 [0.2; 7.6] (71)	$0.10 [0.1; 0.1] (1)	$0.20 [0.2; 0.2] (506)	$0.20 [0.1; 1.9] (11)	$0.20 [0.2; 0.3] (615)	$0.20 [0.1; 0.2] (10)
Sulfadoxine pyrimethamine amodiaquine	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.20 [0.2; 0.2] (15)	$0.00 -	$0.20 [0.2; 0.2] (17)	$0.00 -	$0.00 -	$0.00 -	$4.50 [0.6; 4.5] (2)	$0.00 -	$0.20 [0.2; 0.4] (15)	$0.00 -	$0.20 [0.2; 0.4] (17)	$0.00 -

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KANO

	Rural								Urban							
	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)
Other non-artemisinins	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -
Oral artemisinin monotherapy	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -

Kano Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 19; N Antimalarial products audited but missing price information = 652

LAGOS

	Rural								Urban							
	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)
Any antimalarial	$0.00 -	$0.60 [0.4; 1.3] (76)	$1.10 [0.6; 1.8] (2372)	$0.00 -	$0.90 [0.5; 1.5] (2310)	$0.40 [0.3; 0.9] (172)	$0.90 [0.6; 1.6] (4935)	$0.00 -	$0.40 [0.4; 1.1] (5)	$1.10 [0.6; 2] (76)	$1.10 [0.7; 1.8] (2372)	$0.00 -	$0.80 [0.5; 1.3] (2310)	$0.90 [0.5; 1.3] (172)	$0.90 [0.6; 1.5] (4935)	$0.40 [0.4; 1.3] (3)
Any ACT	$0.00 -	$0.60 [0.6; 1.1] (60)	$1.10 [0.7; 1.7] (2193)	$0.00 -	$0.90 [0.6; 1.5] (2006)	$0.50 [0.4; 0.9] (145)	$0.90 [0.6; 1.6] (4409)	$0.00 -	$0.40 [0.4; 1.1] (5)	$1.10 [0.7; 1.6] (60)	$1.10 [0.8; 1.8] (2193)	$0.00 -	$0.80 [0.6; 1.3] (2006)	$0.90 [0.6; 1.3] (145)	$0.90 [0.6; 1.5] (4409)	$0.40 [0.4; 1.3] (3)
Artemether lumefantrine	$0.00 -	$0.60 [0.6; 0.8] (55)	$0.90 [0.6; 1.7] (1599)	$0.00 -	$0.90 [0.6; 1.5] (1851)	$0.50 [0.4; 0.9] (141)	$0.90 [0.6; 1.6] (3650)	$0.00 -	$0.40 [0.4; 0.4] (4)	$0.90 [0.6; 1.9] (55)	$1.00 [0.6; 1.8] (1599)	$0.00 -	$0.80 [0.6; 1.3] (1851)	$0.90 [0.6; 1.3] (141)	$0.90 [0.6; 1.5] (3650)	$0.40 [0.4; 1.3] (3)
Artesunate amodiaquine	$0.00 -	$0.00 -	$0.90 [0.8; 1.1] (161)	$0.00 -	$0.80 [0.8; 0.9] (47)	$0.00 -	$0.90 [0.8; 0.9] (210)	$0.00 -	$1.60 [1.6; 1.6] (1)	$0.60 [0.6; 0.6] (1)	$0.80 [0.8; 1] (161)	$0.00 -	$0.90 [0.6; 1.3] (47)	$0.00 -	$0.80 [0.8; 1] (210)	$0.00 -
Artemisinin piperaquine	$0.00 -	$0.00 -	$2.80 [2.5; 3] (82)	$0.00 -	$0.00 -	$0.00 -	$2.80 [2.5; 3] (88)	$0.00 -	$0.00 -	$0.00 -	$3.20 [2.7; 3.6] (82)	$0.00 -	$3.20 [2.8; 3.2] (6)	$0.00 -	$3.20 [2.7; 3.4] (88)	$0.00 -
Dihydroartemisinin piperaquine	$0.00 -	$2.50 [2.5; 2.5] (4)	$1.30 [1; 1.4] (320)	$0.00 -	$1.10 [0.9; 1.2] (102)	$0.00 -	$1.20 [0.9; 1.3] (430)	$0.00 -	$0.00 -	$1.60 [1.6; 1.6] (4)	$1.10 [0.9; 1.3] (320)	$0.00 -	$1.10 [0.9; 1.3] (102)	$1.00 [0.6; 1] (4)	$1.10 [0.9; 1.3] (430)	$0.00 -
Arterolane piperaquine	$0.00 -	$0.00 -	$3.20 [2.9; 3.3] (30)	$0.00 -	$0.00 -	$0.00 -	$3.20 [2.9; 3.3] (30)	$0.00 -	$0.00 -	$0.00 -	$3.10 [2.9; 3.3] (30)	$0.00 -	$0.00 -	$0.00 -	$3.10 [2.9; 3.3] (30)	$0.00 -
Any other ACT	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.00 -	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.00 -
Nationally approved ACT	$0.00 -	$0.60 [0.6; 1.3] (47)	$1.30 [0.6; 1.9] (1295)	$0.00 -	$0.90 [0.5; 1.6] (1497)	$0.50 [0.3; 0.9] (94)	$1.00 [0.6; 1.7] (2937)	$0.00 -	$0.40 [0.4; 0.4] (4)	$0.90 [0.6; 1.9] (47)	$1.30 [0.8; 1.9] (1295)	$0.00 -	$0.80 [0.5; 1.4] (1497)	$0.80 [0.5; 1.3] (94)	$0.90 [0.6; 1.6] (2937)	$1.30 [1.3; 1.3] (1)
Stocks QA ACT (WHO PQ)	$0.00 -	$0.00 -	$3.50 [2.5; 3.5] (110)	$0.00 -	$0.80 [0.4; 0.8] (23)	$0.00 -	$2.50 [1.8; 3.5] (143)	$0.00 -	$0.00 -	$2.50 [2.5; 3.8] (4)	$2.90 [2.2; 3.8] (110)	$0.00 -	$0.80 [0.5; 1.3] (23)	$0.60 [0.6; 0.8] (6)	$2.50 [1.1; 3.6] (143)	$2.80 [2.8; 2.8] (1)
ACT that is both WHO PQ and nationally approved	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (2)	$0.00 -	$0.40 [0.4; 0.4] (11)	$0.00 -	$0.00 -	$0.00 -	$1.60 [1.6; 1.8] (7)	$0.00 -	$0.80 [0.8; 0.8] (2)	$0.80 [0.6; 0.8] (2)	$0.80 [0.8; 1.6] (11)	$0.00 -
ACT that is WHO PQ but not nationally approved	$0.00 -	$0.00 -	$3.50 [2.5; 3.5] (103)	$0.00 -	$0.80 [0.4; 0.8] (21)	$0.00 -	$2.50 [1.8; 3.5] (132)	$0.00 -	$0.00 -	$2.50 [2.5; 3.8] (4)	$3.00 [2.4; 3.8] (103)	$0.00 -	$0.70 [0.5; 2.1] (21)	$0.50 [0.5; 1.6] (4)	$2.70 [1.3; 3.6] (132)	$2.80 [2.8; 2.8] (1)

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LAGOS	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)	Median USD [IQR] (N)
ACT that is nationally approved but not WHO PQ	$0.00	$0.60	$1.30	$0.00	$0.90	$0.90	$1.10	$0.00	$0.40	$1.10	$1.30	$0.00	$0.80	$0.90	$1.00	$1.30
	-	[0.6; 1.3] (42)	[0.7; 1.9] (1229)	-	[0.6; 1.6] (1352)	[0.9; 0.9] (77)	[0.6; 1.7] (2704)	-	[0.4; 0.4] (4)	[0.6; 2] (42)	[0.8; 1.9] (1229)	-	[0.6; 1.5] (1352)	[0.6; 1.3] (77)	[0.6; 1.6] (2704)	[1.3; 1.3] (1)
ACT not nationally approved or WHO PQ	$0.00	$0.30	$0.90	$0.00	$0.80	$0.40	$0.90	$0.00	$1.10	$1.30	$0.90	$0.00	$0.80	$0.90	$0.80	$0.40
	-	[0.3; 0.6] (14)	[0.8; 1.3] (854)	-	[0.6; 1.1] (631)	[0.4; 0.4] (62)	[0.6; 1.3] (1562)	-	[1.1; 1.1] (1)	[0.9; 1.6] (14)	[0.6; 1.2] (854)	-	[0.5; 0.9] (631)	[0.6; 1.1] (62)	[0.6; 1.1] (1562)	[0.4; 0.4] (1)
Non-artemisinins	$0.00	$0.40	$0.60	$0.00	$0.40	$0.30	$0.40	$0.00	$0.00	$8.80	$0.40	$0.00	$0.30	$0.40	$0.40	$0.00
	-	[0.3; 6.3] (16)	[0.3; 8.8] (179)	-	[0.3; 6.3] (304)	[0.3; 0.3] (27)	[0.3; 8.8] (526)	-	-	[0.3; 18.9] (16)	[0.3; 7.6] (179)	-	[0.3; 0.5] (304)	[0.3; 1] (27)	[0.3; 1.6] (526)	-
Oral quinine	$0.00	$4.00	$0.00	$0.00	$0.00	$0.00	$4.00	$0.00	$0.00	$0.00	$1.60	$0.00	$2.70	$0.00	$1.60	$0.00
	-	[4; 4] (1)	-	-	-	-	[4; 4] (10)	-	-	-	[1.3; 1.9] (8)	-	[2.7; 2.7] (1)	-	[1.3; 2.4] (10)	-
Chloroquine	$0.00	$0.40	$0.40	$0.00	$0.30	$0.40	$0.40	$0.00	$0.00	$0.00	$0.30	$0.00	$0.40	$0.40	$0.30	$0.00
	-	[0.4; 0.4] (1)	[0.3; 0.6] (33)	-	[0.3; 0.4] (69)	[0.4; 0.4] (6)	[0.3; 0.4] (109)	-	-	-	[0.2; 0.4] (33)	-	[0.3; 0.4] (69)	[0.4; 0.5] (6)	[0.3; 0.4] (109)	-
Sulfadoxine pyrimethamine	$0.00	$6.30	$8.80	$0.00	$0.40	$0.30	$6.30	$0.00	$0.00	$8.80	$0.40	$0.00	$0.30	$0.40	$0.30	$0.00
	-	[0.3; 6.3] (14)	[0.3; 9.5] (135)	-	[0.3; 7.6] (217)	[0.3; 0.3] (18)	[0.3; 8.8] (384)	-	-	[0.3; 18.9] (14)	[0.3; 8.8] (135)	-	[0.3; 5.1] (217)	[0.3; 7.6] (18)	[0.3; 6.3] (384)	-
Sulfadoxine pyrimethamine amodiaquine	$0.00	$0.00	$0.00	$0.00	$0.60	$0.00	$0.60	$0.00	$0.00	$0.00	$6.80	$0.00	$0.90	$0.70	$0.90	$0.00
	-	-	-	-	[0.6; 0.9] (17)	-	[0.6; 0.9] (22)	-	-	-	[6.1; 7.6] (2)	-	[0.7; 0.9] (17)	[0.7; 1] (3)	[0.7; 1.1] (22)	-
Other non-artemisinins	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$6.90	$0.00	$0.00	$0.00	$6.90	$0.00
	-	-	-	-	-	-	-	-	-	-	[6.9; 6.9] (1)	-	-	-	[6.9; 6.9] (1)	-
Oral artemisinin monotherapy	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lagos Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 34; N Antimalarial products audited but missing price information = 652

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5.2 Sales price of pre-packaged ACTs to customer

Table 32. Median retail price of selected pre-packaged therapy in NGN

ABIA

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦0 -	₦1,200 [1200; 1500] (2)	₦0 -	₦900 [700; 1200] (4)	₦0 -	₦1,200 [900; 1200] (6)	₦0 -
QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦0 -	₦500 [500; 500] (1)	₦0 -	₦1,000 [700; 1000] (4)	₦0 -	₦700 [700; 1000] (5)	₦0 -
QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦0 -	₦2,300 [2300; 2300] (1)	₦0 -	₦1,200 [600; 1200] (4)	₦0 -	₦1,200 [650; 2300] (5)	₦0 -
QA AL pack size 4 (for an adult 35+ kgs)	₦0 -	₦0 -	₦850 [750; 1500] (6)	₦0 -	₦800 [700; 1350] (6)	₦0 -	₦800 [750; 1350] (12)	₦0 -
Non-QA AL pack size 1 (for an infant 5-15kg)	₦600 [600; 600] (2)	₦750 [600; 1400] (4)	₦900 [750; 1200] (39)	₦0 -	₦800 [700; 1200] (320)	₦2,750 [500; 5000] (2)	₦800 [700; 1200] (367)	₦800 [600; 1000] (9)
Non-QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦0 -	₦1,000 [700; 1200] (20)	₦0 -	₦800 [600; 1000] (219)	₦0 -	₦800 [600; 1000] (239)	₦800 [500; 1000] (13)
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦0 -	₦1,200 [1000; 1800] (12)	₦0 -	₦1,000 [700; 1000] (82)	₦750 [700; 750] (2)	₦1,000 [800; 1200] (96)	₦800 [800; 800] (1)
Non-QA AL pack size 4 (for an adult 35+ kgs)	₦1,500 [800; 2000] (17)	₦900 [800; 1200] (14)	₦1,200 [900; 2000] (311)	₦1,300 [1200; 2500] (3)	₦1,000 [900; 1500] (3054)	₦900 [800; 1500] (21)	₦1,000 [900; 1500] (3420)	₦800 [600; 1500] (126)

Abia Footnote: products with missing price data for the following: QA AL pack size 1:2; QA AL pack size 2:0; QA AL pack size 3:0; QA AL pack size 4:0; non-QA AL pack size 1:10; non-QA AL pack size 2:11; non-QA AL pack size 3:3; non-QA AL pack size 4:83; mRDT:4

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	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦200 [200; 1700] (5)	₦1,600 [300; 2100] (26)	₦0 -	₦200 [150; 200] (84)	₦200 [150; 200] (4)	₦200 [200; 250] (119)	₦200 [200; 200] (1)
QA AL pack size 2 (for a child 15-25 kgs)	₦1,500 [1500; 1500] (1)	₦500 [500; 500] (2)	₦2,500 [2100; 2500] (18)	₦0 -	₦300 [250; 350] (38)	₦400 [400; 400] (4)	₦300 [250; 500] (63)	₦250 [250; 250] (1)
QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦500 [500; 500] (1)	₦500 [500; 500] (10)	₦0 -	₦500 [400; 500] (78)	₦400 [400; 400] (1)	₦500 [400; 500] (90)	₦400 [400; 400] (1)
QA AL pack size 4 (for an adult 35+ kgs)	₦0 -	₦3,500 [3500; 3500] (2)	₦4,000 [3400; 4000] (27)	₦0 -	₦700 [600; 2500] (28)	₦0 -	₦3,000 [600; 4000] (57)	₦0 -
Non-QA AL pack size 1 (for an infant 5-15kg)	₦1,800	₦500	₦1,000	₦0	₦500	₦2,000	₦700	₦2,500

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	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
	[1000; 1800] (3)	[500; 500] (1)	[600; 1500] (27)	-	[500; 700] (80)	[500; 2000] (2)	[500; 1000] (113)	[2500; 2500] (1)
Non-QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦1,000 [400; 3000] (3)	₦2,100 [2100; 2100] (9)	₦300 [300; 300] (1)	₦350 [250; 500] (42)	₦250 [250; 350] (2)	₦350 [250; 700] (57)	₦350 [350; 350] (1)
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦600 [600; 800] (2)	₦600 [500; 1600] (7)	₦0 -	₦500 [400; 700] (18)	₦400 [400; 400] (1)	₦500 [400; 700] (28)	₦0 -
Non-QA AL pack size 4 (for an adult 35+ kgs)	₦1,200 [700; 2000] (12)	₦1,000 [700; 1500] (65)	₦1,200 [1000; 2800] (357)	₦0 -	₦800 [600; 1500] (1648)	₦800 [700; 2500] (36)	₦800 [600; 2200] (2118)	₦800 [500; 2300] (38)

Kano Footnote: products with missing price data for the following: QA AL pack size 1:4; QA AL pack size 2:1; QA AL pack size 3:1; QA AL pack size 4:2; non-QA AL pack size 1:0; non-QA AL pack size 2:0; non-QA AL pack size 3:0; non-QA AL pack size 4:33; mRDT:60

LAGOS

	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦3,500 [3500; 3500] (1)	₦2,000 [1500; 2300] (15)	₦0 -	₦500 [500; 500] (1)	₦0 -	₦2,000 [1600; 2500] (17)	₦0 -
QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦0 -	₦2,000 [1100; 3800] (10)	₦0 -	₦600 [600; 600] (1)	₦500 [500; 600] (2)	₦2,000 [1100; 3800] (13)	₦0 -
QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦4,500 [4500; 4500] (1)	₦4,350 [3500; 4600] (8)	₦0 -	₦500 [500; 600] (5)	₦0 -	₦4,350 [1400; 4500] (14)	₦0 -
QA AL pack size 4 (for an adult 35+ kgs)	₦0 -	₦4,800 [4800; 4800] (2)	₦4,500 [3500; 5200] (62)	₦0 -	₦4,000 [2800; 4000] (3)	₦0 -	₦4,500 [3500; 5060] (67)	₦0 -
Non-QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦1,000 [1000; 1000] (1)	₦900 [600; 1700] (127)	₦0 -	₦700 [500; 1200] (189)	₦800 [500; 1500] (10)	₦700 [500; 1500] (327)	₦0 -
Non-QA AL pack size 2 (for a child 15-25 kgs)	₦870 [870; 870] (2)	₦500 [500; 500] (2)	₦1,000 [700; 1500] (81)	₦0 -	₦700 [500; 800] (145)	₦500 [450; 700] (6)	₦700 [500; 1000] (236)	₦0 -
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦600 [600; 600] (2)	₦1,000 [700; 1500] (83)	₦0 -	₦800 [600; 1000] (143)	₦800 [700; 800] (10)	₦800 [700; 1100] (238)	₦0 -
Non-QA AL pack size 4 (for an adult 35+ kgs)	₦700 [700; 700] (1)	₦1,500 [1200; 2500] (26)	₦2,000 [1100; 2800] (920)	₦0 -	₦1,200 [800; 2300] (791)	₦1,200 [800; 1500] (64)	₦1,500 [1000; 2500] (1802)	₦2,000 [2000; 2000] (2)

Lagos Footnote: products with missing price data for the following: QA AL pack size 1:2; QA AL pack size 2:2; QA AL pack size 3:0; QA AL pack size 4:6; non-QA AL pack size 1:29; non-QA AL pack size 2:18; non-QA AL pack size 3:20; non-QA AL pack size 4:123; mRDT:27

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Table 33. Median retail price of selected pre-packaged therapy in USD

ABIA

Percentage of screened outlets stocking:	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.00 -	$0.80 [0.8; 0.9] (2)	$0.00 -	$0.60 [0.4; 0.8] (4)	$0.00 -	$0.80 [0.6; 0.8] (6)	$0.00 -
QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.00 -	$0.60 [0.4; 0.6] (4)	$0.00 -	$0.40 [0.4; 0.6] (5)	$0.00 -
QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.00 -	$1.50 [1.5; 1.5] (1)	$0.00 -	$0.80 [0.4; 0.8] (4)	$0.00 -	$0.80 [0.4; 1.5] (5)	$0.00 -
QA AL pack size 4 (for an adult 35+ kgs)	$0.00 -	$0.00 -	$0.50 [0.5; 0.9] (6)	$0.00 -	$0.50 [0.4; 0.9] (6)	$0.00 -	$0.50 [0.5; 0.9] (12)	$0.00 -
Non-QA AL pack size 1 (for an infant 5-15kg)	$0.40 [0.4; 0.4] (2)	$0.50 [0.4; 0.9] (4)	$0.60 [0.5; 0.8] (39)	$0.00 -	$0.50 [0.4; 0.8] (320)	$1.70 [0.3; 3.2] (2)	$0.50 [0.4; 0.8] (367)	$0.50 [0.4; 0.6] (9)
Non-QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.00 -	$0.60 [0.4; 0.8] (20)	$0.00 -	$0.50 [0.4; 0.6] (219)	$0.00 -	$0.50 [0.4; 0.6] (239)	$0.50 [0.3; 0.6] (13)
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.00 -	$0.80 [0.6; 1.1] (12)	$0.00 -	$0.60 [0.4; 0.6] (82)	$0.50 [0.4; 0.5] (2)	$0.60 [0.5; 0.8] (96)	$0.50 [0.5; 0.5] (1)
Non-QA AL pack size 4 (for an adult 35+ kgs)	$0.90 [0.5; 1.3] (17)	$0.60 [0.5; 0.8] (14)	$0.80 [0.6; 1.3] (311)	$0.80 [0.8; 1.6] (3)	$0.60 [0.6; 0.9] (3054)	$0.60 [0.5; 0.9] (21)	$0.60 [0.6; 0.9] (3420)	$0.50 [0.4; 0.9] (126)

Abia Footnote: products with missing price data for the following: QA AL pack size 1:2; QA AL pack size 2:0; QA AL pack size 3:0; QA AL pack size 4:0; non-QA AL pack size 1:10; non-QA AL pack size 2:11; non-QA AL pack size 3:3; non-QA AL pack size 4:83

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Percentage of screened outlets stocking:	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.10 [0.1; 1.1] (5)	$1.00 [0.2; 1.3] (26)	$0.00 -	$0.10 [0.1; 0.1] (84)	$0.10 [0.1; 0.1] (4)	$0.10 [0.1; 0.2] (119)	$0.10 [0.1; 0.1] (1)
QA AL pack size 2 (for a child 15-25 kgs)	$0.90 [0.9; 0.9] (1)	$0.30 [0.3; 0.3] (2)	$1.60 [1.3; 1.6] (18)	$0.00 -	$0.20 [0.2; 0.2] (38)	$0.30 [0.3; 0.3] (4)	$0.20 [0.2; 0.3] (63)	$0.20 [0.2; 0.2] (1)
QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.30 [0.3; 0.3] (10)	$0.00 -	$0.30 [0.3; 0.3] (78)	$0.30 [0.3; 0.3] (1)	$0.30 [0.3; 0.3] (90)	$0.30 [0.3; 0.3] (1)
QA AL pack size 4 (for an adult 35+ kgs)	$0.00 -	$2.20 [2.2; 2.2] (2)	$2.50 [2.1; 2.5] (27)	$0.00 -	$0.40 [0.4; 1.6] (28)	$0.00 -	$1.90 [0.4; 2.5] (57)	$0.00 -
Non-QA AL pack size 1 (for an infant 5-15kg)	$1.10 [0.6; 1.1] (3)	$0.30 [0.3; 0.3] (1)	$0.60 [0.4; 0.9] (27)	$0.00 -	$0.30 [0.3; 0.4] (80)	$1.30 [0.3; 1.3] (2)	$0.40 [0.3; 0.6] (113)	$1.60 [1.6; 1.6] (1)
Non-QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.60 [0.3; 1.9] (3)	$1.30 [1.3; 1.3] (9)	$0.20 [0.2; 0.2] (1)	$0.20 [0.2; 0.3] (42)	$0.20 [0.2; 0.2] (2)	$0.20 [0.2; 0.4] (57)	$0.20 [0.2; 0.2] (1)
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.40 [0.4; 0.5] (2)	$0.40 [0.3; 1] (7)	$0.00 -	$0.30 [0.3; 0.4] (18)	$0.30 [0.3; 0.3] (1)	$0.30 [0.3; 0.4] (28)	$0.00 -
Non-QA AL pack size 4 (for an adult 35+ kgs)	$0.80 [0.4; 1.3] (12)	$0.60 [0.4; 0.9] (65)	$0.80 [0.6; 1.8] (357)	$0.00 -	$0.50 [0.4; 0.9] (1648)	$0.50 [0.4; 1.6] (36)	$0.50 [0.4; 1.4] (2118)	$0.50 [0.3; 1.5] (38)

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Percentage of screened outlets stocking:	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)

Kano Footnote: products with missing price data for the following: QA AL pack size 1:4; QA AL pack size 2:1; QA AL pack size 3:1; QA AL pack size 4:2; non-QA AL pack size 1:0; non-QA AL pack size 2:0; non-QA AL pack size 3:0; non-QA AL pack size 4:33

LAGOS

Percentage of screened outlets stocking:	Not-for-profit facility Median USD [IQR](N)	For-profit facility Median USD [IQR](N)	Pharmacy Median USD [IQR](N)	Laboratory Median USD [IQR](N)	PPMV Median USD [IQR](N)	Informal Median USD [IQR](N)	Retail total Median USD [IQR](N)	Wholesale Median USD [IQR](N)
QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$2.20 [2.2; 2.2] (1)	$1.30 [0.9; 1.5] (15)	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.00 -	$1.30 [1; 1.6] (17)	$0.00 -
QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.00 -	$1.30 [0.7; 2.4] (10)	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.30 [0.3; 0.4] (2)	$1.30 [0.7; 2.4] (13)	$0.00 -
QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$2.80 [2.8; 2.8] (1)	$2.70 [2.2; 2.9] (8)	$0.00 -	$0.30 [0.3; 0.4] (5)	$0.00 -	$2.70 [0.9; 2.8] (14)	$0.00 -
QA AL pack size 4 (for an adult 35+ kgs)	$0.00 -	$3.00 [3; 3] (2)	$2.80 [2.2; 3.3] (62)	$0.00 -	$2.50 [1.8; 2.5] (3)	$0.00 -	$2.80 [2.2; 3.2] (67)	$0.00 -
Non-QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.60 [0.6; 0.6] (1)	$0.60 [0.4; 1.1] (127)	$0.00 -	$0.40 [0.3; 0.8] (189)	$0.50 [0.3; 0.9] (10)	$0.40 [0.3; 0.9] (327)	$0.00 -
Non-QA AL pack size 2 (for a child 15-25 kgs)	$0.50 [0.5; 0.5] (2)	$0.30 [0.3; 0.3] (2)	$0.60 [0.4; 0.9] (81)	$0.00 -	$0.40 [0.3; 0.5] (145)	$0.30 [0.3; 0.4] (6)	$0.40 [0.3; 0.6] (236)	$0.00 -
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.40 [0.4; 0.4] (2)	$0.60 [0.4; 0.9] (83)	$0.00 -	$0.50 [0.4; 0.6] (143)	$0.50 [0.4; 0.5] (10)	$0.50 [0.4; 0.7] (238)	$0.00 -
Non-QA AL pack size 4 (for an adult 35+ kgs)	$0.40 [0.4; 0.4] (1)	$0.90 [0.8; 1.6] (26)	$1.30 [0.7; 1.8] (920)	$0.00 -	$0.80 [0.5; 1.5] (791)	$0.80 [0.5; 0.9] (64)	$0.90 [0.6; 1.6] (1802)	$1.30 [1.3; 1.3] (2)

Lagos Footnote: products with missing price data for the following: QA AL pack size 1:2; QA AL pack size 2:2; QA AL pack size 3:0; QA AL pack size 4:6; non-QA AL pack size 1:29; non-QA AL pack size 2:18; non-QA AL pack size 3:20; non-QA AL pack size 4:123

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Table 34. Median retail price of selected pre-packaged therapy in NGN, disaggregated by rural and urban areas

ABIA	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦0 -	₦0 -	₦0 -	₦700 [700; 700] (1)	₦0 -	₦700 [700; 700] (1)	₦0 -	₦0 -	₦0 -	₦1,200 [1200; 1500] (2)	₦0 -	₦1,200 [900; 1200] (3)	₦0 -	₦1,200 [1200; 1200] (5)	₦0 -
QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦0 -	₦0 -	₦0 -	₦1,000 [700; 1000] (3)	₦0 -	₦1,000 [700; 1000] (3)	₦0 -	₦0 -	₦0 -	₦500 [500; 500] (1)	₦0 -	₦450 [450; 450] (1)	₦0 -	₦500 [450; 500] (2)	₦0 -
QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦0 -	₦0 -	₦0 -	₦1,200 [1200; 1200] (1)	₦0 -	₦1,200 [1200; 1200] (1)	₦0 -	₦0 -	₦0 -	₦2,300 [2300; 2300] (1)	₦0 -	₦600 [600; 650] (3)	₦0 -	₦650 [600; 2300] (4)	₦0 -
QA AL pack size 4 (for an adult 35+ kgs)	₦0 -	₦0 -	₦0 -	₦0 -	₦800 [600; 800] (3)	₦0 -	₦800 [600; 800] (3)	₦0 -	₦0 -	₦0 -	₦850 [750; 1500] (6)	₦0 -	₦1,350 [1350; 2500] (3)	₦0 -	₦1,200 [750; 1500] (9)	₦0 -
Non-QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦0 -	₦0 -	₦0 -	₦850 [800; 1200] (80)	₦0 -	₦850 [800; 1200] (80)	₦2,000 [2000; 2000] (1)	₦600 [600; 600] (2)	₦750 [600; 1400] (4)	₦900 [750; 1200] (39)	₦0 -	₦800 [600; 1200] (240)	₦2,750 [500; 5000] (2)	₦800 [600; 1200] (287)	₦700 [600; 800] (8)
Non-QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦0 -	₦1,200 [1200; 1200] (2)	₦0 -	₦800 [700; 1000] (55)	₦0 -	₦800 [700; 1000] (57)	₦1,000 [950; 1000] (4)	₦0 -	₦0 -	₦1,000 [700; 1200] (18)	₦0 -	₦800 [500; 1000] (164)	₦0 -	₦800 [550; 1000] (182)	₦700 [500; 800] (9)
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦0 -	₦0 -	₦0 -	₦1,000 [1000; 1200] (32)	₦750 [700; 750] (2)	₦1,000 [900; 1200] (34)	₦0 -	₦0 -	₦0 -	₦1,200 [1000; 1800] (12)	₦0 -	₦750 [700; 1000] (50)	₦0 -	₦800 [700; 1200] (62)	₦800 [800; 800] (1)
Non-QA AL pack size 4 (for an adult 35+ kgs)	₦1,500 [1500; 1500] (2)	₦800 [700; 800] (3)	₦1,500 [1000; 2500] (18)	₦0 -	₦1,000 [900; 1500] (746)	₦1,200 [800; 1500] (12)	₦1,000 [900; 1500] (781)	₦975 [600; 1500] (26)	₦1,500 [800; 2000] (15)	₦1,200 [900; 1800] (11)	₦1,200 [900; 2000] (293)	₦1,300 [1200; 2500] (3)	₦1,000 [800; 1500] (2308)	₦800 [800; 900] (9)	₦1,000 [800; 1500] (2639)	₦800 [600; 1500] (100)

Abia Footnote: products with missing price data for the following: QA AL pack size 1:2; QA AL pack size 2:0; QA AL pack size 3:0; QA AL pack size 4:0; non-QA AL pack size 1:10; non-QA AL pack size 2:11; non-QA AL pack size 3:3; non-QA AL pack size 4:83; mRDT:4

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KANO	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦0 -	₦300 [300; 300] (1)	₦0 -	₦200 [150; 200] (19)	₦0 -	₦200 [150; 200] (20)	₦0 -	₦0 -	₦200 [200; 1700] (5)	₦2,000 [1600; 2400] (25)	₦0 -	₦200 [170; 300] (65)	₦200 [150; 200] (4)	₦300 [200; 2000] (99)	₦200 [200; 200] (1)
QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦0 -	₦0 -	₦0 -	₦250 [200; 300] (9)	₦400 [400; 400] (1)	₦250 [200; 350] (10)	₦0 -	₦1,500 [1500; 1500] (1)	₦500 [500; 500] (2)	₦2,500 [2100; 2500] (18)	₦0 -	₦350 [300; 500] (29)	₦2,000 [500; 2000] (3)	₦500 [300; 2100] (53)	₦250 [250; 250] (1)
QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦0 -	₦500 [500; 500] (1)	₦0 -	₦500 [400; 550] (19)	₦0 -	₦500 [400; 500] (20)	₦0 -	₦0 -	₦500 [500; 500] (1)	₦4,100 [500; 4200] (9)	₦0 -	₦400 [400; 500] (59)	₦400 [400; 400] (1)	₦450 [400; 500] (70)	₦400 [400; 400] (1)
QA AL pack size 4 (for an adult 35+ kgs)	₦0 -	₦3,500 [3500; 3500] (1)	₦4,000 [4000; 4000] (1)	₦0 -	₦600 [600; 600] (2)	₦0 -	₦600 [600; 3500] (4)	₦0 -	₦0 -	₦4,000 [4000; 4000] (1)	₦3,700 [3000; 4000] (26)	₦0 -	₦2,000 [1000; 3500] (26)	₦0 -	₦3,250 [1500; 4000] (53)	₦0 -
Non-QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦0 -	₦1,000 [600; 1200] (7)	₦0 -	₦500 [500; 500] (4)	₦0 -	₦600 [500; 1000] (11)	₦2,500 [2500; 2500] (1)	₦1,800 [1000; 1800] (3)	₦500 [500; 500] (1)	₦1,500 [600; 2700] (20)	₦0 -	₦600 [500; 900] (76)	₦2,000 [500; 2000] (2)	₦700 [500; 1000] (102)	₦0 -
Non-QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦0 -	₦2,100 [2100; 2100] (1)	₦0 -	₦250 [250; 500] (7)	₦250 [250; 350] (2)	₦300 [250; 500] (10)	₦0 -	₦0 -	₦1,000 [400; 3000] (3)	₦1,200 [1200; 1300] (8)	₦300 [300; 300] (1)	₦400 [350; 700] (35)	₦0 -	₦500 [350; 1000] (47)	₦350 [350; 350] (1)
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦0 -	₦0 -	₦0 -	₦400 [400; 600] (3)	₦400 [400; 400] (1)	₦400 [400; 400] (4)	₦0 -	₦0 -	₦600 [600; 800] (2)	₦600 [500; 1600] (7)	₦0 -	₦600 [500; 1300] (15)	₦0 -	₦600 [500; 1300] (24)	₦0 -
Non-QA AL pack size 4 (for an adult 35+ kgs)	₦700 [700; 700] (1)	₦700 [600; 1000] (5)	₦1,150 [1000; 2500] (38)	₦0 -	₦700 [600; 1500] (252)	₦1,800 [700; 2500] (9)	₦800 [600; 2000] (305)	₦800 [500; 2300] (13)	₦2,000 [1200; 2000] (11)	₦1,000 [800; 1500] (60)	₦2,000 [850; 2900] (319)	₦0 -	₦800 [650; 2000] (1396)	₦700 [500; 1500] (27)	₦1,000 [700; 2500] (1813)	₦600 [500; 2300] (25)

kano Footnote: products with missing price data for the following: QA AL pack size 1:4; QA AL pack size 2:1; QA AL pack size 3:1; QA AL pack size 4:2; non-QA AL pack size 1:0; non-QA AL pack size 2:0; non-QA AL pack size 3:0; non-QA AL pack size 4:33; mRDT:60

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LAGOS	Rural								Urban							
Median retail price of selected pre-packaged therapy	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦3,500 [3500; 3500] (1)	₦2,000 [1500; 2300] (15)	₦0 -	₦500 [500; 500] (1)	₦0 -	₦2,000 [1600; 2500] (17)	₦0 -
QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦2,000 [1100; 3800] (10)	₦0 -	₦600 [600; 600] (1)	₦500 [500; 600] (2)	₦2,000 [1100; 3800] (13)	₦0 -
QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦0 -	₦0 -	₦0 -	₦500 [500; 500] (1)	₦0 -	₦500 [500; 500] (1)	₦0 -	₦0 -	₦4,500 [4500; 4500] (1)	₦4,350 [3500; 4600] (8)	₦0 -	₦700 [600; 2500] (4)	₦0 -	₦4,350 [3500; 4500] (13)	₦0 -
QA AL pack size 4 (for an adult 35+ kgs)	₦0 -	₦0 -	₦5,200 [5000; 5200] (7)	₦0 -	₦2,800 [2800; 2800] (1)	₦0 -	₦5,200 [5000; 5200] (8)	₦0 -	₦0 -	₦4,800 [4800; 4800] (2)	₦4,500 [3500; 5000] (55)	₦0 -	₦4,000 [4000; 4500] (2)	₦0 -	₦4,500 [3500; 5000] (59)	₦0 -
Non-QA AL pack size 1 (for an infant 5-15kg)	₦0 -	₦0 -	₦500 [500; 1000] (18)	₦0 -	₦600 [500; 800] (33)	₦0 -	₦600 [500; 800] (51)	₦0 -	₦0 -	₦1,000 [1000; 1000] (1)	₦1,000 [600; 1700] (109)	₦0 -	₦700 [500; 1300] (156)	₦800 [500; 1500] (10)	₦800 [500; 1700] (276)	₦0 -
Non-QA AL pack size 2 (for a child 15-25 kgs)	₦0 -	₦1,000 [1000; 1000] (1)	₦1,000 [600; 1200] (16)	₦0 -	₦500 [500; 800] (24)	₦475 [450; 500] (2)	₦500 [500; 800] (43)	₦0 -	₦870 [870; 870] (2)	₦500 [500; 500] (1)	₦1,000 [700; 1500] (65)	₦0 -	₦700 [500; 800] (121)	₦700 [700; 800] (4)	₦700 [600; 1100] (193)	₦0 -
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	₦0 -	₦1,000 [1000; 1000] (1)	₦800 [60; 1300] (17)	₦0 -	₦800 [700; 1000] (22)	₦600 [600; 600] (1)	₦800 [700; 1000] (41)	₦0 -	₦0 -	₦600 [600; 600] (1)	₦1,000 [700; 1550] (66)	₦0 -	₦800 [600; 1000] (121)	₦800 [800; 800] (9)	₦800 [700; 1200] (197)	₦0 -
Non-QA AL pack size 4 (for an adult 35+ kgs)	₦0 -	₦700 [700; 1000] (5)	₦2,500 [1250; 2700] (160)	₦0 -	₦1,000 [800; 2000] (129)	₦0 -	₦1,400 [850; 2500] (294)	₦0 -	₦700 [700; 700] (1)	₦1,500 [1500; 3000] (21)	₦1,800 [1000; 2800] (760)	₦0 -	₦1,200 [800; 2300] (662)	₦1,200 [800; 1500] (64)	₦1,500 [1000; 2500] (1508)	₦2,000 [2000; 2000] (2)

Lagos Footnote: products with missing price data for the following: QA AL pack size 1:2; QA AL pack size 2:2; QA AL pack size 3:0; QA AL pack size 4:6; non-QA AL pack size 1:29; non-QA AL pack size 2:18; non-QA AL pack size 3:20; non-QA AL pack size 4:123; mRDT:27

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Table 35. Median retail price of selected pre-packaged therapy in USD, disaggregated by rural and urban areas

ABIA	Rural								Urban							
	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)
QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.00 -	$0.00 -	$0.00 -	$0.80 [0.8; 0.9] (2)	$0.00 -	$0.80 [0.6; 0.8] (3)	$0.00 -	$0.80 [0.8; 0.8] (5)	$0.00 -
QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.60 [0.4; 0.6] (3)	$0.00 -	$0.60 [0.4; 0.6] (3)	$0.00 -	$0.00 -	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.00 -	$0.30 [0.3; 0.3] (2)	$0.00 -
QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.80 [0.8; 0.8] (1)	$0.00 -	$0.80 [0.8; 0.8] (1)	$0.00 -	$0.00 -	$0.00 -	$1.50 [1.5; 1.5] (1)	$0.00 -	$0.40 [0.4; 0.4] (3)	$0.00 -	$0.40 [0.4; 1.5] (4)	$0.00 -
QA AL pack size 4 (for an adult 35+ kgs)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.50 [0.4; 0.5] (3)	$0.00 -	$0.50 [0.4; 0.5] (3)	$0.00 -	$0.00 -	$0.00 -	$0.50 [0.5; 0.9] (6)	$0.00 -	$0.90 [0.9; 1.6] (3)	$0.00 -	$0.80 [0.5; 0.9] (9)	$0.00 -
Non-QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.50 [0.5; 0.8] (80)	$0.00 -	$0.50 [0.5; 0.8] (80)	$1.30 [1.3; 1.3] (1)	$0.40 [0.4; 0.4] (2)	$0.50 [0.4; 0.9] (4)	$0.60 [0.5; 0.8] (39)	$0.00 -	$0.50 [0.4; 0.8] (240)	$1.70 [0.3; 3.2] (2)	$0.50 [0.4; 0.8] (287)	$0.40 [0.4; 0.5] (8)
Non-QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.00 -	$0.80 [0.8; 0.8] (2)	$0.00 -	$0.50 [0.4; 0.6] (55)	$0.00 -	$0.50 [0.4; 0.6] (57)	$0.60 [0.6; 0.6] (4)	$0.00 -	$0.00 -	$0.60 [0.4; 0.8] (18)	$0.00 -	$0.50 [0.3; 0.6] (164)	$0.00 -	$0.50 [0.3; 0.6] (182)	$0.40 [0.3; 0.5] (9)
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.60 [0.6; 0.8] (32)	$0.50 [0.4; 0.5] (2)	$0.60 [0.6; 0.8] (34)	$0.00 -	$0.00 -	$0.00 -	$0.80 [0.6; 1.1] (12)	$0.00 -	$0.50 [0.4; 0.6] (50)	$0.00 -	$0.50 [0.4; 0.8] (62)	$0.50 [0.5; 0.5] (1)
Non-QA AL pack size 4 (for an adult 35+ kgs)	$0.90 [0.9; 0.9] (2)	$0.50 [0.4; 0.5] (3)	$0.90 [0.6; 1.6] (18)	$0.00 -	$0.60 [0.6; 0.9] (746)	$0.80 [0.5; 0.9] (12)	$0.60 [0.6; 0.9] (781)	$0.60 [0.4; 0.9] (26)	$0.90 [0.5; 1.3] (15)	$0.80 [0.6; 1.1] (11)	$0.80 [0.6; 1.3] (293)	$0.80 [0.8; 1.6] (3)	$0.60 [0.5; 0.9] (2308)	$0.50 [0.5; 0.6] (9)	$0.60 [0.5; 0.9] (2639)	$0.50 [0.4; 0.9] (100)

Abia Footnote: products with missing price data for the following: QA AL pack size 1:2; QA AL pack size 2:0; QA AL pack size 3:0; QA AL pack size 4:0; non-QA AL pack size 1:10; non-QA AL pack size 2:11; non-QA AL pack size 3:3; non-QA AL pack size 4:83

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KANO	Rural								Urban							
	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)
QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.00 -	$0.20 [0.2; 0.2] (1)	$0.00 -	$0.10 [0.1; 0.1] (19)	$0.00 -	$0.10 [0.1; 0.1] (20)	$0.00 -	$0.00 -	$0.10 [0.1; 1.1] (5)	$1.30 [1; 1.5] (25)	$0.00 -	$0.10 [0.1; 0.2] (65)	$0.10 [0.1; 0.1] (4)	$0.20 [0.1; 1.3] (99)	$0.10 [0.1; 0.1] (1)
QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.20 [0.1; 0.2] (9)	$0.30 [0.3; 0.3] (1)	$0.20 [0.1; 0.2] (10)	$0.00 -	$0.90 [0.9; 0.9] (1)	$0.30 [0.3; 0.3] (2)	$1.60 [1.3; 1.6] (18)	$0.00 -	$0.20 [0.2; 0.3] (29)	$1.30 [0.3; 1.3] (3)	$0.30 [0.2; 1.3] (53)	$0.20 [0.2; 0.2] (1)
QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.00 -	$0.30 [0.3; 0.3] (19)	$0.00 -	$0.30 [0.3; 0.3] (20)	$0.00 -	$0.00 -	$0.30 [0.3; 0.3] (1)	$2.60 [0.3; 2.7] (9)	$0.00 -	$0.30 [0.3; 0.3] (59)	$0.30 [0.3; 0.3] (1)	$0.30 [0.3; 0.3] (70)	$0.30 [0.3; 0.3] (1)
QA AL pack size 4 (for an adult 35+ kgs)	$0.00 -	$2.20 [2.2; 2.2] (1)	$2.50 [2.5; 2.5] (1)	$0.00 -	$0.40 [0.4; 0.4] (2)	$0.00 -	$0.40 [0.4; 2.2] (4)	$0.00 -	$0.00 -	$2.50 [2.5; 2.5] (1)	$2.30 [1.9; 2.5] (26)	$0.00 -	$1.30 [0.6; 2.2] (26)	$0.00 -	$2.10 [0.9; 2.5] (53)	$0.00 -
Non-QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.00 -	$0.60 [0.4; 0.8] (7)	$0.00 -	$0.30 [0.3; 0.3] (4)	$0.00 -	$0.40 [0.3; 0.6] (11)	$1.60 [1.6; 1.6] (1)	$1.10 [0.6; 1.1] (3)	$0.30 [0.3; 0.3] (1)	$0.90 [0.4; 1.7] (20)	$0.00 -	$0.40 [0.3; 0.6] (76)	$1.30 [0.3; 1.3] (2)	$0.40 [0.3; 0.6] (102)	$0.00 -
Non-QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.00 -	$1.30 [1.3; 1.3] (1)	$0.00 -	$0.20 [0.2; 0.3] (7)	$0.20 [0.2; 0.2] (2)	$0.20 [0.2; 0.3] (10)	$0.00 -	$0.00 -	$0.60 [0.3; 1.9] (3)	$0.80 [0.8; 0.8] (8)	$0.20 [0.2; 0.2] (1)	$0.30 [0.2; 0.4] (35)	$0.00 -	$0.30 [0.2; 0.6] (47)	$0.20 [0.2; 0.2] (1)
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.30 [0.3; 0.4] (3)	$0.30 [0.3; 0.3] (1)	$0.30 [0.3; 0.3] (4)	$0.00 -	$0.00 -	$0.40 [0.4; 0.5] (2)	$0.40 [0.3; 1] (7)	$0.00 -	$0.40 [0.3; 0.8] (15)	$0.00 -	$0.40 [0.3; 0.8] (24)	$0.00 -
Non-QA AL pack size 4 (for an adult 35+ kgs)	$0.40 [0.4; 0.4] (1)	$0.40 [0.4; 0.6] (5)	$0.70 [0.6; 1.6] (38)	$0.00 -	$0.40 [0.4; 0.9] (252)	$1.10 [0.4; 1.6] (9)	$0.50 [0.4; 1.3] (305)	$0.50 [0.3; 1.5] (13)	$1.30 [0.8; 1.3] (11)	$0.60 [0.5; 0.9] (60)	$1.30 [0.5; 1.8] (319)	$0.00 -	$0.50 [0.4; 1.3] (1396)	$0.40 [0.3; 0.9] (27)	$0.60 [0.4; 1.6] (1813)	$0.40 [0.3; 1.5] (25)

Kano Footnote: products with missing price data for the following: QA AL pack size 1:4; QA AL pack size 2:1; QA AL pack size 3:1; QA AL pack size 4:2; non-QA AL pack size 1:0; non-QA AL pack size 2:0; non-QA AL pack size 3:0; non-QA AL pack size 4:33

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LAGOS	Rural								Urban							
	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)	Not-for-profit facility Median USD [IQR] (N)	For-profit facility Median USD [IQR] (N)	Pharmacy Median USD [IQR] (N)	Laboratory Median USD [IQR] (N)	PPMV Median USD [IQR] (N)	Informal Median USD [IQR] (N)	Retail total Median USD [IQR] (N)	Wholesale Median USD [IQR] (N)
QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$2.20 [2.2; 2.2] (1)	$1.30 [0.9; 1.5] (15)	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.00 -	$1.30 [1; 1.6] (17)	$0.00 -
QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$1.30 [0.7; 2.4] (10)	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.30 [0.3; 0.4] (2)	$1.30 [0.7; 2.4] (13)	$0.00 -
QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.00 -	$0.00 -	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.00 -	$0.30 [0.3; 0.3] (1)	$0.00 -	$0.00 -	$2.80 [2.8; 2.8] (1)	$2.70 [2.2; 2.9] (8)	$0.00 -	$0.40 [0.4; 1.6] (4)	$0.00 -	$2.70 [2.2; 2.8] (13)	$0.00 -
QA AL pack size 4 (for an adult 35+ kgs)	$0.00 -	$0.00 -	$3.30 [3.2; 3.3] (7)	$0.00 -	$1.80 [1.8; 1.8] (1)	$0.00 -	$3.30 [3.2; 3.3] (8)	$0.00 -	$0.00 -	$3.00 [3; 3] (2)	$2.80 [2.2; 3.2] (55)	$0.00 -	$2.50 [2.5; 2.8] (2)	$0.00 -	$2.80 [2.2; 3.2] (59)	$0.00 -
Non-QA AL pack size 1 (for an infant 5-15kg)	$0.00 -	$0.00 -	$0.30 [0.3; 0.6] (18)	$0.00 -	$0.40 [0.3; 0.5] (33)	$0.00 -	$0.40 [0.3; 0.5] (51)	$0.00 -	$0.00 -	$0.60 [0.6; 0.6] (1)	$0.60 [0.4; 1.1] (109)	$0.00 -	$0.40 [0.3; 0.8] (156)	$0.50 [0.3; 0.9] (10)	$0.50 [0.3; 1.1] (276)	$0.00 -
Non-QA AL pack size 2 (for a child 15-25 kgs)	$0.00 -	$0.60 [0.6; 0.6] (1)	$0.60 [0.4; 0.8] (16)	$0.00 -	$0.30 [0.3; 0.5] (24)	$0.30 [0.3; 0.3] (2)	$0.30 [0.3; 0.5] (43)	$0.00 -	$0.50 [0.5; 0.5] (2)	$0.30 [0.3; 0.3] (1)	$0.60 [0.4; 0.9] (65)	$0.00 -	$0.40 [0.3; 0.5] (121)	$0.40 [0.4; 0.5] (4)	$0.40 [0.4; 0.7] (193)	$0.00 -
Non-QA AL pack size 3 (for an adolescent 25-35 kgs)	$0.00 -	$0.60 [0.6; 0.6] (1)	$0.50 [0; 0.8] (17)	$0.00 -	$0.50 [0.4; 0.6] (22)	$0.40 [0.4; 0.4] (1)	$0.50 [0.4; 0.6] (41)	$0.00 -	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.60 [0.4; 1] (66)	$0.00 -	$0.50 [0.4; 0.6] (121)	$0.50 [0.5; 0.5] (9)	$0.50 [0.4; 0.8] (197)	$0.00 -
Non-QA AL pack size 4 (for an adult 35+ kgs)	$0.00 -	$0.40 [0.4; 0.6] (5)	$1.60 [0.8; 1.7] (160)	$0.00 -	$0.60 [0.5; 1.3] (129)	$0.00 -	$0.90 [0.5; 1.6] (294)	$0.00 -	$0.40 [0.4; 0.4] (1)	$0.90 [0.9; 1.9] (21)	$1.10 [0.6; 1.8] (760)	$0.00 -	$0.80 [0.5; 1.5] (662)	$0.80 [0.5; 0.9] (64)	$0.90 [0.6; 1.6] (1508)	$1.30 [1.3; 1.3] (2)

Lagos Footnote: products with missing price data for the following: QA AL pack size 1:2; QA AL pack size 2:2; QA AL pack size 3:0; QA AL pack size 4:6; non-QA AL pack size 1:29; non-QA AL pack size 2:18; non-QA AL pack size 3:20; non-QA AL pack size 4:123

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5.3 Sales price of malaria blood testing to customers

Table 36. Median retail price of blood testing to consumers including any consultation or service fees in Naira

ABIA

Percentage of screened outlets stocking:	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
Adult microscopy cost	₦2,000 [1500; 3000] (8)	₦3,000 [2500; 3500] (7)	₦1,500 [1500; 2000] (2)	₦1,500 [1500; 1500] (1)	₦0 [0; 0] (0)	₦0 [0; 0] (0)	₦2,500 [1500; 3000] (18)	₦0 [0; 0] (0)
Child microscopy cost	₦2,000 [1500; 3000] (8)	₦2,500 [1500; 3000] (7)	₦1,500 [1000; 1500] (2)	₦1,500 [1500; 1500] (1)	₦0 [0; 0] (0)	₦0 [0; 0] (0)	₦2,000 [1500; 3000] (18)	₦0 [0; 0] (0)
Adult RDT in-outlet test	₦1,000 [1000; 1000] (1)	₦1,500 [1500; 2500] (5)	₦1,500 [1000; 1500] (5)	₦0 [0; 0] (0)	₦500 [500; 1500] (3)	₦0 [0; 0] (0)	₦1,500 [1000; 1500] (14)	₦0 [0; 0] (0)
Adult RDT take away test cost	₦0 [0; 0] (0)	₦2,500 [2500; 2500] (2)	₦300 [300; 400] (26)	₦0 [0; 0] (1)	₦200 [200; 200] (36)	₦0 [0; 0] (4)	₦300 [300; 500] (69)	₦0 [0; 0] (2)

Abia Footnote: products with missing price data for adult microscopy:2; products with missing price data for child microscopy:2; products with missing price data for adult RDT within outlet:4; products with missing price data for adult RDT take away:12

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Percentage of screened outlets stocking:	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
Adult microscopy cost	₦500 [500; 1000] (8)	₦1,000 [500; 1000] (47)	₦1,000 [1000; 1000] (6)	₦500 [500; 1000] (58)	₦0 [0; 0] (0)	₦0 [0; 0] (0)	₦500 [500; 1000] (119)	₦0 [0; 0] (0)
Child microscopy cost	₦300 [300; 1000] (8)	₦1,000 [500; 1000] (48)	₦1,000 [500; 1000] (6)	₦500 [500; 1000] (58)	₦0 [0; 0] (0)	₦0 [0; 0] (0)	₦500 [500; 1000] (120)	₦0 [0; 0] (0)
Adult RDT in-outlet test	₦300 [300; 500] (5)	₦500 [300; 700] (51)	₦500 [500; 500] (48)	₦400 [200; 500] (24)	₦300 [200; 300] (373)	₦200 [200; 500] (9)	₦300 [200; 400] (510)	₦0 [0; 0] (0)
Adult RDT take away test cost	₦0 [0; 0] (0)	₦1,000 [1000; 1000] (2)	₦300 [25; 500] (26)	₦0 [0; 0] (1)	₦200 [150; 250] (36)	₦400 [400; 400] (4)	₦200 [170; 300] (69)	₦120 [100; 120] (2)

Kano Footnote: products with missing price data for adult microscopy:3; products with missing price data for child microscopy:2; products with missing price data for adult RDT within outlet:60; products with missing price data for adult RDT take away:520

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LAGOS

Percentage of screened outlets stocking:	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)	Median Naira [IQR](N)
Adult microscopy cost	₦2,000 [2000; 2000] (2)	₦2,000 [2000; 3500] (20)	₦0 [0; 0] (0)	₦2,000 [1500; 2000] (54)	₦0 [0; 0] (0)	₦0 [0; 0] (0)	₦2,000 [1500; 2000] (76)	₦0 [0; 0] (0)
Child microscopy cost	₦2,000 [2000; 2000] (2)	₦2,000 [2000; 3500] (20)	₦0 [0; 0] (0)	₦1,500 [1500; 2000] (54)	₦0 [0; 0] (0)	₦0 [0; 0] (0)	₦2,000 [1500; 2000] (76)	₦0 [0; 0] (0)
Adult RDT in-outlet test	₦1,000 [1000; 1000] (1)	₦2,000 [1500; 3500] (13)	₦2,500 [1000; 2500] (10)	₦2,000 [1500; 3000] (8)	₦1,000 [1000; 1000] (4)	₦0 [0; 0] (0)	₦2,000 [1000; 2700] (36)	₦0 [0; 0] (0)
Adult RDT take away test cost	₦0 [0; 0] (0)	₦0 [0; 0] (2)	₦2,950 [500; 3850] (26)	₦1,500 [1500; 1500] (1)	₦1,500 [1500; 1500] (36)	₦0 [0; 0] (4)	₦1,800 [1350; 3800] (69)	₦0 [0; 0] (2)

Lagos Footnote: products with missing price data for adult microscopy:5lagos Footnote: products with missing price data for child microscopy:5lagos Footnote: products with missing price data for adult RDT within outlet:27lagos Footnote: products with missing price data for adult RDT take away:48

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6 PURCHASE PRICE FROM SUPPLIERS

6.1 Purchase price of antimalaria AETDs from suppliers

Table 37. Median purchase price of adult equivalent treatment dose (AETD) for tablet formulation types from the outlet's supplier (e.g. wholesaler) in Naira

ABIA

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any antimalarial	₦1,000 [650; 1850] (29)	₦750 [500; 1500] (33)	₦1,000 [700; 1800] (586)	₦1,200 [1200; 1500] (7)	₦900 [650; 1350] (5336)	₦700 [450; 1000] (50)	₦900 [650; 1400] (6041)	₦800 [500; 1400] (172)
Any ACT	₦1,000 [650; 1850] (27)	₦750 [550; 1400] (26)	₦1,000 [700; 1700] (546)	₦1,200 [1200; 1500] (7)	₦900 [670; 1333.3] (5023)	₦700 [500; 1000] (46)	₦900 [670; 1400] (5675)	₦800 [500; 1500] (167)
Artemether lumefantrine	₦1,000 [650; 1950] (25)	₦750 [550; 1200] (23)	₦1,000 [700; 1800] (419)	₦1,200 [1200; 1500] (7)	₦850 [650; 1300] (4576)	₦700 [500; 975] (41)	₦900 [650; 1320] (5091)	₦750 [500; 1400] (151)
Artesunate amodiaquine	₦650 [650; 650] (2)	₦450 [450; 450] (1)	₦900 [600; 1000] (24)	₦0 -	₦860 [500; 1100] (80)	₦900 [900; 900] (1)	₦860 [500; 1100] (108)	₦500 [120; 1200] (3)
Artemisinin piperaquine	₦0 -	₦0 -	₦2,419 [1612.8; 3628.8] (12)	₦0 -	₦3,629 [3326.4; 4435.2] (14)	₦2,419 [2419.2; 2419.2] (1)	₦3,427 [2419.2; 4032] (27)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦1,400 [550; 1400] (2)	₦1,000 [750; 1400] (82)	₦0 -	₦1,200 [900; 1500] (347)	₦864 [500; 1000] (3)	₦1,150 [864; 1500] (434)	₦1,000 [1000; 1500] (13)
Arterolane piperaquine	₦0 -	₦0 -	₦900 [600; 1000] (8)	₦0 -	₦4,000 [3800; 5000] (5)	₦0 -	₦3,800 [900; 4000] (13)	₦0 -
Any other ACT	₦0 -	₦0 -	₦133 [133.3; 133.3] (1)	₦0 -	₦917 [916.7; 916.7] (1)	₦0 -	₦525 [133.3; 916.7] (2)	₦0 -
Nationally approved ACT	₦1,500 [650; 2000] (17)	₦600 [550; 1200] (20)	₦1,100 [700; 2000] (327)	₦1,200 [1200; 1500] (7)	₦900 [650; 1400] (3336)	₦800 [500; 1150] (31)	₦900 [650; 1450] (3738)	₦800 [500; 1500] (132)
QAACT (WHO PQ)	₦0 -	₦0 -	₦1,000 [800; 4000] (11)	₦0 -	₦750 [650; 1000] (73)	₦0 -	₦800 [650; 1000] (84)	₦0 -
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦0 -	₦0 -	₦1,950 [1950; 1950] (1)	₦0 -	₦1,950 [1950; 1950] (1)	₦0 -
ACT that is WHO PQ but not nationally approved	₦0 -	₦0 -	₦1,000 [800; 4000] (11)	₦0 -	₦750 [650; 1000] (72)	₦0 -	₦800 [650; 1000] (83)	₦0 -
ACT that is nationally approved but not WHO PQ	₦1,500 [650; 2000] (17)	₦600 [550; 1200] (19)	₦1,100 [716; 2000] (322)	₦1,200 [1200; 1500] (7)	₦900 [700; 1400] (3285)	₦800 [500; 1150] (31)	₦950 [700; 1500] (3681)	₦800 [500; 1500] (129)
ACT not nationally approved or WHO PQ	₦900 [650; 1500] (10)	₦1,000 [800; 1600] (7)	₦950 [700; 1350] (213)	₦0 -	₦850 [666.7; 1200] (1665)	₦700 [500; 864] (15)	₦850 [650; 1200] (1910)	₦900 [500; 1133.3] (38)
Non-artemisinins	₦3,000 [3000; 16000] (2)	₦500 [0.1; 10000] (7)	₦500 [350; 10000] (40)	₦0 -	₦400 [300; 7000] (313)	₦375 [325; 3200] (4)	₦420 [300; 7000] (366)	₦300 [20; 300] (5)
Oral quinine	₦0 -	₦4,200 [4200.2; 4200.2] (1)	₦1,540 [1540.1; 1540.1] (1)	₦0 -	₦2,520 [1260; 5670.2] (5)	₦0 -	₦1,540 [1260; 5670.2] (7)	₦0 -
Chloroquine	₦0 -	₦0 [0; 0] (1)	₦400 [340; 800] (5)	₦0 -	₦350 [140; 400] (10)	₦0 -	₦350 [140; 400] (16)	₦0 [0.2; 0.2] (1)

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ABIA

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Sulfadoxine pyrimethamine	₦16,000 [16000; 16000] (1)	₦10,000 [500; 10000] (2)	₦500 [350; 10000] (34)	₦0 -	₦450 [350; 8000] (262)	₦375 [325; 3200] (4)	₦450 [350; 8000] (303)	₦300 [20; 6000] (4)
Sulfadoxine pyrimethamine amodiaquine	₦3,000 [3000; 3000] (1)	₦6 [5.6; 2352.9] (2)	₦0 -	₦0 -	₦420 [270; 588.2] (22)	₦0 -	₦420 [264.7; 882.4] (25)	₦0 -
Other non-artemisinins	₦0 -	₦0 [0.1; 0.1] (1)	₦0 -	₦0 -	₦0 [0.1; 58.8] (14)	₦0 -	₦0 [0.1; 58.8] (15)	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Abia Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 11; N Antimalarial products audited but missing price information = 4519

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	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any antimalarial	₦600 [450; 2000] (8)	₦521 [360; 800] (121)	₦1,200 [620; 2000] (545)	₦370 [180; 560] (2)	₦500 [400; 720] (3198)	₦550 [416.7; 1300] (86)	₦500 [400; 1200] (3960)	₦500 [430; 1020] (80)
Any ACT	₦600 [450; 2000] (8)	₦600 [500; 1100] (104)	₦1,200 [700; 2000] (481)	₦560 [560; 560] (1)	₦500 [450; 800] (2655)	₦550 [500; 1300] (74)	₦550 [450; 1200] (3323)	₦550 [480; 1400] (67)
Artemether lumefantrine	₦600 [450; 2000] (8)	₦600 [500; 800] (85)	₦1,000 [500; 2050] (356)	₦560 [560; 560] (1)	₦500 [450; 700] (2387)	₦550 [480; 600] (63)	₦500 [450; 900] (2900)	₦550 [470; 2000] (55)
Artesunate amodiaquine	₦0 -	₦10 [10; 9600] (6)	₦1,200 [1200; 1400] (38)	₦0 -	₦700 [600; 1100] (39)	₦0 -	₦1,200 [750; 1200] (83)	₦1,000 [1000; 1000] (1)
Artemisinin piperaquine	₦0 -	₦0 -	₦6,451 [5040; 6451.2] (15)	₦0 -	₦4,435 [2822.4; 5040] (22)	₦5,846 [5846.4; 5846.4] (1)	₦5,040 [2822.4; 5846.4] (38)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦1,600 [1500; 1600] (13)	₦1,400 [1200; 1800] (69)	₦0 -	₦1,200 [600; 1500] (204)	₦1,300 [500; 1550] (10)	₦1,300 [800; 1500] (296)	₦500 [500; 1300] (11)
Arterolane piperaquine	₦0 -	₦0 -	₦3,300 [900; 3300] (3)	₦0 -	₦4,500 [3400; 4500] (2)	₦0 -	₦3,400 [3300; 4500] (5)	₦0 -
Any other ACT	₦0 -	₦0 -	₦0 -	₦0 -	₦633 [633.3; 633.3] (1)	₦0 -	₦633 [633.3; 633.3] (1)	₦0 -
Nationally approved ACT	₦450 [450; 2000] (6)	₦521 [400; 800] (70)	₦1,400 [700; 2200] (321)	₦560 [560; 560] (1)	₦500 [417.8; 720] (2132)	₦550 [350; 1580] (49)	₦500 [433.3; 1200] (2579)	₦500 [466.7; 1300] (55)
QAACT (WHO PQ)	₦600 [450; 600] (3)	₦600 [310; 3000] (12)	₦2,700 [466.7; 3400] (47)	₦0 -	₦450 [400; 533.3] (297)	₦600 [500; 600] (13)	₦467 [400; 600] (372)	₦467 [400; 466.7] (4)
ACT that is both WHO PQ and nationally approved	₦450 [450; 450] (1)	₦600 [320; 600] (4)	₦3,000 [3000; 3000] (6)	₦0 -	₦480 [380; 533.3] (127)	₦600 [500; 600] (8)	₦480 [400; 533.3] (146)	₦467 [400; 466.7] (2)
ACT that is WHO PQ but not nationally approved	₦600 [600; 600] (2)	₦600 [310; 3000] (8)	₦2,200 [466.7; 3500] (41)	₦0 -	₦450 [400; 592] (170)	₦600 [320; 600] (5)	₦467 [400; 600] (226)	₦417 [373.3; 460] (2)
	₦1,500	₦700	₦1,400	₦560	₦500	₦550	₦550	₦550

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KANO

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
ACT that is nationally approved but not WHO PQ	[450; 2000] (5)	[520.8; 1200] (61)	[700; 2200] (290)	[560; 560] (1)	[450; 1000] (1738)	[450; 2000] (38)	[450; 1500] (2133)	[480; 2000] (46)
ACT not nationally approved or WHO PQ	₦0 -	₦580 [500; 900] (31)	₦1,000 [620; 1500] (144)	₦0 -	₦500 [450; 900] (620)	₦600 [500; 600] (23)	₦600 [450; 1100] (818)	₦560 [460; 1300] (17)
Non-artemisinins	₦0 -	₦300 [300; 360] (17)	₦2,429 [200; 12000] (64)	₦180 [180; 180] (1)	₦200 [160; 260] (543)	₦250 [160; 1804.1] (12)	₦200 [170; 300] (637)	₦200 [170; 220] (13)
Oral quinine	₦0 -	₦2,949 [2948.9; 3024.1] (2)	₦2,429 [2100.1; 2428.5] (9)	₦0 -	₦2,100 [1890.1; 2730.1] (14)	₦1,804 [1804.1; 1804.1] (1)	₦2,100 [1890.1; 2730.1] (26)	₦2,520 [2520.1; 2520.1] (1)
Chloroquine	₦0 -	₦0 -	₦667 [300; 666.7] (4)	₦0 -	₦190 [114; 260] (69)	₦250 [250; 250] (1)	₦220 [150; 260] (74)	₦250 [250; 833.3] (2)
Sulfadoxine pyrimethamine	₦0 -	₦300 [300; 360] (14)	₦10,000 [200; 12000] (50)	₦180 [180; 180] (1)	₦200 [160; 250] (445)	₦170 [120; 11000] (10)	₦200 [170; 280] (520)	₦200 [170; 200] (10)
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 [0; 0] (1)	₦3,360 [3360; 3360] (1)	₦0 -	₦0 [0; 78.4] (15)	₦0 -	₦0 [0; 78.4] (17)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Kano Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 19; N Antimalarial products audited but missing price information = 4519

LAGOS

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Any antimalarial	₦1,110 [710; 1750] (4)	₦1,100 [550; 3000] (36)	₦900 [450; 1800] (747)	₦0 -	₦667 [500; 1333.3] (1643)	₦600 [500; 960] (113)	₦700 [500; 1500] (2543)	₦68 [68; 68] (1)
Any ACT	₦1,110 [710; 1750] (4)	₦1,100 [600; 3000] (30)	₦950 [500; 1800] (681)	₦0 -	₦700 [500; 1400] (1428)	₦600 [500; 800] (92)	₦750 [500; 1500] (2235)	₦68 [68; 68] (1)
Artemether lumefantrine	₦720 [700; 1500] (3)	₦1,100 [600; 3000] (28)	₦850 [500; 1850] (523)	₦0 -	₦700 [500; 1280] (1323)	₦600 [500; 800] (90)	₦700 [500; 1400] (1967)	₦68 [68; 68] (1)
Artesunate amodiaquine	₦2,000 [2000; 2000] (1)	₦0 [0; 0] (1)	₦925 [650; 1150] (47)	₦0 -	₦1,000 [850; 1100] (27)	₦0 -	₦925 [800; 1150] (76)	₦0 -
Artemisinin piperaquine	₦0 -	₦0 -	₦2,419 [215; 3225.6] (19)	₦0 -	₦3,226 [3225.6; 7660.8] (3)	₦0 -	₦2,621 [604.8; 3427.2] (22)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦60 [60; 60] (1)	₦1,200 [780; 1400] (87)	₦0 -	₦1,400 [1250; 1500] (75)	₦2,300 [1260; 2300] (2)	₦1,280 [1000; 1500] (165)	₦0 -

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LAGOS

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
Arterolane piperaquine	₦0 -	₦0 -	₦4,000 [3400; 4000] (5)	₦0 -	₦0 -	₦0 -	₦4,000 [3400; 4000] (5)	₦0 -
Any other ACT	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -
Nationally approved ACT	₦1,500 [700; 2000] (3)	₦600 [600; 1650] (19)	₦1,000 [420; 1900] (419)	₦0 -	₦650 [466.7; 1350] (1047)	₦600 [450; 666.7] (54)	₦667 [466.7; 1500] (1542)	₦0 -
QAACT (WHO PQ)	₦0 -	₦4,000 [3000; 12000] (3)	₦2,175 [1050; 3500] (24)	₦0 -	₦460 [400; 600] (20)	₦960 [900; 960] (6)	₦960 [460; 3000] (53)	₦0 -
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦1,050 [1050; 1050] (2)	₦0 -	₦524 [524.4; 524.4] (2)	₦600 [600; 900] (2)	₦800 [524.4; 1050] (6)	₦0 -
ACT that is WHO PQ but not nationally approved	₦0 -	₦4,000 [3000; 12000] (3)	₦2,500 [1500; 3600] (22)	₦0 -	₦450 [400; 600] (18)	₦960 [960; 960] (4)	₦960 [450; 3300] (47)	₦0 -
ACT that is nationally approved but not WHO PQ	₦1,500 [700; 2000] (3)	₦600 [600; 1650] (18)	₦1,100 [500; 1900] (394)	₦0 -	₦700 [500; 1500] (948)	₦600 [550; 700] (41)	₦733 [500; 1700] (1404)	₦0 -
ACT not nationally approved or WHO PQ	₦720 [720; 720] (1)	₦700 [550; 1100] (9)	₦850 [500; 1250] (263)	₦0 -	₦750 [600; 1250] (460)	₦500 [410; 800] (45)	₦750 [515; 1200] (778)	₦68 [68; 68] (1)
Non-artemisinins	₦0 -	₦500 [500; 8000] (6)	₦380 [333.3; 1680.1] (66)	₦0 -	₦350 [250; 550] (215)	₦3,000 [400; 3600] (21)	₦400 [300; 1600] (308)	₦0 -
Oral quinine	₦0 -	₦0 -	₦1,680 [1680.1; 10500.4] (6)	₦0 -	₦3,150 [3150.1; 3150.1] (1)	₦0 -	₦2,940 [1680.1; 3150.1] (7)	₦0 -
Chloroquine	₦0 -	₦0 -	₦350 [350; 390] (13)	₦0 -	₦400 [300; 550] (50)	₦450 [200; 500] (4)	₦380 [300; 450] (67)	₦0 -
Sulfadoxine pyrimethamine	₦0 -	₦500 [500; 8000] (6)	₦385 [300; 5600] (46)	₦0 -	₦350 [250; 600] (150)	₦3,000 [280; 5000] (15)	₦400 [260; 5000] (217)	₦0 -
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 -	₦9,240 [9240; 9240] (1)	₦0 -	₦300 [147.1; 600] (14)	₦400 [400; 400] (2)	₦400 [205.9; 441.2] (17)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Lagos Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 34; N Antimalarial products audited but missing price information = 4519

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Table 38. Median purchase price of adult equivalent treatment dose (AETD) for tablet formulation types from the outlet's supplier (e.g. wholesaler) in Naira, disaggregated by urban and rural areas

ABIA	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
Any antimalarial	₦1,500 [900; 1500] (29)	₦600 [550; 10000] (33)	₦950 [600; 1800] (586)	₦0 -	₦900 [680; 1300] (5336)	₦864 [600; 1150] (50)	₦900 [670; 1300] (6041)	₦580 [150; 1200] (172)	₦1,000 [650; 2000] (29)	₦800 [500; 1500] (33)	₦1,000 [700; 1800] (586)	₦1,200 [1200; 1500] (7)	₦900 [600; 1400] (5336)	₦500 [450; 700] (50)	₦900 [600; 1400] (6041)	₦800 [500; 1500] (172)
Any ACT	₦1,500 [900; 1500] (27)	₦600 [550; 600] (26)	₦950 [600; 1800] (546)	₦0 -	₦900 [700; 1300] (5023)	₦900 [600; 1150] (46)	₦900 [700; 1300] (5675)	₦600 [500; 1200] (167)	₦925 [650; 2000] (27)	₦1,000 [500; 1600] (26)	₦1,000 [700; 1612.8] (546)	₦1,200 [1200; 1500] (7)	₦900 [650; 1350] (5023)	₦500 [450; 700] (46)	₦900 [650; 1400] (5675)	₦800 [500; 1500] (167)
Artemether lumefantrine	₦1,500 [900; 1500] (25)	₦600 [550; 600] (23)	₦1,000 [600; 2100] (419)	₦0 -	₦900 [700; 1300] (4576)	₦900 [600; 1150] (41)	₦900 [700; 1300] (5091)	₦580 [325; 1100] (151)	₦1,000 [650; 2000] (25)	₦1,000 [500; 1600] (23)	₦1,000 [700; 1800] (419)	₦1,200 [1200; 1500] (7)	₦850 [650; 1300] (4576)	₦500 [450; 700] (41)	₦900 [650; 1350] (5091)	₦800 [500; 1500] (151)
Artesunate amodiaquine	₦0 -	₦0 -	₦500 [500; 800] (24)	₦0 -	₦900 [600; 1000] (80)	₦900 [900; 900] (1)	₦860 [500; 900] (108)	₦0 -	₦650 [650; 650] (2)	₦450 [450; 450] (1)	₦925 [600; 1000] (24)	₦0 -	₦800 [500; 1100] (80)	₦0 -	₦850 [550; 1100] (108)	₦500 [120; 1200] (3)
Artemisinin piperaquine	₦0 -	₦0 -	₦0 -	₦0 -	₦3,629 [3628.8; 4636.8] (14)	₦2,419 [2419.2; 2419.2] (1)	₦3,629 [3628.8; 4636.8] (27)	₦0 -	₦0 -	₦0 -	₦2,419 [1612.8; 3628.8] (12)	₦0 -	₦3,427 [3225.6; 4233.6] (14)	₦0 -	₦3,326 [2016; 4032] (27)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦0 -	₦1,500 [1000; 1800] (82)	₦0 -	₦1,100 [900; 1300] (347)	₦864 [864; 864] (3)	₦1,100 [900; 1400] (434)	₦1,500 [1500; 1500] (13)	₦0 -	₦1,400 [550; 1400] (2)	₦1,000 [700; 1312.5] (82)	₦0 -	₦1,200 [950; 1500] (347)	₦750 [500; 1000] (3)	₦1,200 [850; 1500] (434)	₦1,000 [900; 1700] (13)
Arterolane piperaquine	₦0 -	₦0 -	₦600 [600; 600] (8)	₦0 -	₦0 -	₦0 -	₦600 [600; 600] (13)	₦0 -	₦0 -	₦0 -	₦1,000 [700; 1000] (8)	₦0 -	₦4,000 [3800; 5000] (5)	₦0 -	₦3,800 [1000; 4100] (13)	₦0 -
Any other ACT	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦133 [133.3; 133.3] (1)	₦0 -	₦917 [916.7; 916.7] (1)	₦0 -	₦525 [133.3; 916.7] (2)	₦0 -
Nationally approved ACT	₦1,500 [1500; 1500] (17)	₦600 [550; 600] (20)	₦1,000 [700; 2100] (327)	₦0 -	₦900 [700; 1400] (3336)	₦1,000 [700; 1200] (31)	₦900 [700; 1400] (3738)	₦560 [500; 1500] (132)	₦1,000 [650; 2000] (17)	₦1,000 [500; 1600] (20)	₦1,100 [700; 2000] (327)	₦1,200 [1200; 1500] (7)	₦900 [650; 1500] (3336)	₦500 [450; 675] (31)	₦980 [650; 1500] (3738)	₦800 [500; 1500] (132)
Stocks QAACT (WHO PQ)	₦0 -	₦0 -	₦800 [800; 800] (11)	₦0 -	₦700 [650; 1000] (73)	₦0 -	₦700 [650; 1000] (84)	₦0 -	₦0 -	₦0 -	₦1,000 [766.7; 4000] (11)	₦0 -	₦750 [650; 900] (73)	₦0 -	₦800 [650; 1000] (84)	₦0 -
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦1,950 [1950; 1950] (1)	₦0 -	₦1,950 [1950; 1950] (1)	₦0 -
ACT that is WHO PQ but not nationally approved	₦0 -	₦0 -	₦800 [800; 800] (11)	₦0 -	₦700 [650; 1000] (72)	₦0 -	₦700 [650; 1000] (83)	₦0 -	₦0 -	₦0 -	₦1,000 [766.7; 4000] (11)	₦0 -	₦750 [650; 900] (72)	₦0 -	₦800 [650; 1000] (83)	₦0 -
ACT that is nationally approved but not WHO PQ	₦1,500 [1500; 1500] (17)	₦600 [550; 600] (19)	₦1,000 [700; 2100] (322)	₦0 -	₦900 [700; 1400] (3285)	₦1,000 [700; 1200] (31)	₦900 [700; 1400] (3681)	₦580 [500; 1500] (129)	₦1,000 [650; 2000] (17)	₦1,000 [500; 1400] (19)	₦1,100 [750; 2000] (322)	₦1,200 [1200; 1500] (7)	₦950 [650; 1500] (3285)	₦500 [450; 675] (31)	₦1,000 [650; 1500] (3681)	₦800 [500; 1500] (129)
ACT not nationally approved or WHO PQ	₦1,500 [900; 1500] (10)	₦0 -	₦1,000 [600; 1500] (213)	₦0 -	₦900 [700; 1275] (1665)	₦700 [600; 864] (15)	₦900 [700; 1275] (1910)	₦800 [83.3; 1000] (38)	₦650 [650; 1000] (10)	₦1,000 [800; 1600] (7)	₦950 [700; 1333.3] (213)	₦0 -	₦850 [650; 1200] (1665)	₦613 [315; 887.5] (15)	₦850 [650; 1200] (1910)	₦967 [500; 1700] (38)

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ABIA

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
Non-artemisinins	₦0 -	₦10,000 [10000; 10000] (7)	₦350 [350; 350] (40)	₦0 -	₦400 [300; 950] (313)	₦375 [325; 3200] (4)	₦400 [300; 950] (366)	₦0 [0.2; 0.2] (5)	₦3,000 [3000; 16000] (2)	₦6 [0.1; 500] (7)	₦500 [350; 10000] (40)	₦0 -	₦400 [300; 7000] (313)	₦0 -	₦450 [300; 7000] (366)	₦300 [20; 6000] (5)
Oral quinine	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦4,200 [4200.2; 4200.2] (1)	₦1,540 [1540.1; 1540.1] (1)	₦0 -	₦2,520 [1260; 5670.2] (5)	₦0 -	₦1,540 [1260; 5670.2] (7)	₦0 -
Chloroquine	₦0 -	₦0 -	₦0 -	₦0 -	₦500 [0.1; 500] (10)	₦0 -	₦500 [0.1; 500] (16)	₦0 [0.2; 0.2] (1)	₦0 -	₦0 [0; 0] (1)	₦400 [340; 800] (5)	₦0 -	₦350 [250; 400] (10)	₦0 -	₦350 [250; 400] (16)	₦0 -
Sulfadoxine pyrimethamine	₦0 -	₦10,000 [10000; 10000] (2)	₦350 [350; 350] (34)	₦0 -	₦400 [300; 5000] (262)	₦375 [325; 3200] (4)	₦400 [320; 6000] (303)	₦0 -	₦16,000 [16000; 16000] (1)	₦500 [500; 500] (2)	₦500 [350; 10000] (34)	₦0 -	₦450 [350; 8000] (262)	₦0 -	₦450 [350; 8000] (303)	₦300 [20; 6000] (4)
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 -	₦0 -	₦0 -	₦270 [270; 588.2] (22)	₦0 -	₦270 [270; 588.2] (25)	₦0 -	₦3,000 [3000; 3000] (1)	₦6 [5.6; 2352.9] (2)	₦0 -	₦0 -	₦420 [176.5; 480] (22)	₦0 -	₦420 [96; 900] (25)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 [0.1; 0.1] (1)	₦0 -	₦0 -	₦0 [0.1; 58.8] (14)	₦0 -	₦0 [0.1; 58.8] (15)	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Abia Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 11; N Antimalarial products audited but missing price information = 4519

KANO

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
Any antimalarial	₦525 [450; 600] (8)	₦400 [360; 520.8] (121)	₦1,200 [666.7; 2000] (545)	₦0 -	₦473 [380; 600] (3198)	₦550 [400; 1550] (86)	₦500 [400; 1000] (3960)	₦500 [380; 1000] (80)	₦2,000 [1500; 2600] (8)	₦800 [490; 1500] (121)	₦1,400 [600; 2400] (545)	₦370 [180; 560] (2)	₦533 [420; 1100] (3198)	₦500 [440; 850] (86)	₦565 [450; 1350] (3960)	₦500 [450; 1300] (80)
Any ACT	₦525 [450; 600] (8)	₦500 [400; 520.8] (104)	₦1,200 [700; 1900] (481)	₦0 -	₦500 [450; 687.5] (2655)	₦600 [500; 1550] (74)	₦500 [450; 1100] (3323)	₦550 [500; 2000] (67)	₦2,000 [1500; 2600] (8)	₦800 [600; 1500] (104)	₦1,500 [700; 2300] (481)	₦560 [560; 560] (1)	₦590 [460; 1200] (2655)	₦550 [450; 850] (74)	₦600 [470; 1500] (3323)	₦500 [450; 1300] (67)
Artemether lumefantrine	₦525 [450; 600] (8)	₦500 [400; 520.8] (85)	₦900 [500; 2000] (356)	₦0 -	₦500 [433.3; 600] (2387)	₦550 [500; 600] (63)	₦500 [450; 720] (2900)	₦600 [500; 2000] (55)	₦2,000 [1500; 2600] (8)	₦790 [580; 1100] (85)	₦1,650 [600; 2400] (356)	₦560 [560; 560] (1)	₦550 [450; 1000] (2387)	₦483 [450; 600] (63)	₦580 [460; 1300] (2900)	₦467 [450; 800] (55)
Artesunate amodiaquine	₦0 -	₦0 -	₦1,200 [1200; 1400] (38)	₦0 -	₦600 [450; 600] (39)	₦0 -	₦1,200 [750; 1200] (83)	₦0 -	₦0 -	₦10 [10; 9600] (6)	₦1,000 [720; 1200] (38)	₦0 -	₦1,100 [750; 1200] (39)	₦0 -	₦1,040 [720; 1200] (83)	₦1,000 [1000; 1000] (1)
Artemisinin piperaquine	₦0 -	₦0 -	₦6,451 [6451.2; 6451.2] (15)	₦0 -	₦5,040 [2822.4; 5040] (22)	₦5,846 [5846.4; 5846.4] (1)	₦5,040 [2822.4; 6451.2] (38)	₦0 -	₦0 -	₦0 -	₦4,234 [3729.6; 4636.8] (15)	₦0 -	₦3,568 [2620.8; 5040] (22)	₦0 -	₦4,032 [3024; 4636.8] (38)	₦0 -
Dihydroartemisinin piperaquine	₦0	₦0	₦1,500	₦0	₦984	₦1,300	₦1,300	₦500	₦0	₦1,600	₦1,400	₦0	₦1,200	₦1,300	₦1,200	₦1,086

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KANO	Rural								Urban							
	Not-for-profit facility Median Naira [IQR] (N)	For-profit facility Median Naira [IQR] (N)	Pharmacy Median Naira [IQR] (N)	Laboratory Median Naira [IQR] (N)	PPMV Median Naira [IQR] (N)	Informal Median Naira [IQR] (N)	Retail total Median Naira [IQR] (N)	Whole-sale Median Naira [IQR] (N)	Not-for-profit facility Median Naira [IQR] (N)	For-profit facility Median Naira [IQR] (N)	Pharmacy Median Naira [IQR] (N)	Laboratory Median Naira [IQR] (N)	PPMV Median Naira [IQR] (N)	Informal Median Naira [IQR] (N)	Retail total Median Naira [IQR] (N)	Whole-sale Median Naira [IQR] (N)
	- -	- -	[1200; 1800] (69)	- -	[500; 1500] (204)	[500; 1550] (10)	[750; 1550] (296)	[500; 500] (11)	- -	[1500; 1600] (13)	[1100; 1600] (69)	- -	[800; 1500] (204)	[850; 1350] (10)	[840; 1500] (296)	[1020; 1350] (11)
Arterolane piperaquine	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦3,300 [900; 3300] (3)	₦0 -	₦4,500 [3400; 4500] (2)	₦0 -	₦3,400 [3300; 4500] (5)	₦0 -
Any other ACT	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦633 [633.3; 633.3] (1)	₦0 -	₦633 [633.3; 633.3] (1)	₦0 -
Nationally approved ACT	₦450 [450; 450] (6)	₦400 [300; 520.8] (70)	₦1,400 [700; 2200] (321)	₦0 -	₦483 [400; 650] (2132)	₦550 [300; 2000] (49)	₦500 [417.8; 1200] (2579)	₦500 [480; 2000] (55)	₦2,000 [450; 2000] (6)	₦800 [650; 1700] (70)	₦1,600 [580; 2300] (321)	₦560 [560; 560] (1)	₦500 [450; 1000] (2132)	₦500 [450; 666.7] (49)	₦550 [450; 1350] (2579)	₦467 [450; 1085.7] (55)
QAACT (WHO PQ)	₦600 [600; 600] (3)	₦3,000 [3000; 3000] (12)	₦467 [466.7; 3000] (47)	₦0 -	₦467 [400; 533.3] (297)	₦600 [600; 600] (13)	₦467 [400; 560] (372)	₦0 -	₦450 [450; 2600] (3)	₦310 [310; 600] (12)	₦3,500 [1500; 5200] (47)	₦0 -	₦450 [333.3; 600] (297)	₦500 [350; 600] (13)	₦467 [350; 800] (372)	₦467 [400; 466.7] (4)
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦3,000 [3000; 3000] (6)	₦0 -	₦480 [400; 533.3] (127)	₦600 [600; 600] (8)	₦480 [400; 533.3] (146)	₦0 -	₦450 [450; 450] (1)	₦600 [320; 600] (4)	₦467 [400; 800] (6)	₦0 -	₦400 [333.3; 533.3] (127)	₦467 [350; 600] (8)	₦400 [333.3; 533.3] (146)	₦467 [400; 466.7] (2)
ACT that is WHO PQ but not nationally approved	₦600 [600; 600] (2)	₦3,000 [3000; 3000] (8)	₦467 [466.7; 466.7] (41)	₦0 -	₦433 [400; 533.3] (170)	₦0 -	₦450 [400; 560] (226)	₦0 -	₦2,600 [2600; 2600] (2)	₦310 [0; 310] (8)	₦3,600 [2500; 5466.7] (41)	₦0 -	₦467 [400; 780] (170)	₦600 [320; 600] (5)	₦580 [400; 3000] (226)	₦417 [373.3; 460] (2)
ACT that is nationally approved but not WHO PQ	₦450 [450; 450] (5)	₦521 [400; 520.8] (61)	₦1,400 [700; 2200] (290)	₦0 -	₦500 [450; 700] (1738)	₦550 [400; 2000] (38)	₦550 [450; 1400] (2133)	₦600 [500; 2000] (46)	₦2,000 [1750; 4000] (5)	₦800 [700; 1700] (61)	₦1,800 [600; 2300] (290)	₦560 [560; 560] (1)	₦600 [480; 1400] (1738)	₦550 [466.7; 900] (38)	₦600 [481.4; 2000] (2133)	₦470 [450; 1300] (46)
ACT not nationally approved or WHO PQ	₦0 -	₦500 [500; 500] (31)	₦1,000 [500; 1500] (144)	₦0 -	₦500 [416.7; 700] (620)	₦600 [500; 600] (23)	₦500 [450; 1000] (818)	₦500 [380; 600] (17)	₦0 -	₦800 [580; 1500] (31)	₦1,050 [700; 1500] (144)	₦0 -	₦650 [500; 1125] (620)	₦480 [440; 1350] (23)	₦750 [500; 1200] (818)	₦1,000 [560; 1350] (17)
Non-artemisinins	₦0 -	₦360 [300; 360] (17)	₦10,000 [666.7; 12000] (64)	₦0 -	₦190 [160; 250] (543)	₦250 [170; 1804.1] (12)	₦200 [160; 300] (637)	₦200 [170; 200] (13)	₦0 -	₦300 [200; 300] (17)	₦372 [200; 3780.1] (64)	₦180 [180; 180] (1)	₦220 [180; 333.3] (543)	₦170 [150; 250] (12)	₦230 [180; 350] (637)	₦250 [180; 280] (13)
Oral quinine	₦0 -	₦0 -	₦2,429 [2428.5; 2428.5] (9)	₦0 -	₦2,100 [1890.1; 2730.1] (14)	₦1,804 [1804.1; 1804.1] (1)	₦2,100 [1890.1; 2730.1] (26)	₦0 -	₦0 -	₦2,949 [2948.9; 3024.1] (2)	₦2,100 [1734.7; 3360.1] (9)	₦0 -	₦2,100 [2081.6; 2255.1] (14)	₦0 -	₦2,100 [1908.1; 2940.1] (26)	₦2,520 [2520.1; 2520.1] (1)
Chloroquine	₦0 -	₦0 -	₦667 [666.7; 666.7] (4)	₦0 -	₦150 [108; 200] (69)	₦250 [250; 250] (1)	₦200 [108; 250] (74)	₦0 -	₦0 -	₦0 -	₦300 [200; 300] (4)	₦0 -	₦250 [180; 300] (69)	₦0 -	₦250 [180; 300] (74)	₦250 [250; 833.3] (2)
Sulfadoxine pyrimethamine	₦0 -	₦360 [300; 360] (14)	₦12,000 [200; 12000] (50)	₦0 -	₦180 [160; 220] (445)	₦170 [120; 11000] (10)	₦190 [160; 250] (520)	₦200 [170; 200] (10)	₦0 -	₦300 [250; 300] (14)	₦300 [200; 8000] (50)	₦180 [180; 180] (1)	₦200 [180; 333.3] (445)	₦170 [150; 250] (10)	₦210 [180; 350] (520)	₦220 [150; 220] (10)
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 -	₦0 -	₦0 -	₦0 [0; 0] (15)	₦0 -	₦0 [0; 0] (17)	₦0 -	₦0 -	₦0 [0; 0] (1)	₦3,360 [3360; 3360] (1)	₦0 -	₦78 [0; 264.7] (15)	₦0 -	₦60 [0; 288] (17)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

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KANO

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)

Kano Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 19; N Antimalarial products audited but missing price information = 4519

LAGOS

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
Any antimalarial	₦0 -	₦550 [550; 550] (36)	₦700 [500; 1200] (747)	₦0 -	₦650 [500; 1050] (1643)	₦600 [600; 600] (113)	₦650 [500; 1080] (2543)	₦0 -	₦1,110 [710; 1750] (4)	₦1,100 [600; 3000] (36)	₦925 [450; 1800] (747)	₦0 -	₦667 [480; 1400] (1643)	₦600 [500; 960] (113)	₦700 [486.7; 1500] (2543)	₦68 [68; 68] (1)
Any ACT	₦0 -	₦550 [550; 550] (30)	₦750 [500; 1200] (681)	₦0 -	₦700 [500; 1080] (1428)	₦600 [600; 600] (92)	₦700 [500; 1100] (2235)	₦0 -	₦1,110 [710; 1750] (4)	₦1,100 [600; 3000] (30)	₦950 [500; 1800] (681)	₦0 -	₦700 [500; 1400] (1428)	₦600 [500; 800] (92)	₦773 [500; 1500] (2235)	₦68 [68; 68] (1)
Artemether lumefantrine	₦0 -	₦550 [550; 550] (28)	₦600 [500; 1200] (523)	₦0 -	₦667 [500; 1000] (1323)	₦600 [600; 600] (90)	₦650 [500; 1000] (1967)	₦0 -	₦720 [700; 1500] (3)	₦1,650 [650; 3000] (28)	₦850 [500; 1900] (523)	₦0 -	₦700 [500; 1333.3] (1323)	₦600 [500; 800] (90)	₦700 [500; 1500] (1967)	₦68 [68; 68] (1)
Artesunate amodiaquine	₦0 -	₦0 -	₦750 [433.3; 900] (47)	₦0 -	₦900 [850; 900] (27)	₦0 -	₦900 [850; 900] (76)	₦0 -	₦2,000 [2000; 2000] (1)	₦0 [0; 0] (1)	₦925 [650; 1150] (47)	₦0 -	₦1,100 [825; 1150] (27)	₦0 -	₦950 [775; 1200] (76)	₦0 -
Artemisinin piperaquine	₦0 -	₦0 -	₦2,419 [2016; 3729.6] (19)	₦0 -	₦0 -	₦0 -	₦2,419 [2016; 3729.6] (22)	₦0 -	₦0 -	₦0 -	₦2,419 [215; 3225.6] (19)	₦0 -	₦3,226 [3225.6; 7660.8] (3)	₦0 -	₦2,621 [604.8; 3427.2] (22)	₦0 -
Dihydroartemisinin piperaquine	₦0 -	₦0 -	₦1,000 [600; 1280] (87)	₦0 -	₦1,400 [1250; 1500] (75)	₦0 -	₦1,400 [1200; 1500] (165)	₦0 -	₦0 -	₦60 [60; 60] (1)	₦1,200 [800; 1400] (87)	₦0 -	₦1,450 [1250; 1600] (75)	₦2,300 [1260; 2300] (2)	₦1,250 [1000; 1500] (165)	₦0 -
Arterolane piperaquine	₦0 -	₦0 -	₦2,200 [2200; 2200] (5)	₦0 -	₦0 -	₦0 -	₦2,200 [2200; 2200] (5)	₦0 -	₦0 -	₦0 -	₦4,000 [3400; 4000] (5)	₦0 -	₦0 -	₦0 -	₦4,000 [3400; 4000] (5)	₦0 -
Any other ACT	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -
Nationally approved ACT	₦0 -	₦450 [450; 450] (19)	₦578 [500; 1040] (419)	₦0 -	₦600 [466.7; 1000] (1047)	₦600 [600; 600] (54)	₦600 [500; 1000] (1542)	₦0 -	₦1,500 [700; 2000] (3)	₦600 [600; 1650] (19)	₦1,011 [416.7; 1900] (419)	₦0 -	₦650 [450; 1400] (1047)	₦600 [450; 666.7] (54)	₦700 [450; 1600] (1542)	₦0 -
QAACT (WHO PQ)	₦0 -	₦0 -	₦1,500 [1500; 1500] (24)	₦0 -	₦524 [524.4; 524.4] (20)	₦0 -	₦524 [524.4; 1500] (53)	₦0 -	₦0 -	₦4,000 [3000; 12000] (3)	₦2,200 [1050; 3500] (24)	₦0 -	₦450 [400; 600] (20)	₦960 [900; 960] (6)	₦960 [450; 3250] (53)	₦0 -
ACT that is both WHO PQ and nationally approved	₦0 -	₦0 -	₦0 -	₦0 -	₦524 [524.4; 524.4] (2)	₦0 -	₦524 [524.4; 524.4] (6)	₦0 -	₦0 -	₦0 -	₦1,050 [1050; 1050] (2)	₦0 -	₦800 [800; 800] (2)	₦600 [600; 900] (2)	₦1,050 [1050; 1050] (6)	₦0 -
ACT that is WHO PQ but not nationally approved	₦0 -	₦0 -	₦1,500 [1500; 1500] (22)	₦0 -	₦2,000 [500; 2000] (18)	₦0 -	₦1,500 [1500; 2000] (47)	₦0 -	₦0 -	₦4,000 [3000; 12000] (3)	₦2,692 [1800; 3600] (22)	₦0 -	₦450 [400; 600] (18)	₦960 [960; 960] (4)	₦960 [450; 3300] (47)	₦0 -
ACT that is nationally approved but not WHO PQ	₦0 -	₦450 [450; 450] (18)	₦578 [500; 1200] (394)	₦0 -	₦667 [500; 1080] (948)	₦600 [600; 600] (41)	₦650 [500; 1080] (1404)	₦0 -	₦1,500 [700; 2000] (3)	₦600 [600; 1650] (18)	₦1,100 [500; 1900] (394)	₦0 -	₦700 [500; 1500] (948)	₦600 [550; 700] (41)	₦760 [500; 1800] (1404)	₦0 -

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LAGOS	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
ACT not nationally approved or WHO PQ	₦0 -	₦550 [550; 550] (9)	₦1,000 [750; 1200] (263)	₦0 -	₦700 [550; 1250] (460)	₦0 -	₦750 [550; 1200] (778)	₦0 -	₦720 [720; 720] (1)	₦1,100 [700; 1100] (9)	₦850 [500; 1250] (263)	₦0 -	₦800 [600; 1250] (460)	₦500 [410; 800] (45)	₦750 [500; 1200] (778)	₦68 [68; 68] (1)
Non-artemisinins	₦0 -	₦0 -	₦510 [300; 8000] (66)	₦0 -	₦250 [200; 550] (215)	₦300 [300; 300] (21)	₦280 [200; 588.2] (308)	₦0 -	₦0 -	₦500 [500; 8000] (6)	₦380 [333.3; 1260] (66)	₦0 -	₦353 [300; 550] (215)	₦3,000 [400; 3600] (21)	₦400 [300; 1680.1] (308)	₦0 -
Oral quinine	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦1,680 [1680.1; 10500.4] (6)	₦0 -	₦3,150 [3150.1; 3150.1] (1)	₦0 -	₦2,940 [1680.1; 3150.1] (7)	₦0 -
Chloroquine	₦0 -	₦0 -	₦300 [300; 300] (13)	₦0 -	₦350 [240; 550] (50)	₦0 -	₦350 [240; 550] (67)	₦0 -	₦0 -	₦0 -	₦380 [350; 390] (13)	₦0 -	₦400 [300; 530] (50)	₦450 [200; 500] (4)	₦390 [300; 450] (67)	₦0 -
Sulfadoxine pyrimethamine	₦0 -	₦0 -	₦8,000 [400; 10000] (46)	₦0 -	₦250 [200; 8000] (150)	₦300 [300; 300] (15)	₦280 [250; 8000] (217)	₦0 -	₦0 -	₦500 [500; 8000] (6)	₦350 [300; 5600] (46)	₦0 -	₦350 [300; 550] (150)	₦3,000 [280; 5000] (15)	₦400 [300; 5000] (217)	₦0 -
Sulfadoxine pyrimethamine amodiaquine	₦0 -	₦0 -	₦0 -	₦0 -	₦147 [147.1; 205.9] (14)	₦0 -	₦147 [147.1; 205.9] (17)	₦0 -	₦0 -	₦0 -	₦9,240 [9240; 9240] (1)	₦0 -	₦353 [300; 784.3] (14)	₦400 [400; 400] (2)	₦400 [352.9; 510] (17)	₦0 -
Other non-artemisinins	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -
Oral artemisinin monotherapy	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Lagos Footnote: Prices are per AETD of tablet formulations only. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 34; N Antimalarial products audited but missing price information = 4519

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6.2 Purchase price of malaria RDTs from suppliers

Table 39. Median purchase price of RDTs from the outlet's supplier (e.g. wholesaler) in Naira

ABIA

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
RDT	₦40 [40; 40] (1)	₦280 [192; 1000] (5)	₦80 [80; 150] (4)	₦0 -	₦500 [100; 500] (3)	₦0 -	₦192 [80; 384.6] (13)	₦0 -
WHO pre-qualified RDT	₦40 [40; 40] (1)	₦385 [384.6; 1000] (3)	₦80 [80; 150] (4)	₦0 -	₦500 [100; 500] (3)	₦0 -	₦150 [80; 384.6] (11)	₦0 -
Premier Medical Corporation	₦0 -	₦1,000 [1000; 1000] (1)	₦80 [80; 300] (2)	₦0 -	₦100 [100; 500] (2)	₦0 -	₦300 [80; 1000] (5)	₦0 -
Advy Chemical	₦0 -	₦280 [280; 280] (1)	₦48 [48; 150] (2)	₦0 -	₦2,000 [2000; 2000] (1)	₦0 -	₦150 [48; 280] (4)	₦0 -
Arkray Healthcare	₦40 [40; 40] (1)	₦385 [384.6; 384.6] (1)	₦0 -	₦0 -	₦0 -	₦0 -	₦385 [40; 384.6] (2)	₦0 -

Abia Footnote: Prices are per RDT. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 26; N RDT products audited but missing price information = 172

KANO

	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
RDT	₦160 [160; 160] (2)	₦120 [25; 160] (37)	₦100 [8; 140] (28)	₦120 [80; 160] (18)	₦120 [100; 160] (348)	₦100 [100; 142.8] (16)	₦120 [100; 160] (449)	₦160 [104; 160] (3)
WHO pre-qualified RDT	₦160 [160; 160] (2)	₦120 [25; 170] (36)	₦100 [8; 140] (27)	₦120 [100; 160] (16)	₦120 [100; 160] (328)	₦100 [100; 142.8] (16)	₦120 [100; 160] (425)	₦160 [104; 160] (3)
Premier Medical Corporation	₦160 [160; 160] (2)	₦160 [120; 200] (26)	₦8 [8; 140] (16)	₦120 [80; 160] (12)	₦120 [100; 152] (214)	₦100 [100; 142.8] (9)	₦120 [100; 152] (279)	₦160 [104; 160] (3)
Advy Chemical	₦0 -	₦80 [80; 100] (3)	₦100 [100; 160] (5)	₦120 [120; 200] (2)	₦180 [120; 300] (57)	₦12 [12; 96] (4)	₦160 [120; 300] (71)	₦0 -
Arkray Healthcare	₦0 -	₦25 [25; 100] (7)	₦248 [100; 250] (5)	₦120 [120; 120] (2)	₦120 [80; 150] (43)	₦112 [112; 112] (3)	₦120 [80; 150] (60)	₦0 -

Kano Footnote: Prices are per RDT. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 56; N RDT products audited but missing price information = 172

LAGOS

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	Not-for-profit facility Median Naira [IQR](N)	For-profit facility Median Naira [IQR](N)	Pharmacy Median Naira [IQR](N)	Laboratory Median Naira [IQR](N)	PPMV Median Naira [IQR](N)	Informal Median Naira [IQR](N)	Retail total Median Naira [IQR](N)	Wholesale Median Naira [IQR](N)
RDT	₦0 -	₦520 [520; 520] (2)	₦72 [72; 320] (6)	₦400 [399.9; 5800] (3)	₦180 [120; 300] (3)	₦0 -	₦300 [72; 520] (14)	₦0 -
WHO pre-qualified RDT	₦0 -	₦520 [520; 520] (2)	₦72 [72; 220] (4)	₦400 [399.9; 5800] (3)	₦180 [120; 300] (3)	₦0 -	₦220 [72; 399.9] (12)	₦0 -
Premier Medical Corporation	₦0 -	₦520 [520; 520] (2)	₦320 [220; 320] (2)	₦400 [399.9; 5800] (3)	₦300 [300; 300] (1)	₦0 -	₦400 [300; 520] (8)	₦0 -
Advy Chemical	₦0 -	₦0 -	₦72 [72; 72] (1)	₦0 -	₦120 [120; 120] (1)	₦0 -	₦72 [72; 72] (2)	₦0 -
Arkray Healthcare	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Lagos Footnote: Prices are per RDT. N outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview) = 112; N RDT products audited but missing price information = 172

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Table 40. Median wholesale RDT purchase price in Naira, by stratum and urban / rural

ABIA	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
RDT	₦0 -	₦1,000 [384.6; 1000] (5)	₦0 -	₦0 -	₦0 -	₦0 -	₦1,000 [384.6; 1000] (13)	₦0 -	₦40 [40; 40] (1)	₦192 [192; 200] (5)	₦80 [80; 150] (4)	₦0 -	₦500 [100; 500] (3)	₦0 -	₦150 [80; 200] (13)	₦0 -
WHO pre-qualified RDT	₦0 -	₦1,000 [384.6; 1000] (3)	₦0 -	₦0 -	₦0 -	₦0 -	₦1,000 [384.6; 1000] (11)	₦0 -	₦40 [40; 40] (1)	₦280 [280; 280] (3)	₦80 [80; 150] (4)	₦0 -	₦500 [100; 500] (3)	₦0 -	₦80 [80; 280] (11)	₦0 -
Premier Medical Corporation	₦0 -	₦1,000 [1000; 1000] (1)	₦0 -	₦0 -	₦0 -	₦0 -	₦1,000 [1000; 1000] (5)	₦0 -	₦0 -	₦0 -	₦80 [80; 300] (2)	₦0 -	₦100 [100; 500] (2)	₦0 -	₦80 [80; 300] (5)	₦0 -
Advy Chemical	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦280 [280; 280] (1)	₦48 [48; 150] (2)	₦0 -	₦2,000 [2000; 2000] (1)	₦0 -	₦150 [48; 280] (4)	₦0 -
Arkray Healthcare	₦0 -	₦385 [384.6; 384.6] (1)	₦0 -	₦0 -	₦0 -	₦0 -	₦385 [384.6; 384.6] (2)	₦0 -	₦40 [40; 40] (1)	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦40 [40; 40] (2)	₦0 -

Abia Footnote: Prices are per RDT; N RDT products audited but missing price information = 15

KANO	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
RDT	₦160 [160; 160] (2)	₦25 [25; 120] (37)	₦8 [8; 140] (28)	₦120 [80; 160] (18)	₦120 [100; 160] (348)	₦100 [100; 142.8] (16)	₦120 [100; 160] (449)	₦160 [160; 160] (3)	₦120 [120; 120] (2)	₦148 [120; 170] (37)	₦120 [53.3; 180] (28)	₦140 [120; 160] (18)	₦140 [100; 160] (348)	₦96 [96; 116] (16)	₦120 [100; 160] (449)	₦104 [60; 104] (3)
WHO pre-qualified RDT	₦160 [160; 160] (2)	₦25 [25; 120] (36)	₦8 [8; 140] (27)	₦120 [80; 160] (16)	₦120 [100; 160] (328)	₦100 [100; 142.8] (16)	₦120 [100; 160] (425)	₦160 [160; 160] (3)	₦120 [120; 120] (2)	₦148 [120; 200] (36)	₦100 [53.3; 150] (27)	₦120 [100; 160] (16)	₦140 [100; 160] (328)	₦96 [96; 116] (16)	₦120 [100; 160] (425)	₦104 [60; 104] (3)
Premier Medical Corporation	₦160 [160; 160] (2)	₦200 [120; 200] (26)	₦8 [8; 140] (16)	₦120 [80; 160] (12)	₦120 [100; 152] (214)	₦100 [100; 142.8] (9)	₦120 [100; 152] (279)	₦160 [160; 160] (3)	₦120 [120; 120] (2)	₦148 [120; 200] (26)	₦53 [0; 120] (16)	₦140 [120; 160] (12)	₦140 [100; 160] (214)	₦120 [0; 160] (9)	₦120 [100; 160] (279)	₦104 [60; 104] (3)
Advy Chemical	₦0 -	₦0 -	₦0 -	₦0 -	₦200 [120; 300] (57)	₦12 [12; 12] (4)	₦200 [120; 300] (71)	₦0 -	₦0 -	₦80 [80; 100] (3)	₦100 [100; 160] (5)	₦120 [120; 200] (2)	₦140 [100; 180] (57)	₦96 [96; 96] (4)	₦120 [100; 180] (71)	₦0 -
Arkray Healthcare	₦0 -	₦25 [25; 25] (7)	₦0 -	₦120 [120; 120] (2)	₦120 [80; 150] (43)	₦0 -	₦120 [80; 150] (60)	₦0 -	₦0 -	₦150 [140; 200] (7)	₦248 [100; 250] (5)	₦100 [100; 100] (2)	₦100 [92; 160] (43)	₦112 [112; 112] (3)	₦120 [100; 160] (60)	₦0 -

Kano Footnote: Prices are per RDT=; N RDT products audited but missing price information = 28

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LAGOS	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Whole-sale
	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)	Median Naira [IQR] (N)
RDT	₦0 -	₦320 [320; 320] (2)	₦550 [550; 550] (6)	₦5,800 [5800; 5800] (3)	₦120 [120; 120] (3)	₦0 -	₦550 [120; 5800] (14)	₦0 -	₦0 -	₦520 [520; 520] (2)	₦72 [72; 320] (6)	₦400 [399.9; 399.9] (3)	₦300 [180; 300] (3)	₦0 -	₦300 [72; 399.9] (14)	₦0 -
WHO pre-qualified RDT	₦0 -	₦320 [320; 320] (2)	₦550 [550; 550] (4)	₦5,800 [5800; 5800] (3)	₦120 [120; 120] (3)	₦0 -	₦550 [120; 5800] (12)	₦0 -	₦0 -	₦520 [520; 520] (2)	₦72 [72; 220] (4)	₦400 [399.9; 399.9] (3)	₦300 [180; 300] (3)	₦0 -	₦220 [72; 399.9] (12)	₦0 -
Premier Medical Corporation	₦0 -	₦320 [320; 320] (2)	₦0 -	₦5,800 [5800; 5800] (3)	₦0 -	₦0 -	₦5,800 [5800; 5800] (8)	₦0 -	₦0 -	₦520 [520; 520] (2)	₦320 [220; 320] (2)	₦400 [399.9; 399.9] (3)	₦300 [300; 300] (1)	₦0 -	₦320 [300; 399.9] (8)	₦0 -
Advy Chemical	₦0 -	₦0 -	₦0 -	₦0 -	₦120 [120; 120] (1)	₦0 -	₦120 [120; 120] (2)	₦0 -	₦0 -	₦0 -	₦72 [72; 72] (1)	₦0 -	₦0 -	₦0 -	₦72 [72; 72] (2)	₦0 -
Arkray Healthcare	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -	₦0 -

Lagos Footnote: Prices are per RDT=; N RDT products audited but missing price information = 42

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7 STOCKOUTS

7.1 Stockouts of malaria commodities

Table 41. Proportion of outlets reporting stockouts of key antimalarial types and RDTs on the day of survey

ABIA Outlets that stock antimalarials and reported current stock out(s) of antimalarials:	Not-for-profit facility % [95% CI] N=15	For-profit facility % [95% CI] N=16	Pharmacy % [95% CI] N=52	Laboratory % [95% CI] N=2	PPMV % [95% CI] N=1312	Informal % [95% CI] N=11	Retail total % [95% CI] N=1408	Wholesale % [95% CI] N=29
Stocked out of ACTs	0 -	0 -	0 -	0 -	0.2 [0; 1.6]	0 -	0.2 [0; 1.5]	0 -
Stocked out of AL	4.2 [0.6; 24.2]	0 -	0 -	0 -	0.7 [0.3; 1.6]	0 -	0.7 [0.4; 1.5]	0 -
Stocked out of ASAQ	13.8 [3; 45.3]	12.8 [2; 50.9]	3.8 [2; 7.2]	37.2 [4.2; 89]	3.7 [2.8; 4.9]	0 -	3.9 [2.9; 5.2]	3.7 [2.2; 6]
Stocked out of DHAPPQ	25.8 [10.7; 50.1]	0 -	0 -	37.2 [4.2; 89]	2.5 [1.5; 4.1]	0 -	2.7 [1.7; 4.1]	3.7 [2.2; 6]
Stocked out of artemether	4.2 [0.6; 24.2]	8.3 [1.3; 39]	6.6 [2.9; 14.3]	0 -	9.5 [7.8; 11.5]	0 -	9.3 [7.7; 11.1]	11 [6.7; 17.7]
Stocked out of artesunate	0 -	7.2 [1.1; 35.4]	5.3 [2.2; 12.1]	0 -	2.8 [1.8; 4.1]	0 -	2.8 [1.9; 4.2]	7.4 [4.5; 11.9]
Stocked out of Chloroquine	0 -	7.2 [1.1; 35.4]	0 -	37.2 [4.2; 89]	3.2 [2; 5]	0 -	3.1 [2; 4.8]	0 -
Stocked out of Quinine	10.3 [1.5; 45.5]	0 -	1 [0.1; 7.5]	0 -	1 [0.6; 1.6]	0 -	1.1 [0.6; 1.9]	0 -
Stocked out of SP	21.5 [6.3; 52.8]	0 -	5 [2.3; 10.4]	37.2 [4.2; 89]	4.3 [3.2; 5.7]	0 -	4.5 [3.4; 5.9]	3.7 [2.2; 6]
Stocked out of RDTs	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -

Abia Footnote - N screened outlets with stockout data: Private not for profit=15; private not for profit=16; pharmacy=52; PPMV=1312; informal=11; labs = 2; wholesalers= 29. Outlets that met screening criteria for a full interview but did not complete the interview and have stockout data = 6; screened outlets with no AM stockout data = 14

KANO Outlets that stock antimalarials and reported current stock out(s) of antimalarials:	Not-for-profit facility % [95% CI] N=9	For-profit facility % [95% CI] N=84	Pharmacy % [95% CI] N=126	Laboratory % [95% CI] N=2	PPMV % [95% CI] N=1340	Informal % [95% CI] N=42	Retail total % [95% CI] N=1603	Wholesale % [95% CI] N=19
Stocked out of ACTs	27.7 [4.2; 76.8]	2.2 [0.8; 5.6]	0 -	0 -	12.6 [7.2; 21.2]	22.2 [8.8; 45.5]	12.3 [7.2; 20.2]	0 -
Stocked out of AL	0 -	3.4 [1.2; 9.4]	0 -	0 -	5.4 [3.7; 7.9]	0 -	4.8 [3.2; 6.9]	0 -
Stocked out of ASAQ	1.8 [0.2; 13.4]	3.1 [0.8; 11.8]	0.2 [0; 1.4]	0 -	4.3 [2.1; 8.5]	0 -	3.8 [1.9; 7.4]	2.1 [0.3; 13.5]

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KANO	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Retail total % [95% CI]	Wholesale % [95% CI]
Stocked out of DHAPPQ	1.8 [0.2; 13.4]	7.2 [2.7; 17.8]	0.2 [0; 1]	0 -	2.6 [1.6; 4.2]	0 -	2.4 [1.6; 3.7]	0 -
Stocked out of artemether	1.8 [0.2; 13.4]	7.2 [3; 16.4]	2.6 [0.9; 7.1]	42.9 [4.7; 91.9]	6.9 [3.7; 12.4]	10.1 [3.2; 28]	6.9 [4; 11.6]	1.2 [0.1; 8.5]
Stocked out of artesunate	2.9 [0.6; 13.8]	15.6 [8.8; 26.3]	3.2 [1.2; 8.3]	42.9 [4.7; 91.9]	17.3 [14.4; 20.6]	6.4 [1.2; 28.5]	15.8 [13.3; 18.7]	2.1 [0.3; 13.5]
Stocked out of Chloroquine	1.8 [0.2; 13.4]	9.7 [4.6; 19.2]	1.7 [0.5; 5.9]	0 -	8 [5.9; 10.8]	15.1 [5.1; 37.1]	8.1 [6.4; 10.2]	0 -
Stocked out of Quinine	1.8 [0.2; 13.4]	6 [2.4; 14.3]	1.4 [0.3; 5.7]	0 -	9.7 [7.2; 12.9]	5.8 [0.9; 29.6]	8.9 [6.6; 11.9]	0 -
Stocked out of SP	26.6 [4.4; 74]	10.8 [5.4; 20.3]	3.2 [1; 9.4]	0 -	17.2 [13.9; 21]	13.8 [4.8; 33.5]	16.1 [13; 19.8]	0 -
Stocked out of RDTs	41.8 [10.7; 81.1]	37.2 [16.7; 63.6]	23.5 [9.8; 46.5]	57.1 [8.1; 95.3]	32 [24.1; 41]	22.6 [3.2; 71.8]	31.8 [23.9; 41]	6.7 [1.2; 29.6]

Kano Footnote - N screened outlets with stockout data: Private not for profit=9; private not for profit=84; pharmacy=126; PPMV=1340; informal=42; labs = 2; wholesalers= 19. Outlets that met screening criteria for a full interview but did not complete the interview and have stockout data = 6; screened outlets with no AM stockout data = 114

LAGOS	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Retail total % [95% CI]	Wholesale % [95% CI]
Outlets that stock antimalarials and reported current stock out(s) of antimalarials:	N=3	N=72	N=310	N=0	N=486	N=55	N=926	N=3
Stocked out of ACTs	0 -	4.4 [0.7; 22.8]	0 -	0 -	1.7 [0.3; 10.3]	13.9 [6.1; 28.5]	2.5 [0.9; 6.8]	0 -
Stocked out of AL	0 -	14.9 [4.8; 37.9]	0 -	0 -	0.4 [0.1; 2.9]	7 [3.1; 14.7]	1.9 [0.9; 4]	0 -
Stocked out of ASAQ	0 -	0 -	0.2 [0; 0.8]	0 -	0.5 [0.1; 1.8]	0 -	0.3 [0.1; 0.9]	0 -
Stocked out of DHAPPQ	0 -	0 -	1.5 [0.3; 5.9]	0 -	0.3 [0.1; 1]	0 -	0.6 [0.2; 2.1]	0 -
Stocked out of artemether	0 -	0 -	1.5 [0.6; 4]	0 -	6.1 [2.7; 13]	7 [3.1; 14.7]	4.2 [1.8; 9.2]	0 -
Stocked out of artesunate	0 -	2.7 [0.5; 14.3]	4.8 [2.2; 10.4]	0 -	0.7 [0.3; 1.9]	7 [3.1; 14.7]	2.9 [1.6; 5]	0 -
Stocked out of Chloroquine	0 -	1.8 [0.5; 6.5]	2.3 [1; 5]	0 -	1 [0.3; 3.1]	0 -	1.4 [0.6; 3.1]	0 -
Stocked out of Quinine	0 -	0.7 [0.2; 3.1]	2.2 [0.9; 5.4]	0 -	0.1 [0; 0.4]	0 -	0.8 [0.3; 2.2]	0 -
Stocked out of SP	0 -	0.8 [0.2; 3.6]	0.7 [0.2; 2]	0 -	1.1 [0.4; 3]	0 -	0.8 [0.4; 1.8]	0 -
Stocked out of RDTs	0 -	1.5 [0.4; 6.4]	13.6 [5; 32]	0 -	0 -	0 -	6.6 [2.9; 14.5]	0 -

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LAGOS	Not-for-profit facility % [95% CI]	For-profit facility % [95% CI]	Pharmacy % [95% CI]	Laboratory % [95% CI]	PPMV % [95% CI]	Informal % [95% CI]	Retail total % [95% CI]	Wholesale % [95% CI]

Lagos Footnote - N screened outlets with stockout data: Private not for profit=3; private not for profit=72; pharmacy=310; PPMV=486; informal=55; labs = 0; wholesalers= 3. Outlets that met screening criteria for a full interview but did not complete the interview and have stockout data = 12; screened outlets with no AM stockout data = 122

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Table 42. Proportion of outlets reporting stockouts, disaggregated by urban and rural areas

ABIA

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
	N=2	N=2	N=6	N=0	N=334	N=5	N=349	N=5	N=13	N=14	N=46	N=2	N=978	N=6	N=1059	N=24
Stocked out of ACTs	0 -	0 -	0 -	0 -	0.7 [0.1; 4.3]	0 -	0.7 [0.1; 4.1]	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Stocked out of AL	0 -	0 -	0 -	0 -	0.9 [0.2; 3.9]	0 -	0.9 [0.2; 3.8]	0 -	5.4 [0.7; 30.1]	0 -	0 -	0 -	0.6 [0.3; 1.5]	0 -	0.7 [0.3; 1.4]	0 -
Stocked out of ASAQ	48 [6.3; 92.6]	60.6 [10.2; 95.4]	8.7 [1.4; 39.8]	0 -	5 [3.6; 7]	0 -	5.8 [4.1; 8]	0 -	4.5 [0.6; 26.2]	0 -	3.1 [1.6; 6]	37.2 [4.2; 89]	3 [2; 4.5]	0 -	3 [2; 4.5]	4.2 [3.2; 5.4]
Stocked out of DHAPPQ	0 -	0 -	0 -	0 -	3.3 [1.4; 7.7]	0 -	3.2 [1.3; 7.5]	0 -	32.8 [15.5; 56.4]	0 -	0 -	37.2 [4.2; 89]	2 [1.1; 3.6]	0 -	2.4 [1.5; 3.8]	4.2 [3.2; 5.4]
Stocked out of artemether	0 -	39.4 [4.6; 89.8]	10.7 [1.8; 44.3]	0 -	10.8 [7.3; 15.6]	0 -	10.8 [7.5; 15.3]	0 -	5.4 [0.7; 30.1]	0 -	6.1 [2.5; 14.1]	0 -	8.9 [7.2; 10.8]	0 -	8.5 [7; 10.3]	12.6 [9.7; 16.2]
Stocked out of artesunate	0 -	0 -	0 -	0 -	1.7 [0.8; 3.6]	0 -	1.6 [0.8; 3.5]	0 -	0 -	9.2 [1.4; 42.2]	6 [2.5; 13.9]	0 -	3.3 [2.1; 5.2]	0 -	3.4 [2.2; 5.3]	8.4 [6.5; 10.8]
Stocked out of Chloroquine	0 -	0 -	0 -	0 -	4.8 [2.7; 8.4]	0 -	4.6 [2.6; 8.2]	0 -	0 -	9.2 [1.4; 42.2]	0 -	37.2 [4.2; 89]	2.4 [1.3; 4.3]	0 -	2.4 [1.3; 4.3]	0 -
Stocked out of Quinine	48 [6.3; 92.6]	0 -	8.7 [1.4; 39.8]	0 -	0.9 [0.3; 2.4]	0 -	1.4 [0.5; 3.8]	0 -	0 -	0 -	0 -	0 -	1 [0.6; 1.8]	0 -	0.9 [0.5; 1.7]	0 -
Stocked out of SP	48 [6.3; 92.6]	0 -	0 -	0 -	5.9 [3.7; 9.5]	0 -	6.1 [3.9; 9.6]	0 -	14.2 [3; 46.7]	0 -	5.6 [2.8; 10.8]	37.2 [4.2; 89]	3.4 [2.5; 4.8]	0 -	3.7 [2.7; 5]	4.2 [3.2; 5.4]
Stocked out of RDTs	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -

KANO

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
	N=2	N=8	N=12	N=0	N=323	N=19	N=364	N=6	N=7	N=76	N=114	N=2	N=1017	N=23	N=1239	N=13
Stocked out of ACTs	52.8 [6.9; 94.4]	0 -	0 -	0 -	15.4 [8.5; 26.3]	22.6 [8.3; 48.6]	15.2 [8.6; 25.5]	0 -	0 -	3.6 [1.4; 8.6]	0 -	0 -	3.6 [2.4; 5.4]	18.7 [2.8; 64.7]	3.6 [2.4; 5.5]	0 -
Stocked out of AL	0 -	0 -	0 -	0 -	6 [3.8; 9.1]	0 -	5.2 [3.3; 8.1]	0 -	0 -	5.6 [2; 14.8]	0 -	0 -	3.8 [2.4; 5.9]	0 -	3.4 [2.2; 5.3]	0 -
Stocked out of ASAQ	0 -	0 -	0 -	0 -	5.1 [2.3; 11]	0 -	4.5 [2; 9.6]	0 -	3.8 [0.4; 27]	5.1 [1.4; 16.8]	0.4 [0.1; 2.7]	0 -	1.8 [1; 3.5]	0 -	1.9 [1.1; 3.3]	9.1 [1.8; 34.7]
Stocked out of DHAPPQ	0 -	7.6 [0.9; 42]	0 -	0 -	2.5 [1.3; 4.7]	0 -	2.3 [1.3; 4.1]	0 -	3.8 [0.4; 27]	6.9 [2.9; 15.4]	0.5 [0.1; 2]	0 -	2.8 [1.6; 4.9]	0 -	2.8 [1.8; 4.5]	0 -
Stocked out of artemether	0 -	0 -	0 -	0 -	6.9 [3.1; 14.6]	10.4 [2.9; 31]	6.7 [3.2; 13.4]	0 -	3.8 [0.4; 27]	11.9 [5.6; 23.4]	6 [3.1; 11.4]	42.9 [4.7; 91.9]	6.9 [4.7; 10]	7.9 [2.8; 20.6]	7.3 [5.4; 9.7]	5.1 [0.7; 30.1]
Stocked out of artesunate	0 -	4.5 [0.6; 27.3]	0 -	0 -	17.8 [14.2; 22.2]	6.6 [1; 32.6]	16.1 [12.9; 20]	0 -	6.2 [1.1; 29]	22.8 [15.3; 32.5]	7.3 [3.8; 13.3]	42.9 [4.7; 91.9]	15.5 [12.7; 18.9]	5.1 [1.1; 19.9]	15 [12.3; 18.1]	9.1 [1.8; 34.7]
Stocked out of Chloroquine	0 -	4.5 [0.6; 27.3]	0 -	0 -	8.2 [5.7; 11.8]	15.2 [4.6; 40.4]	8.3 [6.2; 11.1]	0 -	3.8 [0.4; 27]	13 [6.8; 23.7]	3.9 [1.4; 10.2]	0 -	7.2 [5.1; 10]	14.1 [3.9; 40]	7.4 [5.5; 9.9]	0 -
Stocked out of Quinine	0 -	4.5 [0.6; 27.3]	0 -	0 -	10.6 [7.5; 14.8]	6.6 [1; 32.6]	9.8 [6.8; 13.8]	0 -	3.8 [0.4; 27]	7 [2.8; 16.5]	3.1 [0.9; 9.9]	0 -	6.7 [4.5; 9.8]	0 -	6.2 [4.3; 8.9]	0 -

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	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
	N=2	N=8	N=12	N=0	N=323	N=19	N=364	N=6	N=7	N=76	N=114	N=2	N=1017	N=23	N=1239	N=13
Stocked out of SP	47.2 [5.6; 93.1]	12.4 [3.3; 36.9]	0 -	0 -	18.8 [14.9; 23.6]	12.5 [3.5; 35.8]	17.7 [13.8; 22.4]	0 -	3.8 [0.4; 27]	9.8 [4.9; 18.5]	7.3 [3.1; 16.3]	0 -	11.8 [8.7; 15.9]	23.7 [5.8; 60.9]	11.5 [8.5; 15.3]	0 -
Stocked out of RDTs	52.8 [6.9; 94.4]	59.8 [18.9; 90.5]	36.6 [10.6; 73.8]	0 -	33.3 [23.9; 44.3]	25.7 [3.5; 76.6]	34 [24.1; 45.5]	0 -	29.7 [5.4; 75.6]	20 [10.5; 34.8]	13.8 [5.6; 30.4]	57.1 [8.1; 95.3]	26.4 [21.7; 31.7]	0 -	24.4 [20.6; 28.6]	23.6 [5.3; 63.2]

LAGOS

	Rural								Urban							
	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale	Not-for-profit facility	For-profit facility	Pharmacy	Laboratory	PPMV	Informal	Retail total	Wholesale
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]
	N=0	N=11	N=54	N=0	N=81	N=4	N=150	N=0	N=3	N=61	N=256	N=0	N=405	N=51	N=776	N=3
Stocked out of ACTs	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	5.2 [0.9; 25.7]	0 -	0 -	2.1 [0.3; 12.6]	14.8 [7.1; 28.4]	2.9 [1.1; 7.6]	0 -
Stocked out of AL	0 -	20.6 [7.9; 44.1]	0 -	0 -	0 -	0 -	1.5 [0.3; 6.7]	0 -	0 -	13.9 [3.3; 42.9]	0 -	0 -	0.6 [0.1; 3.5]	7.4 [3.6; 14.6]	2 [0.9; 4.4]	0 -
Stocked out of ASAQ	0 -	0 -	0 -	0 -	0.6 [0.1; 5.4]	0 -	0.4 [0.1; 3.2]	0 -	0 -	0 -	0.2 [0; 0.9]	0 -	0.4 [0.1; 2.3]	0 -	0.3 [0.1; 1]	0 -
Stocked out of DHAPPQ	0 -	0 -	0 -	0 -	0.6 [0.1; 5.4]	0 -	0.4 [0.1; 3.2]	0 -	0 -	0 -	1.6 [0.4; 6.4]	0 -	0.2 [0; 0.9]	0 -	0.7 [0.2; 2.5]	0 -
Stocked out of artemether	0 -	0 -	0 -	0 -	0.7 [0.1; 6.1]	0 -	0.5 [0.1; 3.9]	0 -	0 -	0 -	1.7 [0.6; 4.5]	0 -	7.5 [3.6; 14.9]	7.4 [3.6; 14.6]	4.9 [2.2; 10.4]	0 -
Stocked out of artesunate	0 -	14.4 [1.4; 66.8]	0 -	0 -	0.6 [0.1; 5.4]	0 -	1.5 [0.3; 8]	0 -	0 -	0.5 [0.1; 3.8]	5.4 [2.5; 11.3]	0 -	0.7 [0.2; 2.3]	7.4 [3.6; 14.6]	3.1 [1.7; 5.5]	0 -
Stocked out of Chloroquine	0 -	1.5 [0.1; 13.6]	0 -	0 -	0 -	0 -	0.1 [0; 1]	0 -	0 -	1.9 [0.4; 7.8]	2.5 [1.1; 5.5]	0 -	1.2 [0.4; 3.6]	0 -	1.6 [0.7; 3.5]	0 -
Stocked out of Quinine	0 -	1.5 [0.1; 13.6]	0 -	0 -	0 -	0 -	0.1 [0; 1]	0 -	0 -	0.5 [0.1; 3.9]	2.4 [1; 5.9]	0 -	0.1 [0; 0.6]	0 -	0.9 [0.3; 2.5]	0 -
Stocked out of SP	0 -	1.5 [0.1; 13.6]	0 -	0 -	0 -	0 -	0.1 [0; 1]	0 -	0 -	0.6 [0.1; 4.6]	0.8 [0.3; 2.3]	0 -	1.4 [0.5; 3.7]	0 -	1 [0.5; 2.1]	0 -
Stocked out of RDTs	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	1.8 [0.4; 7.6]	14.1 [5.2; 33.1]	0 -	0 -	0 -	7.4 [3.2; 16.1]	0 -

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8 PROVIDER INTERVIEW

8.1 Additional indicators from the provider interviews

Table 43. Provider interview information for each state

ABIA

	Not-for-profit facility N=15 % [95% CI]	For-profit facility N=16 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=3 % [95% CI]	PPMV N=1312 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1409 % [95% CI]	Wholesale N=29 % [95% CI]
Outlet characteristics								
Opening hours: Proportion of outlets open in the daytime only, evening only, both, or other								
Open during the day (morning-evening)	97.3 [82.8; 99.6]	71.8 [47; 87.9]	100 [0; 0]	100 [0; 0]	99.1 [98.1; 99.6]	100 [0; 0]	98.8 [98; 99.3]	100 [0; 0]
Open during the evening only	0 -	0 -	0 -	0 -	0.9 [0.5; 1.6]	0 -	0.8 [0.5; 1.5]	0 -
Open 24 hrs.	26.6 [13.1; 46.6]	40.4 [17.3; 68.7]	0 -	0 -	0.2 [0.1; 0.8]	0 -	0.9 [0.6; 1.4]	4.7 [0.7; 25.8]
Proportion with license: Proportion of outlets with the relevant license and registration to sell medicines								
Has (reported/observed) operating license	34.3 [17.7; 55.8]	23.6 [13.5; 37.9]	89 [77.2; 95]	45.1 [7.4; 89.4]	86.5 [81.2; 90.4]	0 -	84.6 [79.3; 88.7]	80.9 [60.5; 92.1]
Proportion with govt inspection: Proportion of outlets who have received a government inspection in the last year								
Had a gov't inspection in past year	31.4 [15.8; 52.7]	34.8 [15.9; 60.1]	16.6 [9.5; 27.6]	12.6 [1.4; 58.5]	3.5 [2.5; 4.8]	0 -	4.5 [3.5; 5.9]	4.7 [0.7; 25.8]
Staff characteristics								
Staff health qualifications: Proportion of outlets with at least one member of staff with selected health qualifications (pharmacist, CHW, etc.)								
At least one staff member has a health qualification	92 [64.8; 98.6]	93.7 [66.4; 99.1]	96.9 [81.8; 99.6]	100 [0; 0]	84.2 [81.4; 86.7]	0 -	84.2 [81.3; 86.7]	57.1 [48.9; 65]
Staff malaria training: Proportion of outlets with at least one member of staff who have received any training on malaria; by training type/ topic (treatment, diagnosis, monitoring/ surveillance, all, or other)								
A member of staff has received any malaria training in past yr	89.8 [63.3; 97.8]	58 [39.2; 74.7]	46.3 [31.9; 61.3]	100 [0; 0]	52.4 [49.9; 55]	100 [0; 0]	52.8 [50.3; 55.3]	54.2 [47; 61.2]
Malaria diagnosis	53 [30.1; 74.7]	34.4 [21.4; 50.4]	21.2 [12.2; 34.4]	100 [0; 0]	10 [8; 12.3]	50 [50; 50]	11.3 [9.4; 13.4]	15.6 [6.8; 31.7]
Malaria treatment	89.8 [63.3; 97.8]	51.6 [32.1; 70.7]	46.3 [31.9; 61.3]	100 [0; 0]	50.8 [47.7; 53.8]	100 [0; 0]	51.2 [48.2; 54.1]	51.1 [42.7; 59.4]
Malaria surveillance	19.6 [7.6; 42.1]	6.5 [1.3; 27.2]	0 -	32.5 [4.2; 84.2]	0.2 [0.1; 0.6]	0 -	0.5 [0.2; 1]	0 -
All (malaria treatment, diag and surveillance)	19.6 [7.6; 42.1]	4.7 [0.6; 27.6]	0 -	32.5 [4.2; 84.2]	0.1 [0; 0.4]	0 -	0.4 [0.2; 0.7]	0 -
Quality Control & Compliance								
Expiration date: Proportion of products audited that are within the expiration date listed on the packaging (i.e. not expired)								
***N= antimalarials audited*	*N=65*	*N=64*	*N=857*	*N=9*	*N=7319*	*N=64*	*N=8378*	*N=276*
Expired product	2.5 [0.6; 9.3]	1.5 [0.2; 9]	0.6 [0.4; 0.9]	0 -	1.1 [0.9; 1.4]	1.9 [0.8; 4.9]	1.1 [0.9; 1.3]	1 [0.4; 2.3]
Registration number: Proportion of products audited that have a registration number from the relevant national drug agency [not applicable if country does not have policy/ practice of ID marking packages]								
***N= antimalarials audited*	*N=65*	*N=64*	*N=857*	*N=9*	*N=7309*	*N=64*	*N=8368*	*N=274*
Product has a MAS code on packaging	67.9 [61.9; 73.4]	77.2 [61.7; 87.7]	84 [81.4; 86.4]	88.4 [86.1; 90.3]	82.3 [80.6; 83.9]	89.8 [83; 94.1]	82.4 [80.8; 84]	84.7 [74.6; 91.3]
Product has a NAFDAC code on packaging	95 [82.1; 98.7]	97.5 [90.1; 99.4]	99.3 [98; 99.8]	100 [0; 0]	99.3 [99; 99.5]	100 [0; 0]	99.3 [98.9; 99.5]	98.5 [98.1; 98.8]
Antimalarial storage (dry, dark area off floor): Proportion of outlets that practiced proper storage of antimalarial drugs on the day of the survey								
Stores antimalarials in dry area	100 [0; 0]	100 [0; 0]	100 [0; 0]	62.8 [11; 95.8]	99.7 [99.1; 99.9]	100 [0; 0]	99.7 [98.9; 99.9]	100 [0; 0]
Stores antimalarials away from direct sunlight	100 [0; 0]	100 [0; 0]	90.1 [80; 96.3]	62.8 [11; 95.8]	92.6 [90.8; 94]	100 [0; 0]	92.6 [90.9; 94.1]	87.5 [63.6; 96.6]

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	Not-for-profit facility N=15 % [95% CI]	For-profit facility N=16 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=3 % [95% CI]	PPMV N=1312 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1409 % [95% CI]	Wholesale N=29 % [95% CI]
Stores antimalarials on the floor	0 -	5 [0.7; 28.7]	0 -	0 -	0.3 [0.1; 0.8]	0 -	0.3 [0.1; 0.8]	0 -
RDT storage (dry dark area off floor): Proportion of outlets that practiced proper storage of RDTs on the day of the survey								
Stores RDTs in dry area	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 -	0 [0; 0]	0 -	0 [0; 0]	0 [0; 0]
Stores RDTs away from direct sunlight	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 -	0 [0; 0]	0 -	0 [0; 0]	0 [0; 0]
Stores RDTs on the floor	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Availability of blood testing equipment (disposable gloves, sharps container): Proportion of outlets that conduct malaria blood testing that have equipment for proper blood testing procedure (disposable gloves and sharps container)								
Has gloves available	100 [0; 0]	100 [0; 0]	100 [0; 0]	100 [0; 0]	26.7 [17.2; 39.1]	0 -	48.1 [34; 62.4]	33.3 [33.3; 33.3]
Has sharps container available	100 [0; 0]	100 [0; 0]	100 [0; 0]	100 [0; 0]	54.9 [42.8; 66.5]	0 -	68.1 [58.6; 76.2]	66.7 [66.7; 66.7]
Respondent malaria knowledge								
Proportion of respondents who identify an ACT (or specific front-line treatment(s)) as the most effective drug for uncomplicated malaria								
Names tablet ACTs has the most effective treatment for uncomplicated malaria	60.1 [39.4; 77.8]	32.8 [13.4; 60.8]	61.4 [50.5; 71.2]	38.1 [5.9; 85.8]	59.6 [56; 63]	42.5 [32.7; 53]	85.9 [54.8; 96.8]	57.9 [54.1; 61.5]
Proportion of respondents who have heard of an RDT for malaria								
Have you ever seen or heard of a malaria rapid diagnostic test (RDT)?	61.9 [38.6; 80.8]	72.7 [46.7; 89]	49.9 [40.1; 59.8]	76.1 [22.3; 97.2]	29.2 [25.4; 33.2]	16.2 [7.9; 30.5]	5.4 [0.7; 31.2]	29.5 [25.7; 33.6]
Proportion of respondents who have used an mRDT								
While working at this outlet, have you ever tested a client for malaria?	41.7 [17.1; 71.2]	78.2 [49.3; 93]	26.5 [12.3; 48.1]	0 -	4.2 [2.6; 6.9]	3.3 [1; 10.8]	0 -	8.4 [5.9; 11.9]
Proportion of respondents who would provide an antimalarial to a client with a negative malaria blood test								
Never	5.7 [0.8; 30.3]	58.8 [28.1; 83.9]	75.8 [56.8; 88.1]	18.6 [1.6; 75.7]	66.5 [58.8; 73.5]	0 -	100 [0; 0]	61.6 [52.6; 69.8]
Sometimes	40.9 [15.2; 72.7]	37.9 [14; 69.5]	22.7 [10.8; 41.6]	81.4 [24.3; 98.4]	26 [21.1; 31.7]	56.5 [43.7; 68.5]	0 -	28.4 [23.4; 34]
Always	53.4 [22.9; 81.6]	3.3 [0.5; 19.8]	1.5 [0.2; 11]	0 -	7.4 [4; 13.5]	43.5 [31.5; 56.3]	0 -	10 [6; 16.3]
When they have signs/symptoms of malaria	100 [0; 0]	86.5 [43; 98.2]	100 [0; 0]	100 [0; 0]	92.5 [87.1; 95.7]	76.9 [67.4; 84.3]	0 -	91.1 [86.2; 94.3]
Treats when client asks for malaria treatment	47.7 [18.9; 78.1]	84.7 [39.4; 97.9]	61.2 [45.9; 74.6]	100 [0; 0]	64.7 [51.9; 75.6]	54.4 [41.9; 66.3]	0 -	63.1 [51.9; 72.9]
Treats when respondent does not trust malaria test results	0 -	0 -	0 -	100 [0; 0]	6.1 [2.2; 16.2]	0 -	0 -	5.6 [2.2; 13.3]
Outlet tech/ digital access & use								
Has running water: Proportion of outlets with running water (1) available and (2) functional for the 30 days preceding the interview								
Had running water	97.9 [86.9; 99.7]	83.7 [61.1; 94.4]	62.1 [0; 73.6]	67.5 [15.8; 95.8]	29 [25; 33.3]	0 -	31.2 [26.8; 36]	12.5 [3.4; 36.4]
Has electricity: Proportion of outlets with electricity (1) available and (2) functional for the 30 days preceding the interview								
Had electricity	100 [0; 0]	96.5 [78.3; 99.5]	100 [0; 0]	100 [0; 0]	89.5 [83.3; 93.6]	43.2 [28.6; 59]	89.7 [83.7; 93.7]	90.7 [55.3; 98.7]
Has a phone, by type: Proportion of outlets with any phone (1) available and (2) functional for the 30 days preceding the ; phone type is recorded								
Had phone access	100 [0; 0]	100 [0; 0]	100 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Phone applications used: Proportion of outlets with a phone that use common applications (call, SMS, mobile money, WhatsApp, other)								
Phone app used: Mobile money	83 [54.3; 95.2]	79.4 [59.7; 90.9]	91.9 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Phone app used: SMS	100 [0; 0]	100 [0; 0]	96.1 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Phone app used: WhatsApp / Other messaging applications	89.1 [65.2; 97.3]	86.5 [60.5; 96.4]	82.3 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Phone app used: Call	100 [0; 0]	87.3 [50.3; 97.9]	90.5 [72.9; 97.1]	100 [0; 0]	93.1 [90.4; 95.1]	100 [0; 0]	93.1 [90.3; 95.1]	100 [0; 0]

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	Not-for-profit facility N=15 % [95% CI]	For-profit facility N=16 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=3 % [95% CI]	PPMV N=1312 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1409 % [95% CI]	Wholesale N=29 % [95% CI]
Has internet, by type of connection (Wi-Fi, data): Proportion of outlets with internet connection (1) available and (2) functional for the 30 days preceding the interview; type of connection(s) reported								
Had internet access	97.3 [82.8; 99.6]	87.3 [50.3; 97.9]	95.5 [82.4; 99]	100 [0; 0]	74.4 [69.7; 78.6]	83.2 [33.8; 98]	75.6 [71; 79.7]	76.2 [46.1; 92.3]
Has a tablet or computer: Proportion of outlets with tablet or computer (1) available and (2) functional for the 30 days preceding the interview								
Had tablet/ computer access	39.5 [21.5; 60.9]	4.7 [0.6; 27.6]	46.7 [33.9; 60.1]	0 -	3.2 [2.1; 4.9]	0 -	5 [3.3; 7.5]	6.2 [2.8; 13.3]
Applications of digital technology: Proportion of outlets using common applications for digital technology in their business practices (managing stock, sales, purchases and payment to suppliers, other)								
Already uses digital to manage sales	66.3 [48.4; 80.5]	4.4 [0.6; 25.9]	44.9 [30.6; 60.1]	12.6 [1.4; 58.5]	12.1 [9.3; 15.6]	8.4 [1.1; 41.9]	13.6 [11; 16.8]	21.8 [9.3; 43.1]
Already uses digital to manage stock	66.3 [48.4; 80.5]	4.4 [0.6; 25.9]	50.4 [38; 62.9]	12.6 [1.4; 58.5]	12.8 [10.1; 16.2]	8.4 [1.1; 41.9]	14.5 [11.8; 17.6]	21.8 [9.3; 43.1]
Already uses digital to place orders with suppliers	50.3 [30.9; 69.5]	24.9 [13.2; 41.9]	51 #VALUE!	12.6 [1.4; 58.5]	21.8 [17.9; 26.3]	8.4 [1.1; 41.9]	23 [19.1; 27.3]	37.4 [14.7; 67.5]
Already uses digital to paying suppliers	60.3 [30.2; 84.2]	30.9 [21.3; 42.4]	45.2 #VALUE!	12.6 [1.4; 58.5]	21.2 [17.9; 24.9]	8.4 [1.1; 41.9]	22.4 [19.1; 26]	34.3 [13.8; 63.1]
Already uses digital for HR (e.g. payroll, schedule)	43.6 [24.6; 64.6]	4.4 [0.6; 25.9]	32.8 #VALUE!	12.6 [1.4; 58.5]	10.6 [8; 14]	8.4 [1.1; 41.9]	11.6 [9; 14.8]	21.8 [9.3; 43.1]
Wants to use digital to manage sales in future	10 [2.4; 33.9]	42.8 [15.1; 75.9]	35.8 #VALUE!	54.9 [10.6; 92.6]	58.3 [54.8; 61.8]	8.4 [1.1; 41.9]	56.5 [53.3; 59.7]	54 [24.1; 81.2]
Wants to use digital to manage stock in future	10 [2.4; 33.9]	42.8 [15.1; 75.9]	35.8 #VALUE!	54.9 [10.6; 92.6]	59.7 [56.2; 63.2]	8.4 [1.1; 41.9]	57.9 [54.5; 61.2]	56.3 [24.4; 83.7]
Wants digital Placing orders with your suppliers in future	31.6 [14.2; 56.4]	42.8 [15.1; 75.9]	37.3 #VALUE!	87.4 [41.5; 98.6]	59.5 [56.1; 62.7]	8.4 [1.1; 41.9]	57.9 [54.7; 61.1]	57.1 [28.1; 82]
Wants to use digital to pay suppliers in future	16 [3.1; 53.1]	36.8 [14.7; 66.3]	43.1 #VALUE!	54.9 [10.6; 92.6]	57.7 [54.5; 61]	8.4 [1.1; 41.9]	56.2 [52.9; 59.5]	57.1 [28.1; 82]
Wants to use digital to manage HR (e.g. payroll, schedule) in future	32.7 [14.9; 57.6]	42.8 [15.1; 75.9]	49.4 #VALUE!	54.9 [10.6; 92.6]	59.9 [56.2; 63.4]	8.4 [1.1; 41.9]	58.7 [55.1; 62.2]	59.4 [28.3; 84.5]
Not interested Managing sales	15.7 [4.4; 42.9]	46.5 [15.5; 80.5]	19.3 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Not interested Managing stock	15.7 [4.4; 42.9]	46.5 [15.5; 80.5]	13.8 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Not interested Placing orders with your suppliers	10.1 [2.2; 36.1]	26 [7.4; 60.9]	11.7 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Not interested Paying your suppliers	15.7 [4.4; 42.9]	26 [7.4; 60.9]	11.7 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Not interested Managing human resources (e.g. payroll, schedule)	15.7 [4.4; 42.9]	46.5 [15.5; 80.5]	17.8 [11.9; 25.7]	32.5 [4.2; 84.2]	28.4 [26.4; 30.4]	0 -	27.9 [26; 29.9]	18.7 [8.1; 37.5]
Outlet participation in monitoring								
Reports malaria data: Proportion of outlets that report any information on malaria cases								
Reports malaria case data each month to any information system	35.2 [15; 62.7]	17.5 [4.2; 50.7]	5 [2.2; 11]	32.5 [4.2; 84.2]	3.5 [2.3; 5.3]	0 -	4 [2.8; 5.8]	3.1 [1.4; 6.7]
Reporting forms used: Proportion of outlets using select reporting forms								
Reports directly to government	60.6 [37.2; 80]	36.4 [15.8; 63.6]	30.2 [4.2; 81.1]	100 [0; 0]	20.3 [11.1; 34.1]	0 -	26 [16.2; 39]	0 -
Reports directly to DHIS2 platform	39.4 [20; 62.8]	36.4 [15.8; 63.6]	24.1 [3.2; 75.6]	0 -	19.5 [11.6; 31]	0 -	21.7 [14.4; 31.4]	0 -
Reports to specific project/ NGO	31 [11.8; 60.2]	27.2 [2.7; 83.5]	24.1 [3.2; 75.6]	0 -	63.1 [50.5; 74.1]	0 -	56.1 [42; 69.3]	100 [0; 0]
Reports: Other	0 -	0 -	45.7 [8; 89]	0 -	5.4 [1.6; 16.3]	0 -	6.3 [1.8; 20.1]	0 -
Had supervisory by health zone or health district staff in the last year: Proportion of outlets hat received a supervisory visit regarding malaria surveillance by health zone or health district staff in the last year								
Had a supervision visit related to malaria reporting/ surveillance in the past six months:	74.4 [47.6; 90.3]	12.7 [3.4; 37.2]	33.4 [17; 55.1]	0 -	20.3 [17; 24.1]	8.4 [1.1; 41.9]	21 [17.8; 24.7]	10.9 [7.2; 16.3]
Received feedback from supervisory visit: Proportion of outlets who received a supervision visit that also received written feedback after the visit								
Received feedback from supervision visit	38.9 [13.4; 72.4]	0 -	28.4 [12.5; 52.3]	0 -	11.7 [8.2; 16.5]	0 -	12.8 [9.8; 16.6]	22.2 [8.6; 46.7]

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	Not-for-profit facility N=15 % [95% CI]	For-profit facility N=16 % [95% CI]	Pharmacy N=52 % [95% CI]	Laboratory N=3 % [95% CI]	PPMV N=1312 % [95% CI]	Informal N=11 % [95% CI]	Retail total N=1409 % [95% CI]	Wholesale N=29 % [95% CI]
Has checklist for malaria surveillance: Proportion of outlets with a checklist for malaria surveillance (e.g. leaflet or poster from the national or local ministry of health)								
Has a checklist for malaria reporting/ surveillance	15.5 [4.2; 43.6]	27.2 [9; 58.6]	29 [19.7; 40.5]	87.4 [41.5; 98.6]	30.7 [26.3; 35.4]	0 -	30.5 [26.3; 35.1]	37.8 [17; 64.3]
Business practices								
Outlet sells to other outlets/ for resale: Proportion of outlets that report selling antimalarials or RDTs to be resold at another outlet (e.g. sells wholesale/ supplies other outlets/ sellers)								
Sells antimalarials to other outlets for resale (e.g. wholesale)	0 -	0 -	11.5 [8; 23.3]	0 -	0 -	8.9 [3; 23.4]	0.5 [0.2; 1]	64.9 [49.8; 77.6]
Outlet sells online: Proportion of outlets that sell antimalarials or RDTs online								
Sells antimalarials or RDTs online	0 -	0 -	2.7 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Distribution methods: Proportion of outlets reporting use various distribution methods to deliver antimalarials or RDTs to customers								
The outlet delivers to customers	0 -	0 -	100 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Customers come to the outlet to pick them up	0 -	0 -	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Through third party carriers (e.g. Delivery companies, couriers, etc.)	0 -	0 -	44.5 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Customer types (retail and wholesale/resale): Proportion of outlets reporting selling antimalarials or RDTs to each customer type								
Individual customers - retail only	92 [64.8; 98.6]	93.7 [66.4; 99.1]	94.2 [84.9; 97.9]	87.4 [41.5; 98.6]	98.1 [96.7; 98.9]	100 [0; 0]	97.9 [96.7; 98.6]	68.1 [50.2; 81.9]
Terminal wholesalers	0 -	0 -	10 [3.8; 23.9]	0 -	0 -	8.9 [3; 23.4]	0.4 [0.2; 1]	58.7 [48; 68.7]
Intermediate wholesalers	0 -	0 -	8.8 [3.1; 22.8]	0 -	0 -	0 -	0.3 [0.1; 0.9]	26.9 [20.8; 34]
Individual customers online	0 -	0 -	1.2 [0.2; 8.1]	0 -	0 -	0 -	0 [0; 0.3]	0 -
Sell wholesale online	0 -	0 -	1.2 [0.2; 8.1]	0 -	0 -	0 -	0 [0; 0.3]	0 -
Customer location (retail and wholesale/resale): Proportion of outlets reporting selling antimalarials or RDTs to each location type/ distance range								
From this community	100 [0; 0]	100 [0; 0]	97.3 [0; 99.5]	100 [0; 0]	96.7 [93.7; 98.3]	50 [50; 50]	96.7 [93.9; 98.3]	0 -
From neighboring communities	72.1 [51.5; 86.2]	89.6 [68.1; 97.2]	73.8 [0; 85.2]	100 [0; 0]	62 [57.3; 66.6]	100 [0; 0]	62.9 [58.4; 67.2]	0 -
From further away, but within this state	46.8 [25.1; 69.7]	37.6 [18.1; 62.3]	42.4 [0; 53.4]	12.6 [1.4; 58.5]	14.6 [12.3; 17.2]	100 [0; 0]	16.1 [13.9; 18.5]	0 -
From other states in Nigeria	10.9 [2.7; 34.8]	24.3 [5.7; 63.1]	1.8 [0; 5.8]	0 -	0.7 [0.3; 1.4]	0 -	1.1 [0.7; 1.8]	0 -
From other countries	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Online/ from the internet	0 -	0 -	1.8 [0; 5.8]	0 -	0 -	0 -	0.1 [0; 0.3]	0 -

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KANO

	Not-for-profit facility N=10 % [95% CI]	For-profit facility N=92 % [95% CI]	Pharmacy N=126 % [95% CI]	Laboratory N=66 % [95% CI]	PPMV N=1341 % [95% CI]	Informal N=45 % [95% CI]	Retail total N=1680 % [95% CI]	Wholesale N=19 % [95% CI]
Outlet characteristics								
Opening hours: Proportion of outlets open in the daytime only, evening only, both, or other								
Open during the day (morning-evening)	67 [26.6; 91.9]	32 [16.3; 53.3]	93.7 [90; 96.1]	98.6 [89.8; 99.8]	90.2 [87; 92.7]	89.4 [66.2; 97.3]	87.7 [83.5; 90.9]	100 [0; 0]
Open during the evening only	0 -	0 -	4.3 [2; 9.1]	1.4 [0.2; 10.4]	11.8 [9.5; 14.7]	6.8 [1; 34.5]	10 [8.1; 12.2]	11.2 [2; 43.5]
Open 24 hrs.	33 [8.1; 73.4]	73.8 [58.2; 85.1]	3.4 [1; 11.2]	0 [0; 0.2]	0 [0; 0]	4 [1; 15.3]	4.4 [2.7; 6.9]	0 -
Proportion with license: Proportion of outlets with the relevant license and registration to sell medicines								
Has (reported/observed) operating license	76.8 [35.2; 95.3]	66.7 [50.9; 79.4]	91.9 [87.2; 95]	59.1 [48.9; 68.5]	93.2 [89.4; 95.8]	3 [0.5; 16.1]	89 [85.7; 91.6]	90 [65.8; 97.7]
Proportion with govt inspection: Proportion of outlets who have received a government inspection in the last year								
Had a gov't inspection in past year	35.2 [7.5; 78.4]	58.8 [42.7; 73.2]	54.7 [46; 63.1]	65.4 [54.1; 75.2]	46.6 [40.4; 52.9]	7.9 [1.7; 30.4]	48.3 [43.5; 53.1]	59.1 [40.3; 75.6]
Staff characteristics								
Staff health qualifications: Proportion of outlets with at least one member of staff with selected health qualifications (pharmacist, CHW, etc.)								
At least one staff member has a health qualification	100 [0; 0]	93 [84; 97.1]	90.2 [84.9; 93.8]	92.7 [75.7; 98.1]	51.6 [49.2; 54]	4.9 [0.7; 26.6]	58.8 [56.7; 60.9]	60.2 [41.1; 76.7]
Staff malaria training: Proportion of outlets with at least one member of staff who have received any training on malaria; by training type/ topic (treatment, diagnosis, monitoring/ surveillance, all, or other)								
A member of staff has received any malaria training in past yr	54.3 [12.8; 90.6]	87.2 [78.9; 92.5]	74.6 [69.4; 79.1]	66.9 [44.6; 83.6]	71.1 [67.2; 74.7]	36.9 [5.2; 86.1]	71.9 [68.8; 74.9]	77.9 [52; 92]
Malaria diagnosis	54.3 [12.8; 90.6]	73.5 [67.1; 79.1]	53.3 [48.3; 58.2]	57.9 [39.5; 74.4]	51.1 [46; 56.1]	36.9 [5.2; 86.1]	52.8 [48.6; 56.9]	62 [34.6; 83.4]
Malaria treatment	54.3 [12.8; 90.6]	87.2 [78.9; 92.5]	69.2 [64.2; 73.8]	45.5 [21.6; 71.8]	63.5 [59.8; 67]	36.9 [5.2; 86.1]	64.3 [61.2; 67.4]	73.1 [42.8; 90.8]
Malaria surveillance	42.1 [9.5; 83.5]	40.8 [32.3; 49.9]	16.9 [12.6; 22.4]	11.4 [7; 18.1]	18.7 [15.7; 22.1]	0 -	19.5 [16.8; 22.4]	13.6 [3.4; 41.6]
All (malaria treatment, diag and surveillance)	42.1 [9.5; 83.5]	36.1 [27.7; 45.4]	14.9 [9.4; 22.7]	8.7 [4.6; 16]	14.5 [10.9; 19.1]	0 -	15.6 [12.2; 19.6]	13.6 [3.4; 41.6]
Quality Control & Compliance								
Expiration date: Proportion of products audited that are within the expiration date listed on the packaging (i.e. not expired)	*N=71*	*N=405*	*N=1501*	*N=3*	*N=7284*	*N=188*	*N=9449*	*N=176*
Expired product	0 -	0.7 [0.2; 2.2]	0.3 [0.1; 0.9]	0 -	0.7 [0.6; 1]	0 -	0.6 [0.5; 0.9]	1.5 [0.4; 4.9]
Registration number: Proportion of products audited that have a registration number from the relevant national drug agency [not applicable if country does not have policy/ practice of ID marking packages]	*N=71*	*N=405*	*N=1501*	*N=3*	*N=7272*	*N=186*	*N=9438*	*N=173*
Product has a MAS code on packaging	69.6 [61.4; 76.8]	64.2 [54.3; 73.1]	74.8 [72.7; 76.8]	33.3 [33.3; 33.3]	58.8 [55.5; 62.1]	62.3 [57.1; 67.2]	62.1 [59.3; 64.8]	52.8 [42.6; 62.8]
Product has a NAFDAC code on packaging	95.8 [93; 97.5]	99 [96.3; 99.7]	98.5 [97.2; 99.2]	100 [0; 0]	99.1 [98.8; 99.2]	96.8 [94.1; 98.3]	98.9 [98.6; 99.2]	96.8 [91.3; 98.9]
Antimalarial storage (dry, dark area off floor): Proportion of outlets that practiced proper storage of antimalarial drugs on the day of the survey								
Stores antimalarials in dry area	100 [0; 0]	100 [0; 0]	99.7 [97.6; 100]	100 [0; 0]	99.8 [99.1; 100]	99.6 [97.3; 100]	99.8 [99.3; 100]	100 [0; 0]
Stores antimalarials away from direct sunlight	100 [0; 0]	98.2 [88.3; 99.7]	95.9 [91.2; 98.2]	100 [0; 0]	98.1 [96.5; 99]	100 [0; 0]	97.9 [96.8; 98.6]	100 [0; 0]
Stores antimalarials on the floor	0 -	0 -	0.9 [0.2; 5.2]	0 -	0.1 [0; 0.7]	0.2 [0; 1.6]	0.2 [0.1; 0.6]	0 -
RDT storage (dry dark area off floor): Proportion of outlets that practiced proper storage of RDTs on the day of the survey								
Stores RDTs in dry area	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]
Stores RDTs away from direct sunlight	100 [0; 0]	100 [0; 0]	100 [0; 0]	100 [0; 0]	99.5 [97.9; 99.9]	100 [0; 0]	99.7 [98.5; 99.9]	100 [0; 0]
Stores RDTs on the floor	0 -	0 -	0 -	0 -	0.1 [0; 1]	0 -	0.1 [0; 0.7]	0 -

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	Not-for-profit facility N=10 % [95% CI]	For-profit facility N=92 % [95% CI]	Pharmacy N=126 % [95% CI]	Laboratory N=66 % [95% CI]	PPMV N=1341 % [95% CI]	Informal N=45 % [95% CI]	Retail total N=1680 % [95% CI]	Wholesale N=19 % [95% CI]
Availability of blood testing equipment (disposable gloves, sharps container): Proportion of outlets that conduct malaria blood testing that have equipment for proper blood testing procedure (disposable gloves and sharps container)								
Has gloves available	100 [0; 0]	95.1 [77.6; 99.1]	90.5 [83.1; 94.9]	91.6 [84.2; 95.7]	87.1 [84; 89.6]	72.1 [42; 90.2]	88.4 [85.9; 90.5]	66.2 [25.9; 91.7]
Has sharps container available	100 [0; 0]	95.1 [77.6; 99.1]	92.7 [81.1; 97.4]	91.9 [85; 95.8]	86.5 [82.1; 90]	58.4 [40.5; 74.3]	88 [85.1; 90.4]	76.5 [28.4; 96.4]
Respondent malaria knowledge								
Proportion of respondents who identify an ACT (or specific front-line treatment(s)) as the most effective drug for uncomplicated malaria								
Names tablet ACTs has the most effective treatment for uncomplicated malaria	87.6 [57; 97.4]	91.4 [84.7; 95.3]	62.1 [38.6; 81.1]	47.9 [36.3; 59.7]	87 [80.7; 91.4]	83.9 [65.5; 93.5]	86 [71.8; 93.7]	83.5 [79.3; 86.9]
Proportion of respondents who have heard of an RDT for malaria								
Have you ever seen or heard of a malaria rapid diagnostic test (RDT)?	100 [0; 0]	92.6 [83.3; 96.9]	79.1 [66.8; 87.7]	73.7 [54.9; 86.5]	85.8 [80.5; 89.8]	77.1 [60.2; 88.2]	64.2 [36.3; 85]	82.8 [76.2; 87.8]
Proportion of respondents who have used an mRDT								
While working at this outlet, have you ever tested a client for malaria?	94.1 [65.4; 99.3]	76.8 [62.4; 86.9]	43.6 [19.6; 70.9]	71.4 [61; 80]	69.2 [59.1; 77.8]	54.7 [26.7; 80]	32.1 [12; 61.9]	65.2 [55.5; 73.8]
Proportion of respondents who would provide an antimalarial to a client with a negative malaria blood test								
Never	6.5 [0.9; 33.6]	52.1 [32.1; 71.4]	27.1 [14.3; 45.4]	41.1 [29; 54.5]	22 [15.8; 29.6]	4.2 [1.7; 10.2]	61.5 [31.7; 84.6]	23.5 [17.8; 30.3]
Sometimes	41.6 [11.1; 80.2]	43.5 [26; 62.8]	67.5 [50.9; 80.6]	53.8 [37.3; 69.5]	65.2 [58.1; 71.7]	85.1 [72.2; 92.7]	37.7 [14.8; 67.7]	65.2 [59.3; 70.5]
Always	51.9 [15.9; 86]	4.5 [2; 9.8]	5.4 [1; 24.7]	5.1 [0.9; 25]	12.8 [5.8; 26]	10.6 [3.9; 26]	0.9 [0.1; 5.9]	11.3 [5.4; 22.2]
When they have signs/symptoms of malaria	100 [0; 0]	90 [70.1; 97.2]	100 [0; 0]	99 [94.4; 99.8]	94.5 [90.8; 96.8]	96.6 [87.2; 99.2]	87.5 [51.2; 97.9]	95 [92.2; 96.8]
Treats when client asks for malaria treatment	59.3 [18; 90.6]	49.3 [30.5; 68.3]	35.2 [17.4; 58.5]	31.7 [7.1; 73.8]	53.8 [45.7; 61.7]	34.7 [12.9; 65.7]	17.8 [4.3; 51]	48.5 [39.7; 57.5]
Treats when respondent does not trust malaria test results	37.6 [8.5; 79.7]	32.2 [19.5; 48.2]	38.2 [15.6; 67.4]	37.2 [21.4; 56.2]	16.7 [12.2; 22.4]	27 [12.7; 48.3]	5.3 [0.9; 25.4]	20.1 [14.3; 27.4]
Outlet tech/ digital access & use								
Has running water: Proportion of outlets with running water (1) available and (2) functional for the 30 days preceding the interview								
Had running water	100 [0; 0]	88 [79.1; 93.4]	49 [41.1; 56.9]	80.2 [69.4; 87.8]	4.3 [3.3; 5.7]	1.4 [0.2; 7]	16.4 [14.2; 18.9]	7.7 [1; 39.9]
Has electricity: Proportion of outlets with electricity (1) available and (2) functional for the 30 days preceding the interview								
Had electricity	100 [0; 0]	98.4 [93.8; 99.6]	91.7 [76.1; 97.5]	87.2 [70.9; 95]	93.2 [89.7; 95.6]	86.2 [68; 94.8]	93.1 [91.1; 94.6]	99.6 [96.7; 99.9]
Has a phone, by type: Proportion of outlets with any phone (1) available and (2) functional for the 30 days preceding the ; phone type is recorded								
Had phone access	100 [0; 0]	98.8 [95.4; 99.7]	99.7 [97.9; 100]	100 [99.8; 100]	98.3 [97.1; 99.1]	99.6 [96.7; 99.9]	98.6 [97.6; 99.2]	100 [0; 0]
Phone applications used: Proportion of outlets with a phone that use common applications (call, SMS, mobile money, WhatsApp, other)								
Phone app used: Mobile money	96.9 [84.3; 99.4]	95.2 [88; 98.2]	97.9 [93.3; 99.3]	96.7 [86.1; 99.3]	94.9 [91; 97.1]	84.5 [61.6; 94.9]	95.1 [91.1; 97.4]	100 [0; 0]
Phone app used: SMS	96.9 [84.3; 99.4]	97.7 [92.5; 99.3]	98.3 [93.5; 99.6]	97.5 [86.6; 99.6]	96.1 [92.8; 97.9]	94.2 [74.5; 98.9]	96.4 [93.1; 98.2]	100 [0; 0]
Phone app used: WhatsApp / Other messaging applications	99 [92.2; 99.9]	95.3 [88.2; 98.2]	98.8 [93.9; 99.8]	92.7 [74.7; 98.2]	93 [87.5; 96.2]	87.3 [65.7; 96.1]	93.6 [88.2; 96.6]	91 [56.2; 98.8]
Phone app used: Call	100 [0; 0]	100 [0; 0]	100 [0; 0]	99.5 [97.3; 99.9]	99.5 [98.6; 99.8]	97.4 [84; 99.6]	99.5 [98.8; 99.8]	100 [0; 0]
Has internet, by type of connection (Wi-Fi, data): Proportion of outlets with internet connection (1) available and (2) functional for the 30 days preceding the interview ; type of connection(s) reported								
Had internet access	25.4 [5.6; 66.3]	30.6 [14.2; 54]	27.9 [20.1; 37.4]	31.9 [23.6; 41.6]	15.1 [9.6; 22.8]	18.6 [6.6; 42.5]	17.8 [12.9; 24.2]	8.4 [1.3; 38.8]
Has a tablet or computer: Proportion of outlets with tablet or computer (1) available and (2) functional for the 30 days preceding the interview								
Had tablet/ computer access	94.5 [76; 98.9]	68.5 [50.4; 82.3]	61 [51.4; 69.9]	78 [62.6; 88.2]	6 [5.3; 6.8]	0 -	17.9 [15.4; 20.6]	7.7 [1; 39.9]
Applications of digital technology: Proportion of outlets using common applications for digital technology in their business practices (managing stock, sales, purchases and payment to suppliers, other)								
Already uses digital to manage sales	92.3 [72.5; 98.2]	60 [42.9; 74.9]	47.1 [34.4; 60.1]	51.5 [28.4; 74]	7.9 [5.9; 10.6]	0 -	16.6 [13.4; 20.3]	19 [7.1; 42]

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	Not-for-profit facility N=10 % [95% CI]	For-profit facility N=92 % [95% CI]	Pharmacy N=126 % [95% CI]	Laboratory N=66 % [95% CI]	PPMV N=1341 % [95% CI]	Informal N=45 % [95% CI]	Retail total N=1680 % [95% CI]	Wholesale N=19 % [95% CI]
Already uses digital to manage stock	92.3 [72.5; 98.2]	64.6 [46; 79.6]	48.5 [38; 59.2]	57.3 [45.6; 68.1]	6.9 [5.7; 8.3]	0 -	16.4 [14.2; 18.8]	19 [7.1; 42]
Already uses digital to place orders with suppliers	98.9 [91.3; 99.9]	68.9 [54.5; 80.4]	60.1 [48.6; 70.7]	56.3 [48.8; 63.5]	32.2 [28; 36.8]	7.5 [1.7; 26.9]	37.9 [33.9; 42.1]	20.8 [8.2; 43.8]
Already uses digital to paying suppliers	94.5 [71.6; 99.1]	71.8 [57.9; 82.6]	66.1 [48.4; 80.3]	62.1 [50.2; 72.7]	57.4 [53.4; 61.4]	12.8 [3.8; 35.7]	58.9 [54.4; 63.2]	57.7 [36.6; 76.2]
Already uses digital for HR (e.g. payroll, schedule)	87.9 [62; 97]	58.3 [42.9; 72.3]	30.5 [21.1; 41.8]	26.4 [9.2; 56]	2.2 [1.2; 4.1]	0 -	9.3 [7.3; 11.8]	9.6 [1.9; 37.1]
Wants to use digital to manage sales in future	7.7 [1.8; 27.5]	32.4 [18.8; 49.7]	44.4 [31.2; 58.5]	44.9 [20.8; 71.6]	86.9 [80; 91.6]	13.2 [4; 35.9]	76.9 [69.1; 83.2]	61.4 [37.3; 81]
Wants to use digital to manage stock in future	7.7 [1.8; 27.5]	27.7 [15; 45.4]	42.9 [31.8; 54.8]	39.1 [27; 52.8]	87.8 [81.9; 92]	13.2 [4; 35.9]	77 [71; 82.1]	61.4 [37.3; 81]
Wants digital Placing orders with your suppliers in future	1.1 [0.1; 8.7]	22.7 [14.9; 33.2]	32.4 [21.8; 45.2]	40.1 [30.6; 50.5]	64 [58.2; 69.3]	5.8 [0.9; 29.6]	56.8 [50.9; 62.5]	59.6 [36.2; 79.3]
Wants to use digital to pay suppliers in future	5.5 [0.9; 28.4]	20.8 [13; 31.6]	28 [14.8; 46.6]	33.6 [20.3; 50.2]	40 [35.5; 44.7]	0.4 [0.1; 3.1]	36.9 [31.5; 42.7]	22.8 [6; 57.6]
Wants to use digital to manage HR (e.g. payroll, schedule) in future	12.1 [3; 38]	32.7 [20.3; 48]	60.1 [46.8; 72.1]	68.1 [35.5; 89.2]	88.7 [78.6; 94.4]	13.2 [4; 35.9]	80.8 [70.9; 87.9]	59.7 [36.4; 79.3]
Not interested Managing sales	0 -	0.9 [0.2; 3.7]	6.2 [3.5; 10.9]	0 -	4.1 [1.9; 8.5]	0 -	3.9 [2; 7.2]	10.1 [1.7; 42.1]
Not interested Managing stock	0 -	0.9 [0.2; 3.7]	6.2 [3.5; 10.9]	0 -	4.2 [2; 8.6]	0 -	4 [2.1; 7.3]	10.1 [1.7; 42.1]
Not interested Placing orders with your suppliers	0 -	1.5 [0.4; 5]	5.1 [3.2; 8]	0 -	2.7 [1.2; 6.2]	0 -	2.7 [1.3; 5.4]	10.1 [1.7; 42.1]
Not interested Paying your suppliers	0 -	0.6 [0.1; 4.3]	3.5 [1.7; 7.2]	0.7 [0.1; 5.6]	1.5 [0.6; 3.3]	0 -	1.5 [0.9; 2.6]	10.1 [1.7; 42.1]
Not interested Managing human resources (e.g. payroll, schedule)	0 -	2.2 [0.6; 7.1]	7.1 [4; 12.4]	1.9 [0.3; 11.8]	8 [3.6; 16.9]	0 -	7.2 [3.5; 14.3]	21.3 [9.6; 40.7]
Outlet participation in monitoring								
Reports malaria data: Proportion of outlets that report any information on malaria cases								
Reports malaria case data each month to any information system	23.2 [4.8; 64.5]	33 [22.1; 46]	25.9 [18.8; 34.5]	30.2 [20.7; 41.9]	19.4 [13.9; 26.3]	0 -	21.2 [16.2; 27.2]	10.1 [2; 38.8]
Reporting forms used: Proportion of outlets using select reporting forms								
Reports directly to government	100 [0; 0]	92.6 [75.6; 98.1]	52.2 [32.8; 71]	90.7 [66; 98]	70.1 [64.6; 75]	0 -	71.4 [66.4; 75.9]	23.8 [2; 82.5]
Reports directly to DHIS2 platform	17.7 [1.8; 71.3]	9.4 [3.1; 25.2]	7.2 [2.6; 18.5]	0 -	6.6 [3.3; 12.5]	0 -	6.5 [3.3; 12.4]	0 -
Reports to specific project/ NGO	63.2 [14.9; 94.4]	21.5 [8.4; 44.8]	56.3 [31.3; 78.5]	15.3 [3.4; 47.6]	28.7 [24; 33.8]	0 -	30.5 [26.5; 34.9]	88.1 [41.4; 98.7]
Reports: Other	0 -	0 -	0 -	0 -	0.9 [0.2; 3.8]	0 -	0.7 [0.2; 3]	0 -
Had supervisory by health zone or health district staff in the last year: Proportion of outlets hat received a supervisory visit regarding malaria surveillance by health zone or health district staff in the last year								
Had a supervision visit related to malaria reporting/ surveillance in the past six months:	39 [8.3; 81.8]	31.4 [19; 47.2]	27.7 [20.5; 36.1]	15.4 [10.8; 21.4]	22.7 [14.7; 33.3]	4.9 [0.7; 26.6]	23.1 [15.4; 33.2]	18.5 [6.8; 41.3]
Received feedback from supervisory visit: Proportion of outlets who received a supervision visit that also received written feedback after the visit								
Received feedback from supervision visit	0 -	56.9 [44.7; 68.3]	19.9 [8.4; 40.2]	36.3 [14.7; 65.4]	16.8 [11.6; 23.7]	0 -	19.7 [14.4; 26.2]	0 -
Has checklist for malaria surveillance: Proportion of outlets with a checklist for malaria surveillance (e.g. leaflet or poster from the national or local ministry of health)								
Has a checklist for malaria reporting/ surveillance	45.3 [10.6; 85.3]	24.1 [17.3; 32.6]	24 [14.9; 36.3]	3.8 [0.9; 13.9]	17.1 [12.1; 23.6]	3.2 [0.3; 23.4]	17.7 [12.6; 24.3]	29.2 [7.1; 69.1]
Business practices								
Outlet sells to other outlets/ for resale: Proportion of outlets that report selling antimalarials or RDTs to be resold at another outlet (e.g. sells wholesale/ supplies other outlets/ sellers)								
Sells antimalarials to other outlets for resale (e.g. wholesale)	0 -	0 -	11.6 [5.6; 22.5]	0 -	5.1 [3.6; 7.1]	61 [32.9; 83.3]	5.8 [4.2; 7.9]	77.8 [58.9; 89.6]
Outlet sells online: Proportion of outlets that sell antimalarials or RDTs online								

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	Not-for-profit facility N=10 % [95% CI]	For-profit facility N=92 % [95% CI]	Pharmacy N=126 % [95% CI]	Laboratory N=66 % [95% CI]	PPMV N=1341 % [95% CI]	Informal N=45 % [95% CI]	Retail total N=1680 % [95% CI]	Wholesale N=19 % [95% CI]
Sells antimalarials or RDTs online	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Distribution methods: Proportion of outlets reporting use various distribution methods to deliver antimalarials or RDTs to customers								
The outlet delivers to customers	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Customers come to the outlet to pick them up	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Through third party carriers (e.g. Delivery companies, couriers, etc.)	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Customer types (retail and wholesale/resale): Proportion of outlets reporting selling antimalarials or RDTs to each customer type								
Individual customers - retail only	56.5 [13; 91.8]	77.4 [64.4; 86.6]	90.6 [85.5; 94]	0.7 [0.1; 5.6]	94.4 [90.7; 96.7]	95 [86.8; 98.2]	88.8 [87.2; 90.2]	76.6 [59.6; 87.8]
Terminal wholesalers	0 -	0 -	11.4 [5.5; 22.2]	0 -	4.9 [3.4; 7]	41.6 [14.3; 75.3]	5.4 [3.8; 7.6]	74 [55.8; 86.5]
Intermediate wholesalers	0 -	0 -	1.8 [0.3; 8.6]	0 -	0.3 [0.1; 0.8]	34 [17.4; 55.8]	0.8 [0.4; 1.6]	16.5 [6.3; 36.9]
Individual customers online	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Sell wholesale online	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Customer location (retail and wholesale/resale): Proportion of outlets reporting selling antimalarials or RDTs to each location type/ distance range								
From this community	95.9 [72.5; 99.5]	98.9 [95.4; 99.8]	93.5 [81.7; 97.9]	91.1 [74.3; 97.3]	99.2 [98.7; 99.5]	0 -	98.3 [97.3; 98.9]	0 -
From neighboring communities	95.9 [72.5; 99.5]	91 [81.2; 95.9]	81.7 [77.3; 85.3]	76.8 [63.2; 86.5]	47.2 [43.8; 50.5]	0 -	54.1 [51.3; 56.9]	0 -
From further away, but within this state	47.8 [11.3; 86.9]	22.1 [11.8; 37.6]	15.5 [12; 19.9]	11.3 [2.8; 36.5]	2.6 [1.5; 4.6]	0 -	5.4 [3.2; 9]	0 -
From other states in Nigeria	14.6 [1.8; 61.4]	1.2 [0.3; 5.1]	1.4 [0.3; 7.3]	3 [0.8; 11.4]	0.3 [0.1; 1.4]	0 -	0.7 [0.4; 1.2]	0 -
From other countries	0 -	0.6 [0.1; 4.6]	0.3 [0; 2.3]	0 -	0 -	0 -	0.1 [0; 0.3]	0 -
Online/ from the internet	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -

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LAGOS

	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=72 % [95% CI]	Pharmacy N=311 % [95% CI]	Laboratory N=66 % [95% CI]	PPMV N=486 % [95% CI]	Informal N=56 % [95% CI]	Retail total N=994 % [95% CI]	Wholesale N=3 % [95% CI]
Outlet characteristics								
Opening hours: Proportion of outlets open in the daytime only, evening only, both, or other								
Open during the day (morning-evening)	0 -	5.2 [1.8; 14.1]	98.1 [94.7; 99.3]	95 [82; 98.7]	100 [0; 0]	98.7 [91.3; 99.8]	92.1 [89.4; 94.1]	100 [0; 0]
Open during the evening only	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Open 24 hrs.	100 [0; 0]	94.8 [85.9; 98.2]	1.9 [0.7; 5.3]	5 [1.3; 18]	0 -	0 -	7.9 [5.9; 10.5]	0 -
Proportion with license: Proportion of outlets with the relevant license and registration to sell medicines								
Has (reported/observed) operating license	100 [0; 0]	50.6 [38.1; 63]	89.4 [84.3; 93]	63.9 [50.3; 75.6]	93.7 [89.4; 96.3]	0 -	82.8 [77.6; 87]	100 [0; 0]
Proportion with govt inspection: Proportion of outlets who have received a government inspection in the last year								
Had a gov't inspection in past year	54.5 [42.9; 65.7]	68.2 [61.1; 74.6]	41.4 [36.9; 46.1]	49.3 [38.2; 60.6]	23.4 [18.3; 29.5]	0 -	33.2 [29.8; 36.8]	100 [0; 0]
Staff characteristics								
Staff health qualifications: Proportion of outlets with at least one member of staff with selected health qualifications (pharmacist, CHW, etc.)								
At least one staff member has a health qualification	100 [0; 0]	89.9 [81.9; 94.5]	89.9 [83.9; 93.9]	89.5 [81.4; 94.4]	63.8 [59.9; 67.6]	0 -	72.8 [69.7; 75.8]	100 [0; 0]
Staff malaria training: Proportion of outlets with at least one member of staff who have received any training on malaria; by training type/ topic (treatment, diagnosis, monitoring/ surveillance, all, or other)								
A member of staff has received any malaria training in past yr	54.5 [42.9; 65.7]	62.2 [47.8; 74.7]	60.2 [56.4; 63.8]	67.3 [54.6; 77.9]	64.6 [60.1; 68.9]	0 -	63.3 [60; 66.4]	76.8 [20.9; 97.6]
Malaria diagnosis	54.5 [42.9; 65.7]	58.5 [45.5; 70.5]	45.7 [41.9; 49.5]	56.6 [49.7; 63.1]	41.7 [36.3; 47.2]	0 -	45.4 [41.5; 49.3]	76.8 [20.9; 97.6]
Malaria treatment	54.5 [42.9; 65.7]	62.2 [47.8; 74.7]	56.5 [52.3; 60.6]	44.8 [31.2; 59.2]	61.8 [56.4; 67]	0 -	58.8 [55.6; 62]	76.8 [20.9; 97.6]
Malaria surveillance	54.5 [42.9; 65.7]	18.7 [9.9; 32.5]	9 [6.2; 13]	26.2 [15.4; 41]	1.7 [0.9; 3]	0 -	7.3 [4.9; 10.7]	57.8 [10.8; 94]
All (malaria treatment, diag and surveillance)	54.5 [42.9; 65.7]	18.7 [9.9; 32.5]	7.8 [5.1; 11.8]	19.2 [9.8; 34]	1.2 [0.5; 2.9]	0 -	6.1 [4; 9.3]	57.8 [10.8; 94]
Quality Control & Compliance								
Expiration date: Proportion of products audited that are within the expiration date listed on the packaging (i.e. not expired)	*N=14*	*N=275*	*N=3213*	*N=0*	*N=2737*	*N=190*	*N=6429*	*N=11*
#N/A	0 -	0.8 [0.1; 5.9]	3.4 [1.9; 5.9]	0 -	5.1 [2.5; 10]	0 [0; 0.3]	4 [2.3; 6.8]	0 -
Registration number: Proportion of products audited that have a registration number from the relevant national drug agency [not applicable if country does not have policy/ practice of ID marking packages]	*N=14*	*N=274*	*N=3214*	*N=0*	*N=2734*	*N=189*	*N=6425*	*N=11*
Product has a MAS code on packaging	84.2 [82.2; 86.1]	64.2 [59.3; 68.9]	85.6 [83.5; 87.5]	0 -	81.7 [79; 84.1]	81.6 [72.2; 88.3]	82.9 [80.9; 84.7]	100 [0; 0]
Product has a NAFDAC code on packaging	97.4 [79.2; 99.7]	99.8 [98.9; 99.9]	99.2 [98.8; 99.5]	0 -	99.2 [98.6; 99.6]	100 [99.7; 100]	99.2 [98.9; 99.5]	100 [0; 0]
Antimalarial storage (dry, dark area off floor): Proportion of outlets that practiced proper storage of antimalarial drugs on the day of the survey								
Stores antimalarials in dry area	100 [0; 0]	100 [0; 0]	100 [0; 0]	0 -	99.9 [99.2; 100]	95.6 [77.6; 99.3]	99.7 [98.6; 99.9]	100 [0; 0]
Stores antimalarials away from direct sunlight	100 [0; 0]	87.2 [72.6; 94.6]	85.4 [79.7; 89.7]	0 -	87.2 [83.5; 90.1]	78.8 [58.9; 90.6]	86.2 [83.7; 88.4]	100 [0; 0]
Stores antimalarials on the floor	0 -	0 -	0.1 [0; 0.6]	0 -	0.9 [0.3; 2.3]	0.2 [0; 1.2]	0.5 [0.2; 1.3]	0 -
RDT storage (dry dark area off floor): Proportion of outlets that practiced proper storage of RDTs on the day of the survey								
Stores RDTs in dry area	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 [0; 0]	0 -	0 [0; 0]	0 -
Stores RDTs away from direct sunlight	100 [0; 0]	100 [0; 0]	87.9 [54.2; 97.8]	92.8 [63.4; 99]	100 [0; 0]	0 -	93.2 [77.8; 98.2]	0 -
Stores RDTs on the floor	0 -	2.5 [0.3; 18.3]	0 -	0 -	0 -	0 -	0.6 [0.1; 4.4]	0 -

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	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=72 % [95% CI]	Pharmacy N=311 % [95% CI]	Laboratory N=66 % [95% CI]	PPMV N=486 % [95% CI]	Informal N=56 % [95% CI]	Retail total N=994 % [95% CI]	Wholesale N=3 % [95% CI]
Availability of blood testing equipment (disposable gloves, sharps container): Proportion of outlets that conduct malaria blood testing that have equipment for proper blood testing procedure (disposable gloves and sharps container)								
Has gloves available	100 [0; 0]	100 [0; 0]	80.2 [66.1; 89.3]	100 [0; 0]	67.2 [37.1; 87.7]	0 -	93.2 [86; 96.8]	0 -
Has sharps container available	100 [0; 0]	100 [0; 0]	72.5 [53.4; 85.9]	100 [0; 0]	58.6 [29.3; 82.9]	0 -	91 [82.5; 95.6]	0 -
Respondent malaria knowledge								
Proportion of respondents who identify an ACT (or specific front-line treatment(s)) as the most effective drug for uncomplicated malaria								
Names tablet ACTs has the most effective treatment for uncomplicated malaria	100 [0; 0]	85.3 [72.6; 92.7]	66.6 [49.8; 80]	87.2 [83; 90.4]	75.3 [59.6; 86.4]	73.6 [62.8; 82.2]	85.1 [80.7; 88.7]	100 [0; 0]
Have you ever seen or heard of a malaria rapid diagnostic test (RDT)?	100 [0; 0]	82.8 [72.5; 89.8]	88.4 [73.7; 95.4]	43.6 [36.9; 50.5]	9.8 [1.8; 39]	4.8 [1; 20.5]	52.7 [42.4; 62.8]	100 [0; 0]
While working at this outlet, have you ever tested a client for malaria?	14.3 [1.6; 63.2]	67.8 [50.7; 81.1]	40.8 [24.1; 59.9]	7.5 [4.1; 13.4]	0 -	0 -	22.3 [18.3; 26.9]	0 -
Never	85.7 [36.8; 98.4]	28.9 [14.9; 48.6]	52.7 [42.5; 62.6]	45.4 [29.9; 61.9]	40.7 [8; 84.4]	58.3 [15.5; 91.4]	42.1 [34; 50.6]	100 [0; 0]
Sometimes	14.3 [1.6; 63.2]	35.5 [24.5; 48.3]	41 [32.9; 49.7]	35.9 [24.3; 49.6]	59.3 [15.6; 92]	41.7 [8.6; 84.5]	40.4 [34.6; 46.4]	0 -
Always	0 -	35.6 [17.5; 58.9]	6.3 [1.9; 19.1]	18.7 [10.1; 32]	0 -	0 -	17.6 [11.7; 25.7]	0 -
When they have signs/symptoms of malaria	0 -	81.7 [61.5; 92.5]	74 [42.4; 91.6]	77.7 [63.8; 87.3]	18.1 [1.3; 78.5]	84.5 [24.9; 98.9]	77.9 [71.6; 83.2]	0 -
Treats when client asks for malaria treatment	100 [0; 0]	39.9 [25.8; 56]	40.1 [19; 65.5]	44.3 [29.1; 60.6]	18.1 [1.3; 78.5]	100 [0; 0]	44.9 [36.1; 54]	0 -
Treats when respondent does not trust malaria test results	0 -	17.3 [3.3; 55.9]	11 [3.2; 31.6]	6.6 [2.8; 14.7]	81.9 [21.5; 98.7]	0 -	11.6 [6.2; 20.6]	0 -
Outlet tech/ digital access & use								
Has running water: Proportion of outlets with running water (1) available and (2) functional for the 30 days preceding the interview								
Had running water	100 [0; 0]	100 [0; 0]	77.1 [72; 81.6]	100 [0; 0]	20.9 [17.4; 25]	14.2 [4.8; 35.2]	48.9 [42.7; 55.2]	100 [0; 0]
Has electricity: Proportion of outlets with electricity (1) available and (2) functional for the 30 days preceding the interview								
Had electricity	100 [0; 0]	97.6 [88.1; 99.5]	96.9 [95.1; 98]	93.9 [76.3; 98.7]	84.1 [79.4; 87.9]	40 [22.1; 61.1]	87.7 [84.5; 90.2]	100 [0; 0]
Has a phone, by type: Proportion of outlets with any phone (1) available and (2) functional for the 30 days preceding the ; phone type is recorded								
Had phone access	100 [0; 0]	95.6 [79.3; 99.2]	97.5 [92.5; 99.2]	98.6 [92.7; 99.7]	89.2 [85.6; 92.1]	88.3 [74; 95.2]	92.8 [91.2; 94.2]	100 [0; 0]
Phone applications used: Proportion of outlets with a phone that use common applications (call, SMS, mobile money, WhatsApp, other)								
Phone app used: Mobile money	45.5 [34.3; 57.1]	70.6 [57.3; 81.2]	66.4 [61.9; 70.6]	55.2 [46.7; 63.3]	64.8 [58.9; 70.3]	61.7 [38.3; 80.7]	64.7 [61.9; 67.4]	42.2 [6; 89.2]
Phone app used: SMS	54.5 [42.9; 65.7]	90.6 [80.5; 95.7]	80.3 [72.4; 86.4]	86 [76.3; 92.2]	71.6 [65.3; 77.2]	78.5 [60.8; 89.6]	76.9 [71.3; 81.7]	100 [0; 0]
Phone app used: WhatsApp / Other messaging applications	100 [0; 0]	90.8 [80.1; 96]	84.8 [79.9; 88.7]	88.2 [77.6; 94.2]	81.9 [79.1; 84.5]	69.2 [49.5; 83.7]	83.4 [81.2; 85.4]	100 [0; 0]
Phone app used: Call	100 [0; 0]	99.2 [94.7; 99.9]	97 [92.3; 98.8]	97.7 [86.8; 99.6]	94.8 [91.9; 96.6]	88.5 [71.2; 96]	95.7 [93.6; 97.2]	100 [0; 0]
Has internet, by type of connection (Wi-Fi, data): Proportion of outlets with internet connection (1) available and (2) functional for the 30 days preceding the interview ; type of connection(s) reported								
Had internet access	100 [0; 0]	93.8 [79.6; 98.3]	89.5 [84.9; 92.8]	88.9 [78.8; 94.5]	69.3 [64.4; 73.9]	31.7 [19.6; 47]	76.9 [73.4; 80]	100 [0; 0]
Has a tablet or computer: Proportion of outlets with tablet or computer (1) available and (2) functional for the 30 days preceding the interview								
Had tablet/ computer access	100 [0; 0]	71.3 [55.6; 83.1]	66.2 [59.4; 72.4]	88.5 [77.3; 94.5]	2.9 [1.6; 5.3]	0 -	34.5 [24.3; 46.2]	42.2 [6; 89.2]
Applications of digital technology: Proportion of outlets using common applications for digital technology in their business practices (managing stock, sales, purchases and payment to suppliers, other)								
Already uses digital to manage sales	100 [0; 0]	67.6 [52.9; 79.4]	57.9 [49.7; 65.8]	59.7 [43.1; 74.4]	13 [10.3; 16.3]	0 -	33.8 [28.3; 39.9]	42.2 [6; 89.2]

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	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=72 % [95% CI]	Pharmacy N=311 % [95% CI]	Laboratory N=66 % [95% CI]	PPMV N=486 % [95% CI]	Informal N=56 % [95% CI]	Retail total N=994 % [95% CI]	Wholesale N=3 % [95% CI]
Already uses digital to manage stock	100 [0; 0]	63.7 [51.6; 74.3]	56.8 [49; 64.3]	58.2 [47.9; 67.8]	10.6 [8.7; 13]	0 -	31.9 [26.5; 37.8]	42.2 [6; 89.2]
Already uses digital to place orders with suppliers	45.5 [34.3; 57.1]	61.2 [46.4; 74.3]	47.1 [40.3; 54]	43 [33.8; 52.7]	20.1 [17.4; 23]	0 -	32.2 [29.3; 35.2]	42.2 [6; 89.2]
Already uses digital to paying suppliers	45.5 [34.3; 57.1]	61.9 [47.7; 74.4]	50.9 [44.1; 57.6]	47 [34.8; 59.5]	35.8 [31.9; 39.9]	0 -	41.6 [39.7; 43.5]	42.2 [6; 89.2]
Already uses digital for HR (e.g. payroll, schedule)	45.5 [34.3; 57.1]	55.8 [40.4; 70.2]	42.3 [35.4; 49.6]	49.2 [39; 59.4]	3.8 [2.6; 5.4]	0 -	22.7 [18.1; 28]	42.2 [6; 89.2]
Wants to use digital to manage sales in future	0 -	16.1 [6.9; 33.3]	26 [19; 34.5]	20.5 [12.6; 31.7]	66.5 [63.1; 69.8]	0 -	43.9 [38.7; 49.3]	57.8 [10.8; 94]
Wants to use digital to manage stock in future	0 -	19.9 [9.8; 36.2]	27 [20.1; 35.1]	22.7 [15.9; 31.3]	66.4 [63.1; 69.6]	0 -	44.6 [39.4; 49.9]	57.8 [10.8; 94]
Wants digital Placing orders with your suppliers in future	0 -	18.8 [8.7; 36.1]	27 [22.3; 32.3]	33.7 [25.8; 42.6]	57.4 [52.5; 62.1]	0 -	40.8 [36.5; 45.3]	57.8 [10.8; 94]
Wants to use digital to pay suppliers in future	0 -	16.2 [6.8; 34]	24.1 [19.4; 29.5]	29.7 [17.4; 45.8]	42.8 [37.8; 47.8]	0 -	32.1 [29.2; 35.2]	57.8 [10.8; 94]
Wants to use digital to manage HR (e.g. payroll, schedule) in future	0 -	22.3 [11.8; 38.3]	31.6 [25.4; 38.5]	31.3 [23.2; 40.7]	70.9 [66.6; 74.9]	0 -	49.1 [44.3; 53.9]	57.8 [10.8; 94]
Not interested Managing sales	0 -	6.2 [1.9; 18.2]	8.3 [4.9; 13.6]	16.1 [7.4; 31.5]	18 [15.5; 20.7]	0 -	13.2 [11; 15.7]	0 -
Not interested Managing stock	0 -	6.2 [1.9; 18.2]	8.4 [4.7; 14.5]	15.4 [10.5; 22]	20.5 [17.9; 23.3]	0 -	14.4 [11.7; 17.7]	0 -
Not interested Placing orders with your suppliers	54.5 [42.9; 65.7]	9.8 [3.6; 23.9]	18.1 [13.7; 23.6]	19.7 [14; 26.8]	20.1 [16.7; 23.9]	0 -	17.9 [15.2; 21]	0 -
Not interested Paying your suppliers	54.5 [42.9; 65.7]	11.7 [5.3; 23.9]	17.3 [12.6; 23.1]	19.7 [14; 26.8]	19 [16.4; 21.8]	0 -	17.2 [14.7; 20]	0 -
Not interested Managing human resources (e.g. payroll, schedule)	54.5 [42.9; 65.7]	11.7 [5.3; 23.9]	18.2 [12.5; 25.9]	15.9 [11.1; 22.1]	22.8 [19.4; 26.6]	0 -	19.1 [16.2; 22.4]	0 -
Outlet participation in monitoring								
Reports malaria data: Proportion of outlets that report any information on malaria cases								
Reports malaria case data each month to any information system	100 [0; 0]	77.3 [65.2; 86]	8.6 [5.8; 12.5]	22.1 [14.4; 32.4]	9.1 [7.2; 11.5]	0 -	15.3 [12.8; 18.2]	0 -
Reporting forms used : Proportion of outlets using select reporting forms								
Reports directly to government	100 [0; 0]	89.5 [73.5; 96.3]	67.2 [42.3; 85.2]	80.1 [45.1; 95.2]	53.5 [31.5; 74.3]	0 -	73.3 [59.9; 83.4]	0 -
Reports directly to DHIS2 platform	0 -	0.6 [0.1; 4.8]	10.8 [2.5; 36.3]	28.2 [12.5; 52]	14.1 [6.1; 29.5]	0 -	9.9 [6; 15.8]	0 -
Reports to specific project/ NGO	0 -	0 -	0 -	0 -	3.4 [0.6; 17.9]	0 -	1.1 [0.2; 7]	0 -
Reports: Other	45.5 [34.3; 57.1]	5.3 [1.5; 17.2]	10.6 [2.5; 35.3]	11.5 [2.3; 41.5]	29 [15; 48.5]	0 -	15.2 [7.8; 27.6]	0 -
Had supervisory by health zone or health district staff in the last year: Proportion of outlets hat received a supervisory visit regarding malaria surveillance by health zone or health district staff in the last year								
Had a supervision visit related to malaria reporting/ surveillance in the past six months:	0 -	18.9 [11.2; 30.2]	11.4 [7.8; 16.5]	14.8 [10.1; 21.2]	11.5 [9.2; 14.3]	0 -	11.8 [9.7; 14.1]	0 -
Received feedback from supervisory visit: Proportion of outlets who received a supervision visit that also received written feedback after the visit								
Received feedback from supervision visit	0 -	26.7 [12.1; 49]	14.9 [9; 23.6]	39.2 [19; 64]	11.1 [5.6; 20.7]	0 -	13.4 [9.7; 18.3]	0 -
Has checklist for malaria surveillance: Proportion of outlets with a checklist for malaria surveillance (e.g. leaflet or poster from the national or local ministry of health)								
Has a checklist for malaria reporting/ surveillance	54.5 [42.9; 65.7]	21.4 [14.3; 30.6]	19 [15.1; 23.5]	13.9 [5.6; 30.3]	16 [12.5; 20.2]	0 -	17.3 [15.2; 19.5]	0 -
Business practices								
Outlet sells to other outlets/ for resale: Proportion of outlets that report selling antimalarials or RDTs to be resold at another outlet (e.g. sells wholesale/ supplies other outlets/ sellers)								
Sells antimalarials to other outlets for resale (e.g. wholesale)	0 -	0 -	6.6 [2.9; 14.4]	0 -	0.3 [0.1; 1.3]	0.1 [0; 1.1]	2.1 [1.1; 4.3]	42.2 [6; 89.2]
Outlet sells online: Proportion of outlets that sell antimalarials or RDTs online								

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	Not-for-profit facility N=3 % [95% CI]	For-profit facility N=72 % [95% CI]	Pharmacy N=311 % [95% CI]	Laboratory N=66 % [95% CI]	PPMV N=486 % [95% CI]	Informal N=56 % [95% CI]	Retail total N=994 % [95% CI]	Wholesale N=3 % [95% CI]
Sells antimalarials or RDTs online	0 -	2.4 [0.5; 10]	4.4 [2.1; 8.9]	0 -	0.3 [0.1; 1.5]	0 -	1.7 [0.9; 3.3]	23.2 [2.4; 79.1]
Distribution methods: Proportion of outlets reporting use various distribution methods to deliver antimalarials or RDTs to customers								
The outlet delivers to customers	0 -	70.7 [12.8; 97.6]	21.9 [6.4; 53.4]	0 -	0 -	0 -	25 [8.7; 53.8]	0 -
Customers come to the outlet to pick them up	0 -	0 -	6.6 [1.2; 29.4]	0 -	100 [0; 0]	0 -	14.8 [3.2; 48.1]	100 [0; 0]
Through third party carriers (e.g. Delivery companies, couriers, etc.)	0 -	29.3 [2.4; 87.2]	87.7 [75.4; 94.3]	0 -	0 -	0 -	73.1 [46.2; 89.6]	100 [0; 0]
Customer types (retail and wholesale/resale): Proportion of outlets reporting selling antimalarials or RDTs to each customer type								
Individual customers - retail only	100 [0; 0]	81.3 [68.9; 89.5]	91.4 [88.1; 93.8]	0 -	95.9 [93.3; 97.5]	94.3 [84.7; 98]	86.1 [82.2; 89.3]	0 -
Terminal wholesalers	0 -	0 -	6.6 [2.9; 14.4]	0 -	0.3 [0.1; 1.3]	0.1 [0; 1.1]	2.1 [1.1; 4.3]	42.2 [6; 89.2]
Intermediate wholesalers	0 -	0 -	2.9 [1; 8.3]	0 -	0 -	0 -	0.9 [0.3; 2.2]	23.2 [2.4; 79.1]
Individual customers online	0 -	0 -	0.1 [0; 0.8]	0 -	0 -	0 -	0 [0; 0.2]	0 -
Sell wholesale online	0 -	0 -	0 -	0 -	0 -	0 -	0 -	23.2 [2.4; 79.1]
Customer location (retail and wholesale/resale): Proportion of outlets reporting selling antimalarials or RDTs to each location type/ distance range								
From this community	100 [0; 0]	99.3 [95.1; 99.9]	99 [96.1; 99.7]	96.4 [85.7; 99.2]	99.2 [98; 99.7]	0 -	98.9 [97.6; 99.5]	0 -
From neighboring communities	100 [0; 0]	96.1 [87.8; 98.8]	82.9 [79.4; 85.9]	63.8 [48.5; 76.8]	64 [58.5; 69.2]	0 -	72 [68.6; 75.2]	0 -
From further away, but within this state	45.5 [34.3; 57.1]	47.6 [35; 60.6]	23.1 [16.4; 31.6]	19.2 [11.3; 30.6]	8.1 [5.6; 11.6]	0 -	16.5 [13.7; 19.8]	0 -
From other states in Nigeria	0 -	1.1 [0.3; 4.4]	2.4 [0.7; 7.8]	3.8 [1; 13.9]	0.3 [0.1; 1.5]	0 -	1.3 [0.7; 2.4]	0 -
From other countries	0 -	0.9 [0.2; 4.5]	0 -	0 -	0 -	0 -	0.1 [0; 0.4]	0 -
Online/ from the internet	0 -	0 -	0.2 [0; 1.6]	0 -	0 -	0 -	0.1 [0; 0.5]	0 -

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APPENDIX

Appendix 1. Key indicator definitions

No.	Indicator group	Indicator	Value reported	Numerator	Denominator
		Priority indicators			
1.1	Market Composition among antimalarial-stocking outlets	The distribution (proportion) of outlets of a given type among outlets with at least one antimalarial in stock on the day of the survey	% & CI	Number of a given type of outlet with any antimalarial in stock at the time of the survey visit	Number of outlets with any antimalarial in stock on the day of the survey visit
1.2	Market Composition among outlets with malaria blood-testing	The distribution (proportion) of outlets of a given type among outlets with malaria blood testing (microscopy or RDT) available on the day of the survey.	% & CI	Number of outlets of a given type with malaria blood testing (microscopy or RDT) available at the time of the survey visit.	Total number of outlets with malaria blood testing (microscopy or RDT) available at the time of the survey visit.
2.1	Availability of antimalarials in all screened outlets	Proportion of all outlets enumerated that had an antimalarial in stock at the time of the survey visit	% & CI	Number of outlets with any antimalarial in stock on the day of the survey visit, as confirmed by presence of at least one antimalarial.	Number of outlets screened
2.2	Availability of antimalarials among antimalarial-stocking outlets	Proportion of antimalarial-stocking outlets with antimalarial medicine in stock on the day of the visit, among all outlets surveyed with one or more antimalarials in stock	% & CI	Number of outlets with a given type of antimalarial in stock on the day of the visit	Number of outlets with any antimalarial in stock on the day of the survey visit
2.3	Availability of malaria blood testing in all screened outlets	Proportion of all outlets enumerated that had any malaria blood testing available at the time of the survey visit	% & CI	Number of outlets with malaria blood testing available (any, microscopy, RDT, QA RDT).	Number of outlets screened
2.4	Availability of malaria blood testing among antimalarial-stocking outlets	Proportion of antimalarial-stocking outlets that had malaria blood testing available on the day of the survey visit, among all outlets surveyed with one or more antimalarials in stock	% & CI	Number of outlets with malaria blood testing available (any, microscopy, RDT, QA RDT).	Number of outlets with any antimalarial in stock on the day of the survey visit
3.1	Median sales volume of antimalarial AETDs	Median number of antimalarial AETDs sold in the week preceding the survey, of any outlets stocking antimalarials	Median N & IQR	Number of antimalarial AETDs sold in the week preceding the survey	.

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3.2	Median sales volume of antimalarial AETDs among outlets with any sales of that antimalarial type	Median number of antimalarial AETDs sold in the week preceding the survey among outlets with any sales of that type of antimalarial	Median N & IQR	Number of antimalarial AETDs sold in the week preceding the survey among outlets with any sales of that antimalarial type.	.
3.3	Median sales volume of malaria blood tests	Median number (N) of malaria blood tests conducted/ sold in the week preceding the survey	Median N & IQR	Number of malaria blood tests conducted/ sold in the week preceding the survey	.
3.4	Median sales volume of malaria blood tests among outlets with any sales of that test type	Median number (N) of malaria blood tests conducted/ sold in the week preceding the survey among outlets with any sales of that test type	Median N & IQR	Number of malaria blood tests conducted/ sold in the week preceding the survey among outlets with any sales of that diagnostic type.	.
4.1	Market share of antimalarials	Proportion of AETD reportedly sold or distributed in the previous week by outlet type and antimalarial type among all AETDs sold/distributed in the previous week.	% & CI	Number of AETDs sold/distributed for a specific antimalarial drug category and outlet type	Total number of AETDs sold/distributed
4.2	Market share of malaria blood testing overall	Proportion of malaria blood tests reportedly sold or distributed in the previous week by outlet type and malaria blood test type (RDT, microscopy) as a percentage of all malaria blood tests sold/distributed in the previous week.	% & CI	Number of malaria blood tests sold/distributed for a specific blood test type (RDT, microscopy) and outlet type.	Total number of malaria blood tests sold/distributed
4.3	Market share of antimalarials by brand and manufacturer	Proportion of antimalarials sold or distributed in the previous week by outlet type and top brand-manufacture among all antimalarials sold/distributed in the previous week.	% & CI	Number of AETDs sold/distributed of a specific antimalarial drug brand/manufacturer	Total number of AETDs sold/distributed
5.1	Sales price of antimalarial tablet AETDs to customers	Median retail price of adult equivalent treatment dose (AETD) for tablet formulation types in (a) USD and (b) local currency	Median & IQR	Median price for tablet formulation antimalarial AETD (of audited antimalarials with price information) - For retail level, this is the price to consumers/ patients - For wholesale level, this is the price to retail outlets	.
5.2	Sales price of pre-packaged ACTs to customer	Median retail price of selected pre-packaged therapy (a) USD and (b) local currency	Median & IQR	Median price for pre-packaged ACTs (of audited antimalarials with price information) - For retail level, this is the price to consumers/ patients	.

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				- For wholesale level, this is the price to retail outlets	
5.3	Sales price of malaria blood testing to customers	Median retail price of blood testing to consumers including any consultation or service fees (a) USD and (b) local currency	Median & IQR	Median total blood test price (among outlets surveyed with malaria blood testing price information) - For retail level, this is the price to consumers/ patients - For wholesale level, this is the price to retail outlets	.
6.1	Purchase price of antimalarial AETDs from suppliers	Median purchase price of adult equivalent treatment dose (AETD) for tablet formulation types from the outlets supplier (e.g. wholesaler) (a) USD and (b) local currency	Median & IQR	Median price paid to supplier for tablet formulation antimalarial AETD (of audited antimalarials with purchase price information) - For retail level, this is the price to consumers/ patients - For wholesale level, this is the price to retail outlets	.
6.2	Purchase price of malaria RDTs from suppliers	Median purchase price of RDTs from the outlet's supplier (e.g. wholesaler) (a) USD and (b) local currency	Median & IQR	Median price paid to supplier for RDTs (of audited RDTs with purchase price information) - For retail level, this is the price to consumers/ patients - For wholesale level, this is the price to retail outlets	.
7.1	Stock outs of antimalarials	Proportion of outlets reporting stockouts of key antimalarials on the day of survey, among all antimalarial-stocking outlets	% & CI	Number of outlets reporting being out of stock of antimalarials on the day of the survey that they would usually have in stock	All antimalarial-stocking outlets
7.2	Stock outs of RDTs	Proportion of outlets reporting stockouts of mRDTs on the day of the survey, among RDT-stocking outlets	% & CI	Number of outlets reporting being out of stock of malaria diagnostics on the day of the survey that they would usually have in stock	All RDT-stocking outlets
Additional provider interview indicators					
8.1	Outlet characteristics	Opening hours: Proportion of outlets open in the daytime only, evening only, both, or other	% & CI	Number of outlets open in each time category	Total number of outlets found eligible and participated in the provider interview
8.2	Outlet characteristics	Proportion with license: Proportion of outlets with the relevant license and registration to sell medicines (note this question should be tailored to country-specific licensing policy or processes for private sector outlet type included e.g. license to sell pharmaceuticals)	% & CI	Number of outlets with the relevant license and registration to sell medicines	Total number of outlets found eligible and participated in the provider interview

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8.3	Outlet characteristics	Proportion with govt inspection: Proportion of outlets who have received a government inspection in the last year (note this question should be tailored to country-specific policy or process on regulation of each private sector outlet type included e.g. pharmacy regulatory bodies and their inspection process)	% & CI	Number of outlets who have received a government inspection in the last year	Total number of outlets found eligible and participated in the provider interview
9.1	Staff characteristics	Staff health qualifications: Proportion of outlets with at least one member of staff with selected health qualifications (pharmacist, CHW, etc.)	% & CI	Number of outlets with at least one member of staff with selected health qualifications (pharmacist, CHW, etc.)	Total number of outlets found eligible and participated in the provider interview
9.2	Staff characteristics	Staff malaria training: Proportion of outlets with at least one member of staff who have received any training on malaria; by training type/ topic (treatment, diagnosis, monitoring/ surveillance, all, or other)	% & CI	Number of outlets with at least one member of staff who have received any training on malaria; by training type/ topic (treatment, diagnosis, monitoring/ surveillance, all, or other)	Total number of outlets found eligible and participated in the provider interview
10.1	Quality Control & Compliance	Proportion of products that meet a minimum quality standard (within expiration date, has expected/ nationally mandated registration number(s) and any other quality criteria relevant to the given country of implementation)	% & CI	Number of products audited that meet quality standards	Total number of products audited
10.2	Quality Control & Compliance	Proportion of outlets that meet a minimum quality standard for product storage (dry, dark area off floor)	% & CI	Number of outlets audited that meet quality standards	Total number of outlets audited
11.1	Respondent malaria knowledge	Proportion of respondents who identify an ACT (or specific front-line treatment(s)) as the most effective drug for uncomplicated malaria	% & CI	Number of respondents reporting ACT as most effective treatment	Total number of outlets found eligible and participated in the provider interview
11.2	Respondent malaria knowledge	Proportion of respondents who have heard of and used an RDT for malaria	% & CI	Number of respondents who have heard and used an RDT for malaria	Total number of outlets found eligible and participated in the provider interview
11.3	Respondent malaria knowledge	Proportion of respondents who would provide an antimalarial to a client IF they had a negative malaria blood test and reasons WHY	% & CI	Number respondents who would provide an antimalarial to a client with a negative malaria blood test and count of reasons provided for treating a negative test	Total number of outlets found eligible and participated in the provider interview
12.1	Outlet tech/ digital access & use	Proportion of outlets with functional infrastructure and technology available for the 30 days preceding the interview (where infrastructure includes water, electricity; technology includes internet, phone, tablet/ computer. These may be edited based on needs or expectations in a given country of implementation e.g. countries doing tablet-based surveillance)	% & CI	Number of outlets with selected infrastructure and technology	Total number of outlets found eligible and participated in the provider interview
13.1	Outlet participation in monitoring	Proportion of outlets that report any information on malaria cases, by selected reporting system or forms (expected information systems or forms used to capture data from	% & CI	Number of outlets reporting and using select reporting forms **this requires tailoring to country context	Total number of outlets found eligible and participated in the provider interview

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		the private sector should be defined for each country of implementation (e.g. IDSR, HMIS, DHIS2, project-specific NGO lead reporting etc.)		and knowledge of the expected reporting processes for malaria case and commodity stock management**	
14.1	Business practices	Proportion of outlets that report selling antimalarials or RDTs to be resold at another outlet (e.g. sells wholesale/ supplies other outlets/ sellers)	% & CI	Number of outlets that report selling antimalarials or RDTs to be resold at another outlet (e.g. sells wholesale/ supplies other outlets/ sellers)	Total number of outlets found eligible and participated in the provider interview
14.2	Business practices	Proportion of outlets that sell antimalarials or RDTs online	% & CI	Number of outlets that sell antimalarials or RDTs online	Total number of outlets found eligible and participated in the provider interview
14.3	Business practices	Customers: Proportion of malaria commodities sold to each customer type (e.g. local retail customers, online retail, other retail businesses, other resale/ wholesale businesses)	% & CI	Number of outlets reporting selling antimalarials or RDTs to each customer type	Total number of outlets found eligible and participated in the provider interview
14.4	Business practices	Suppliers: Proportion of malaria commodities purchased from each supplier type (e.g. pharmacy, wholesale, importer, manufacture, etc.)	% & CI	Number of outlets reporting purchasing antimalarials or RDTs to each supplier type	Total number of suppliers reported
14.5	Business practices	Distribution methods: Proportion of outlets reporting use various distribution methods to deliver antimalarials or RDTs to customers	% & CI	Number of outlets reporting use various distribution methods to deliver antimalarials or RDTs to customers	Total number of outlets found eligible and participated in the provider interview
14.6	Business practices	Delivery methods: Proportion of outlets reporting use of various distribution methods to receive antimalarials or RDTs from suppliers	% & CI	Number of outlets reporting use of various distribution methods to receive antimalarials or RDTs from suppliers	Total number of outlets found eligible and participated in the provider interview
14.7	Business practices	Payment terms: Proportion of outlets reporting using different method of payment for antimalarials (e.g. cash, credit, etc.) to purchase from suppliers	% & CI	Number of outlets reporting using different method of payment for antimalarials to purchase from suppliers	Total number of outlets found eligible and participated in the provider interview
14.8	Business practices	Wholesale market stability: Proportion of outlets reporting market instability or fluctuations (e.g. stock outs, price changes) that impact their purchasing practices	% & CI	Proportion of outlets reporting market instability or fluctuations (e.g. stock outs, price changes)	Total number of outlets found eligible and participated in the provider interview

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Appendix 2. Sampling

Sample size of retail outlets

A series of calculations were carried out to identify the minimum sample size requirements for retail outlets needed to estimate key study indicators with a precision ≤10 percentage points in all states and separately in urban and rural areas. Data on the expected composition of outlets within clusters (localities or wards) were based on the previous ACTwatch study conducted in Nigeria in 2015.

The number of sampled clusters and resulting number of outlets are outlined in tables A and B below. The sample sizes aimed to be sufficient to estimate the market indicators (as proportions) with an estimated minimum level of absolute precision of 10%. The following formula and assumptions have been used to estimate the number of outlets required:

$$\boldsymbol{n = \text{deff} \times \frac{\left[Z^2_{1-\alpha} \times P(1-P)\right]}{d^2}}$$

Where:

n =	desired sample size (by urban/rural area and by outlet type)
P =	assumption concerning the proportion of the population, equal to 0.5 (which is the most conservative level)
$Z_{1-\alpha}$ =	normal value of standard deviation 1-α corresponding to an error α (type I) with a two-tailed test, equal to 1.96
d =	the desired absolute precision of the estimate / half the width of the desired confidence interval, equal to 0.1.
deff =	the sampling effect in the case of multi-stage sampling, estimated as 2 in this study.

Sampling approach

The number of geographic units sampled was based on the estimates for expected number of interviews shown in Table B. The study adapted the geographic cluster sampling approach used by ACTwatch[24] and other market surveys. The main sampling approach adopted for market surveys is to sample a set of administrative units (geographical clusters) with a corresponding population of around 10,000 to 15,000 inhabitants.

The appropriate administrative unit in Nigeria corresponding to this desired population size is the locality (or ward). Localities are an administrative unit grouped together within LGAs – the next highest administrative unit, themselves grouped by state. There are 774 LGAs across all 36 states in Nigeria. There are 17, 44 and 20 LGAs in Abia, Kano, and Lagos states, respectively. These are subdivided into 267, 484 and 377 localities in Abia, Kano, and Lagos states, respectively.[25]

The sampling approach followed a two-stage cluster probability proportional to size (PPS) design, stratified by urban and rural, with the following steps:

- Within each of the three states included in the study, all LGAs were listed, with population size and urban/rural designation.
- Using a PPS approach, the predetermined number of urban and rural LGAs were selected within each state
- For selected LGAs all localities were listed with population size and urban/rural designation.

[24] The sampling methods proposed for Nigeria will be generalized to other countries on the basis of an analysis of population and outlet density by city, other urban clusters, and rural areas in each country. The aim of the sampling strategy is to meet minimum sample size requirements while minimizing the logistical burden and travel costs (and fieldwork time).

[25] https://www.citypopulation.de/en/nigeria/admin/

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- Using a PPS approach 5 localities per urban/ rural LGA were selected (where localities are the primary sampling unit, as they represent the areas for which censuses were conducted; the number of primary sampling units taken under PPS is fixed, 5 is an arbitrary, but realistic number given the expected number of localities per LGA and the need for a pragmatic and logistically feasible sampling strategy).

We expect to sample the following numbers of clusters:

Table A Expected number of LGAs and localities.

State	Urban / Rural	Number of LGAs	Number of Localities
Abia	Urban	5	25
	Rural	4	20
Kano	Urban	6	30
	Rural	4	20
Lagos	Urban	5	25
	Rural	1	5
TOTAL		25	125

Guided by the sample size calculations above, **a total of 125 clusters were selected**.

Table B. Expected number of outlets to be censused in 2024 ACTwatch Lite Nigeria

	Abia	Kano	Lagos	Total
Type of outlet	Expected number of interviews based on 2015 ACTwatch data			
	Urban Only			
Private health facilities*	75	5	88	**168**
Pharmacies	75	0	93	**168**
PPMVs	550	125	562	**1237**
Total	700	130	743	**1573**
	Rural Only			
Private health facilities	8	0	0	**8**
Pharmacies	8	0	0	**8**
PPMVs	56	90	5	**151**
Total	72	90	5	**167**
	Urban and Rural			
Private health facilities	83	5	88	**176**
Pharmacies	83	0	93	**176**
PPMVs	606	215	567	**1388**
Total	**772**	**220**	**748**	**1740**

**Private health facilities including hospitals, clinics and labs.*

After the clusters were selected, the lists of pharmacies and private facilities were requested and used to estimate the number of outlets of each type expected to be found in the selected clusters.

Census: In the selected health areas, all facilities, businesses, outlets with the potential to distribute antimalarials or RDTs were identified and screened for participation in the study.

Identifying retail outlets: The aim of the retail outlet survey is to identify all outlets in the selected health areas that currently stock antimalarials or tests for malaria (RDT or microscopy), or that report having stocked up in the last three months prior to the survey. It is well known that, in addition to official retail outlets, medicines are often sold through "unofficial" channels (without official authorization to open issued

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by the medicines sales regulatory authority). In some contexts, these unofficial channels are an important source of medical commodities in geographically isolated or low-income areas. Consequently, understanding their stocking and pricing practices is very important, and we took care to include them in the survey.

In each of the localities involved in the study, all retail outlets with the potential to sell or distribute antimalarials or tests to a consumer were sampled. A full census was carried out to enumerate all outlets with the potential to stock malaria commodities.

Retail outlets were identified using 3 approaches:

- Official lists of various outlet types as available (e.g. list of pharmacies)
- Consultation with local authorities and officials in the selected health districts/areas. Supervisors identified key informants who guided them to outlets with the potential to sell medicines, which may have included health officials, local politico-administrative authorities, and other well-informed community members. In discussions with these key informants, the interviewers obtained a list of potential retail outlets and drew up a data collection plan.
- Finally, the "snowball" technique was used by asking outlets included in the survey through approaches 1 and 2 to identify other outlets with the potential to stock medicines in the area.

Closed outlets were recorded. If the outlet is not definitively closed, the investigators made two additional visits to these outlets before recoding the outlet/ provider as unavailable for screening or interview.

Wholesaler sample size*:* Little is known about the number of formal pharmaceutical and medical wholesale companies in Nigeria. The survey interviewed the largest Nigerian distribution companies based in Lagos, Abia, or Kano as identified from stakeholders such as the Ministry of Health during study initiation and supplemented by targeted sampling if necessary. Nigeria has an active informal private health sector and kiosks and market stalls sourced goods from larger informal market stalls. The survey attempted to gather information from informal wholesalers when they could be identified on the basis of the contact details provided.

Identification of wholesale outlets: At each retail outlet where an interview was conducted (eligible and consenting outlets) the questionnaire captured (1) if the retail outlet also sells malaria commodities wholesale and (2) collected information on the retail outlets primary suppliers (name, location, business practices). The information from (2) on primary suppliers was compiled to form a running sampling frame during the retail survey fieldwork. Once fieldwork was completed in a given cluster, the remote research team drew a stratified random sample of identified suppliers, stratifying by the number of times the wholesaler is mentioned by outlets in a locality. Stratification ensured that important wholesalers were not overlooked by the random nature of the wholesaler sampling process.

A current list of wholesalers selected for the study was available to study supervisors and was maintained and updated in real time, to enable supervisors to plan field activities to meet sampling requirements at both retail and wholesale levels. Only one level of the supply chain was tracked using this approach. Further data on the import and wholesale of antimalarial products came from importers at national level. These

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companies were selected on a targeted basis and invited to participate in an interview with selected team leaders or supervisors responsible for this activity.

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Appendix 3. Calculating AETD

Definition: Antimalarial drugs are manufactured from a variety of active pharmaceutical ingredients, dosage forms, strengths and pack sizes. ACTwatch uses the AETD as the standard unit for pricing and sales/distribution analyses. An AETD is defined as the number of milligrams (mg) of an antimalarial drug required to treat an adult weighing 60 kilograms (kg). For each generic antimalarial drug, the AETD is defined as the number of mg recommended in the WHO guidelines for the treatment of uncomplicated malaria in areas of low drug resistance. Where the WHO treatment guidelines do not cover a specific generic, AETD is defined on the basis of peer-reviewed research or the treatment recommended by the product manufacturer for a 60 kg adult. The table below lists the definitions of AETD used in this report.

While it is recognized that the use of AETDs can oversimplify and ignore many of the complexities of drug consumption and utilization, this analytical approach has been chosen because it standardizes drug dosages across drug types and across countries (which can sometimes vary), thus enabling comparisons on prices and volumes calculated on the basis of an AETD.

Additional considerations:

- When combination therapies consist of two or more active antimalarial ingredients packaged together (co-formulated or co-blistered), the concentration of a single main ingredient is issued. Artemisinin derivative is used as the main ingredient for ACT AETD calculations.
- Co-cloned combinations are generally assumed to be a 1:1 ratio of tablets, unless otherwise specified during fieldwork or on manufacturers' websites.
- Sulfamethoxpyrazine-pyrimethamine is assumed to deliver the same full adult dose as sulfadoxine-pyrimethamine.

Calculation: Information collected on the drug concentration and unit size indicated on the product packaging was used to calculate the total quantity of each active ingredient found in the package. The number of AETDs in a unit was calculated[26]. The number of AETDs in a monotherapy is calculated by dividing the total amount of active ingredient in the unit by the AETD (i.e. the total number of mg required to treat a 60 kg adult). The number of AETDs for combination therapy is calculated by dividing the total quantity of active ingredient used as the basis for the AETD by the AETD.

Antimalarial AETD

Antimalarial Generic [Ingredient used for the dose in mg of AETD].	Dose used to calculate 1 AETD (mg required to treat a 60 kg adult)	Source
Amodiaquine	1800mg	WHO model form, 2008
Artemether	960mg	WHO use of antimalarial drugs, 2001 Note: this includes a recommended loading dose of 4 mg / kg on the first day, followed by a six-day course of 2 mg / kg once daily.
Artemether-Lumefantrine [Artemether]	480mg	WHO malaria treatment guidelines 3rd edition, 2015

[26] *The unit depends on the dosage form of the drug. The unit for antimalarials in tablet, suppository or granule form is the pack. The unit for injectable antimalarials is the ampoule. The unit for antimalarial syrups and suspensions is the bottle.*

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Antimalarial Generic [Ingredient used for the dose in mg of AETD].	Dose used to calculate 1 AETD (mg required to treat a 60 kg adult)	Source
Artemisinin-Naphthoquine [Artemisinin]	2400mg	WHO use of antimalarial drugs, 2001
Artemisinin - Piperaquine [Artemisinin]	504mg	Thanh NX, Trung TN, Phong NC et al. 2012. Efficacy and tolerability of artemisinin-piperaquine (Artequick®) versus artesunate-amodiaquine (Coarsucam™) for the treatment of uncomplicated Plasmodium falciparum malaria in south-central Vietnam. Malaria Journal, 11 :217.
Arterolane- Piperaquine [Arterolane]	450mg	Patil C, Katare S, Baig M, Doifode S. Fixed-dose combination of arterolane and piperaquine: a new perspective in antimalarial treatment. Ann Med Health Sci Res. 2014 Jul; 4(4):466-71. doi: 10.4103/2141-9248.139270
Artesunate	960mg	WHO use of antimalarial drugs, 2001 Note: this includes a recommended loading dose of 4 mg / kg on the first day, followed by a six-day course of 2 mg / kg once daily.
Artesunate-Amodiaquine [Artesunate]	600mg	WHO malaria treatment guidelines 3rd edition, 2015
Artesunate-Mefloquine [Artesunate]	600mg	WHO malaria treatment guidelines 3rd edition, 2015
Artesunate- Sulfadoxine-Pyrimethamine [Artesunate]	600mg	WHO malaria treatment guidelines 3rd edition, 2015
Atovaquone-Proguanil [Atovaquone]	3000mg	WHO malaria treatment guidelines 3rd edition, 2015
Chloroquine	1500mg	WHO malaria treatment guidelines 3rd edition, 2015
Dihydroartemisinin-piperaquine [Dihydroartemisinin].	360mg	WHO malaria treatment guidelines 3rd edition, 2015 Note: AETD under the new 2015 guidelines is now 480 mg, whereas 360 mg was indicated in the previous guidelines. Product availability for prepackaged adult DHA PPQ in 2015 was still most often 360 mg administered over a 3-day cycle on a total of 9 tablets (40/320).
Dihydroartemisinin-Piperazine-Trimethoprim [Dihydroartemisinin].	256mg	Manufacturer's guidelines (Artecxin - Medicare Pharma; Artecom - Ctonghe)
Dihydroartemisinin-sulfadoxine-pyrimethamine [Dihydroartemisinin].	360mg	Manufacturer's guidelines (Dalasin - Adams Pharma)
Hydroxychloroquine	2000mg	Manufacturer's guidelines (Plaquenil - Sanofi Aventis)
Mefloquine	1000mg	WHO model form, 2008
Quinine	10408mg	WHO model form, 2008
Sulfadoxine-pyrimethamine	1500mg	WHO model form, 2008

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Appendix 4. Weighting the datasets

Sampling weights were applied to the analysis of the 2024 Nigeria ACTwatch Lite data to account for variations in the probability of selection resulting from the sampling design.

ACTwatch Lite uses two types of sampling weights. One weight is for market share-based estimations, and excludes any outlets from the booster sample (if used). The other weight (main weight) is for all other (non-market share based) estimations and includes outlets from the booster sample (if used). Where no booster sample has been done in a study, the market share and main weights will be equal for any given outlet. Where a booster sample has been included in the study, the specific outlet types that were included in the booster sample (typically health facilities and/or pharmacies) will have different values calculated for the two weights.

The sampling weights applied in the analysis are the inverse of the selection probability:

$$W_i = \frac{1}{a \times \frac{M_\alpha}{\sum M_\alpha}}$$

Where:

Mα = Estimated population size of the cluster
ΣMα Sum of estimated cluster population size across stratum
a = Number of selected clusters in the stratum

Sampling weights will be calculated at the study area (cluster) level and applied to all outlets within a given cluster, regardless of outlet type.

Market share weights:

Market share will be calculated using complete census data from the primary cluster sample only (i.e., the booster sample will not be included in the market share calculation). Cluster sampling weights should be determined using the sampling weight formula (Wi), where:

Mα = Estimated population size of the non-booster cluster
ΣMα = Sum of estimated non-booster cluster population size across stratum
a = Number of selected non-booster clusters in the stratum

Main weights:

Main weights are applied to all other report indicators (except market share). If no booster sample was conducted, the main and market share weights will be the same. If a booster sample was conducted, the main and market share weights will be the same for any given non-booster outlet type. For booster outlet types (typically pharmacies and/or private health facilities), the main sampling weight should be calculated using population data for the higher level administrative unit from which the booster sample was taken. i.e. using the sampling weight formula (Wi), where :

Mα = Estimated population size of the higher level administrative unit from which the booster sample was taken
ΣMα =Sum of estimated population size of the higher level administrative unit from which the booster sample was taken across stratum

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a = Number of selected higher level administrative units from which the booster sample was taken in the stratum

Note
A sampling frame based on population size is used to select the sample, as there are no precise estimates of the total number of outlets per geographic or administrative unit that may be eligible for a market survey. The key assumption in using population figures for sampling and weighting is that the distribution of outlets and the flow of malaria commodities through them are correlated with population size.

Finite population correction
A finite population correction (FPC) is applied to the study estimates to account for the high proportion of health areas selected without replacement (where this exceeds 5% of the total). The FPC affects the standard errors of the estimates but does not alter the point estimates themselves.

Using weights and FPC
Once calculated (during data cleaning/management) the sample weights and FPCs are saved to the dataset, and used for all standard indicator estimation during analysis using Stata survey settings (svyset command). Details are provided in the accompanying Stata do files.

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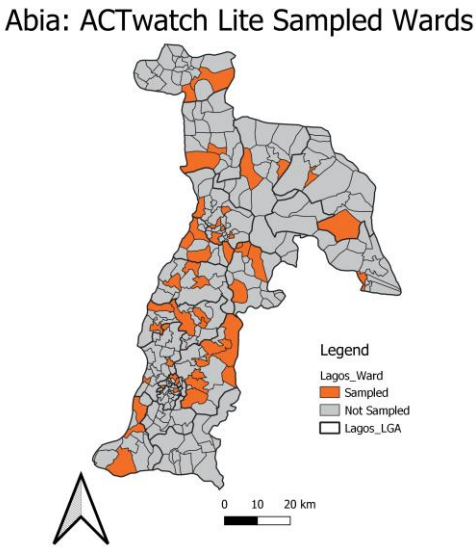
Appendix 5. Study area maps and lists

Abia



LGA	Ward	Estimated Population
Aba North	Eziama Ward	33957
Aba North	Industrial	9794
Aba North	Osusu 2	21526
Aba South	Eziukwu 1 / 2	51141
Aba South	Glocester	36072
Bende	Igbere 2	15729
Bende	Uzuakoli 1	13106
Ikwuano	Ibere 1	14124
Ikwuano	Oloko 1	19093
Isiala-Ngwa North	Amapu Ntigha	15616
Isiala-Ngwa North	Ngwaukwu 1 / Abayi / Amaorji	17147
Isiala-Ngwa North	Umuomainta	18622
Isiala-Ngwa South	Amaitolu	65789
Isiala-Ngwa South	Mbutu Ukwu / Anya Mbutu	22843
Isiala-Ngwa South	Ngwaobi	8834
Isiala-Ngwa South	Osokwa	105268
Isiala-Ngwa South	Ovuokwu	41196
Isuikwuato	Eluama	31954
Isuikwuato	Oguduasa / Acha / Amachara	12101
Obi Nwga	Abayi 1	15510
Obi Nwga	Abayi 2	74733
Obi Nwga	Akumaimo	61568
Obi Nwga	Mgboko Itungwa	35774
Obi Nwga	Mgboko Umuanunu 2	32894
Obi Nwga	Ndiakata	17724
Ohafia	Ameke 2	16123
Ohafia	Ania	20265
Osisioma Ngwa	Amaitolu	65789
Osisioma Ngwa	Amator	9595
Osisioma Ngwa	Amavo Etiti	3812

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Osisioma Ngwa	Ode-Okwu	68883
Osisioma Ngwa	Uratta Amaise	28246
Ugwunagbo	Owerri Aba / Ward Four	36357
Ukwa West	Asa South 1 / 2	12881
Ukwa West	Ogwe	13620
Umuahia North	Isingwu	6212
Umuahia North	Oriendu	13226
Umuahia North	Urban 1	26897
Umuahia North	Urban 2	50802
Umuahia South	Ahiaukwu A / Amangwu	34628
Umuahia South	Ohiocha	16377
Umuahia South	Omaegwu	21270
Umuahia South	Ubakala A	40762
Umu-Nneochi	Lekwesi	18624
Umu-Nneochi	Leru	7304

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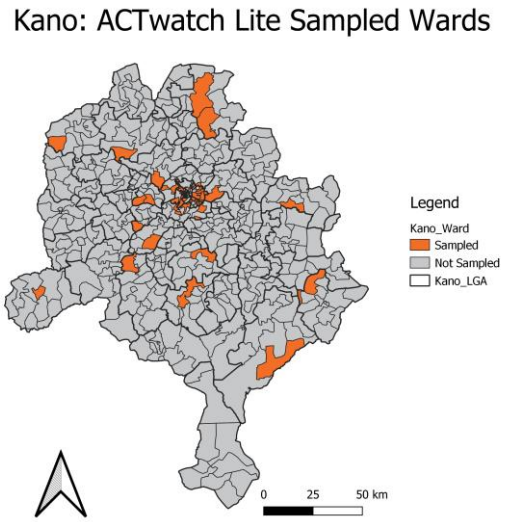
Kano



LGA	Ward	Estimated Population
Ajingi	Unguwar Bai	18330
Bichi	Muntsira	37541
Bichi	Saye	29377
Bunkure	Bono	20497
Dala	Bakin Ruwa	23526
Dala	Dogon Nama	24408
Dala	Gobirawa	144034
Dala	Gwammaja	36916
Dala	Kofar Ruwa	102736
Dala	Madigawa	22450
Dala	Yalwa	31845
Dawakin Kudu	Tanburawa	38012
Dawakin Tofa	Gargari	38102
Dawakin Tofa	Jalli	35078
Fagge	Sabon Gari West	40870
Fagge	Yammata	45738
Gaya	Gaya North	46064
Gezawa	Mesar Tudu	24307
Gezawa	Tsamiya Babba	81187
Gwale	Diso	10965
Gwale	Dorayi	398398
Gwale	Goron Dutse	33661
Gwale	Gyaranya	16688
Gwale	Sani Mai Nagge	55995
Kano Municipal	Sharada	45723
Kano Municipal	She She	18538
Kano Municipal	Tudun Nufawa	18678
Kano Municipal	Zango	10987
Kumbotso	Chiranchi	189227
Kumbotso	Dan Maliki	214259

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Kumbotso	Garun Gawa	77942
Kura	Rigar Duka	18236
Madobi	Kauran Mata	14653
Minjibir	Kwarkiya	25501
Nassarawa	Giginyu	133907
Nassarawa	Hotoro North	148279
Nassarawa	Hotoro South	54655
Nassarawa	Kaura Goje	55282
Nassarawa	Kawaji	99103
Rimin Gado	Gulu	18681
Rogo	Rogo Sabon Gari	25432
Tarauni	Babban Giji	37471
Tarauni	Hotoro	54508
Tarauni	Unguwa Uku Cikin Gari	21562
Tarauni	Unguwa Uku Kauyen Alu	45516
Tarauni	Unguwar Gano	19806
Tofa	Wangara	8726
Ungogo	Tudun Fulani	136883
Wudil	Darki	20675
Wudil	Indabo	15506

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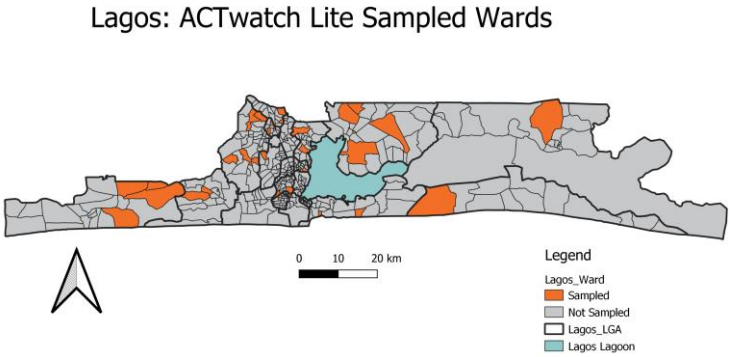
Lagos



LGA	Ward	Estimated Population
Agege	Awori Oniwaya	26682
Agege	Okekoto	24465
Alimosho	Abaranje / Okerube	133346
Alimosho	Aboru	51975
Alimosho	Agbelekale	113799
Alimosho	Alagbado / Alakuko	105793
Alimosho	Bada-Megida	143750
Alimosho	Gowon Estate	21139
Alimosho	Oke-Odo	67949
Badagry	Ajara Vetho	85776
Badagry	Aradagun-Mowo	37721
Epe	Agbowa 1	6412
Eti Osa	Ajiran / Osapa	43766
Eti Osa	Ikate / Lekki	56960
Eti Osa	Sangotedo	53447
Ibeju Lekki	Iwerekun 1	121305
Ifako-Ijaye	Alakuko Ajegunle	46788
Ikeja	Orile Ikeja	12814
Ikorodu	Abosan	137501
Ikorodu	Agura / Gberigbe	138231
Ikorodu	Ajaguro	174152
Ikorodu	Baiyeku / Orita / Offin	8862
Ikorodu	Erikorodo	48266
Ikorodu	Isele	10218
Ikorodu	Olorunda	14014
Kosofe	Idera	10500
Lagos Mainland	Otto	6022
Oshodi-Isolo	Ilamoshe	32319
Surulere	Jinadu Aiyetoro	29675
Surulere	Sanusi 1	13649

Appendix 6. Qualitative data collection information sheets, consents and tool

INFORMATION SHEET
TO THE BUSINESS FOCAL POINT: [Greeting]

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Hello, my name is _____. I work for Transsil, conducting research for Population Services International, a non-governmental organization that focuses on the health of Nigerians.

Why are we conducting this research?
We are conducting a study to determine the availability of antimalarials and malaria diagnostic testing services and products in the private health sector in three states in Nigeria (Abia, Kano & Lagos). The study also aims to describe the private health sector supply chain for antimalarials, including national and local distribution networks.

We will visit the head offices of registered medicine importers / distributors / manufacturers in Nigeria and invite them to participate in the study. The main purpose of this survey is to enable the Government of Nigeria and its public health partners to use the aggregated data to design interventions aimed at strengthening the quality of malaria case management in the private health sector.

We believe that your experience in the supply chain of antimalarials and RDTs in Nigeria can contribute to our understanding and knowledge of how we can improve malaria treatment in Nigeria. If you agree to take part, you will be one of around 15 importers included for qualitative interview in this study. You were selected randomly from our list of all importers in the geographic areas covered by the study.

What information do we collect?
We would like to ask you questions about

- The types of antimalarials and rapid diagnostic tests (RDTs) you stock, how you decide on your pricing structure, and the revenues these products generate for your business.
- Your distribution network and distribution practices, including the size and coverage of your distribution network and the location of your own distribution centers and/or wholesalers.
- Your main commercial competitors for antimalarials and RDTs.
- Your views on the regulation of importation, distribution, wholesale and retail businesses in your sector.

With your permission, we would like to record details of the antimalarials and RDTs you usually stock, including information on your purchase and sales prices. We would also like to record details of the location of your branches or warehouses and the quantity of products they usually receive, to help us better understand how antimalarials and RDTs circulate in the country.

We would like to audio record the interview for transcription and analysis later; however, you may consent to the interview but not the recording.

How long will the interview last?
The interview with you should take around 60 minutes, depending on the size and scope of your sales network.

Are there any advantages to taking part in the study?
There is no individual benefit to participation, but by answering our questions you will help us improve our understanding of how to increase the availability of malaria diagnosis and treatment for the benefit of the population living in Nigeria. There is no financial benefit associated with this study, nor can we supply or purchase medicines from your point of sale or store.

What are the risks of participating in this study?
The potential risks for participants in this study are breach of confidentiality and loss of time. Rest assured, we are not here to inspect your business and no directly identifying information about this company will be passed on to anyone outside our research team. As far as time is concerned, we are available to talk to you now or can arrange a time that is most convenient for you. This interview is not intended for tax or legal purposes. Your information will be aggregated with others and treated in the strictest confidence.

Who will have access to the information I provide?
We will not share individually identifying information about you or your business practices. The results of this research will be shared in summary form, without the identities of companies or individuals. For example, we will present average results based on information received from all importers / distributors / manufacturers included in this study. We will not associate you with a certain brand of antimalarial or RDT if you are the only importer of that product in Nigeria. We will share this information in summary form with other interested organizations or individuals who find it useful for malaria case management in the private health sector. We may produce reports, presentations and publications using the data collected in this study, and anonymized data may be used by others for future research without the need for further informed consent.

What happens if I refuse to participate?

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Participation in this study is voluntary. You are free to decide whether to participate. Even if you agree, you can change your mind at any time. You can refuse to answer any specific question or stop the interview at any time. If you choose not to answer a question, stop the interview, or not participate in the study at all, this will not affect your working conditions now or in the future.

And if I have any questions?

If you have any questions, you can ask them now or later. If you have any questions at a later date, please contact the following people:

Dr Fatima Bunza, Co-investigator PSI Nigeria fbunza@psinigeria.org +2348065598133	Dr. Goodwin Ntadom Principal investigator National Coordinator, National Malaria Elimination Programme, Federal Ministry of Health, Abuja. ntadomg@yahoo.com

If you have any concerns about the conduct of this study, you can also contact NHREC (Nigerian Health Research Ethics Committee), Federal Ministry of Health, Federal Secretariat Complex Shehu Shagari Way, Garci, Abuja P.M.B. 083, Garki-Abuja. Tel: 234-9-523-8367

At the end of the study, a copy of the results will be given to each of the following structures:

- National Malaria Elimination Program (NMEP)
- Nigerian Health Research Ethics Committee (NHREC)

THE PARTICIPANT CAN NOW RECEIVE THE INFORMATION SHEET FOR SAFEKEEPING

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VERBAL CONSENT FORM

Study title	Principal Investigators
PRIVATE HEALTH SECTOR MALARIA OUTLET SURVEY, FEDERAL REPUBLIC OF NIGERIA 2024	Paul Bouanchaud, Population Services International (PSI) 1120 19th St NW, Washington DC, 20036 USA pbouanchaud@psi.org Godwin Ntadom, National Malaria Elimination Program (NMEP), Federal Ministry of Health, Abuja. ntadomg@yahoo.com

FOR THE PARTICIPANT:
I read (or had a witness of my choice read) and understood the information on the purpose of the study *"PRIVATE HEALTH SECTOR MALARIA OUTLET SURVEY, FEDERAL REPUBLIC OF NIGERIA 2024"*. I had the opportunity to ask any and all questions I had to the members of the research team. The answers were provided in a language I understood. The members of the research team also asked me questions to assess my understanding of the study's objectives.

I understand the advantages and disadvantages of my participation. I also understand that:

- My participation in the study is voluntary and I may withdraw at any time without having to give reason.
- My personal data will be deidentified, and I authorize their consultation only by persons collaborating in this research under the responsibility of the investigators.
- The researchers involved in this study will have access to any personally identifying data in strict confidence.
- The information collected may be published anonymously in scientific journals.
- Research files could be inspected by Nigeria's ethics committee to ensure that the study is running smoothly.

It was clearly explained to me, and I understood that my consent did not relieve the research organizers of their responsibility.

ORAL CONSENT TO PROCEED
Would you like to take part in the study?
Check if respondent agrees to participate ☐
Check if respondent agrees to be audio recorded ☐

For the attention of the investigator:
I have read the entire consent form to the study participant and the participant has voluntarily agreed to participate in the study. The participant has given his consent.

Investigator's name:

Signature: _____ Date: __ __ /__ __ /2024

I, the undersigned, promise to keep confidential the information I have received at the points of sale. I certify that I have explained all the details of the study to the participant indicated above and certify that he has understood and given his consent.

Investigator's name:

Signature: _____ Date: __ __ /__ __ /2024

THE PARTICIPANT CAN NOW RECEIVE AN INFORMATION SHEET FOR SAFEKEEPING

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ACTwatch Lite: Qualitative Interview Guide

Complete the table below before starting the interview:

Metadata	1	Interview ID	
	2	Company name	
	3	Company type (importer, manufacture, etc.)	
	4	Company location	
	5	Name of respondent	
	6	Position or title of respondent	
	7	Contact info for respondent or company	
	8	Number of years' experience in this sector in Cameroon	
Eligibility	9	Do you [import/manufacture/distribute] antimalarials?	|__|Yes |__|No
	10	Do you [import/manufacture/distribute] rapid diagnostic tests for malaria (RDTs)?	|__|Yes |__|No
Consent	11	Information sheet provided	|__|Yes |__|No
	12	Consent obtained	|__|Yes |__|No

Once consent is obtained, use the following guide to interview the participant. Complete the columns for antimalarials and RDTs as applicable, noting any differences.

Note: Record 'NA' for not applicable or 'SAME' if there is no difference between RDTs and antimalarials

Section	No.	Question	Responses regarding antimalarials:	Responses regarding RDTs:
Introduction	1.a	Can you tell me about your role in the company? What do you do?		
Products	2.a	Do you have a list of your malaria products?	|__|Yes |__|No	|__|Yes |__|No
	2.b	If available, can you share this list with us? Interviewer: If they share, please take a snapshot of the list and send to the designated Whatsapp chat	|__|Yes |__|No	|__|Yes |__|No
	2.c	Do you have exclusive import agreements for certain brands of [antimalarials and/or RDTs]? -> If yes, which brands? Exclusive importer agreement is referring to an agreement an importer might have with a manufacturer or regulator to have the right to be the only importer of a particular medicine or product.		
	2.d	How do you get information about [antimalarials and/or RDTs] on the market?		
	2.e	How do you decide which [antimalarials and/or RDTs] to [import/ distrubute/ manufacuter]?		
	2.f	What are the usual timelines for [importing/ distributing/ manufacturing] of [antimalarials and/or RDTs]? i) Do these timescales change greatly depending on the type?		
Pricing	3.a	How do you determine the sale price of [antimalarial or RDTs]?		

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	3.b	Do you ever change your selling price for a given product? If so, why? Prompt: Do prices change according to order volume or customer type?		
	3.c	Do your margins change according to the type of [antimalarials and/or RDTs]? If so, why?		
Sales revenue	4.a	What percentage of this companies sales revenue comes from [antimalarials and/or RDTs]? ?	|__||__|.|__| %	|__||__|.|__| %
	4.c	How does the contribution of [antimalarials and/or RDTs] to your company's total income change over the year?		
Distribution network and practices	5.a	Can you describe your distribution system? Include (1) where you obtain, and (2) how you distribute your [antimalarials and/or RDTs]		
	5.a.i	Does this company have its own distribution centers or wholesalers in Nigeria, i.e., branches? Where are they located?		
		What is the size and coverage of your distribution network [for antimalairals or RDTs] to distributors and wholesalers outside the company network? For example, how many states do you cover?		
		Where are your [antimalarials and/or RDTs] customers located? (States/ geopoliticial zones)		
		What proportion of AM/RDT sales volumes is distributed through your own company's network, compared to other networks? Is this the same or different to how other products through your network?		
		Any other information on distribution networks? Additional prompts: number and frequency of delivery routes to distribution centers, in-house or third-party logistics?		
	5.a.ii	Do you take orders from customers (wholesale/retail) through online platforms or channels? If so, how does this work? How much of your antimalarial/RDT business is through online channels?		
	5.b	Do you (always) distribute [antimalarials and/or RDTs] to customers, or do they pick them up from you? --> If the company makes deliveries: Can you describe your distribution system for these customers?		
	5.c	Do you have minimum order requirements for wholesale customers purchasing [antimalarials and/or RDTs] outside your corporate network? What are the terms? Prompt: depending on minimum total price, minimum quantity, other conditions.		
Competition	6.a	Who do you see as your main commercial competitors for [antimalarials and/or RDTs]?		
	6.b	What makes these companies your competitors?		
	6.c	Are there any means of cooperation between companies at your level? --> If yes: Please describe Prompt: trade associations, price agreements, agreements on geographic concentration		

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Regulations	7.a	What is your opinion on the regulatory requirements for this type of business? i) Do you think they are reasonable? If not, why not? ii) How do they influence the way you run your business?		
	7.b	What do you think of the regulators' ability to enforce their regulations? i) Do you think most companies comply with the regulations? ii) Do you think sanctions are applied?		
	7.c	Would you like to see changes in the regulatory system? i) What would you like to see changed?		
	7.d	With specific reference to [antimalarials and/or RDTs], what do you know about the operation of the parallel market of unofficial imports and smuggling in this country? i) How do you think the parallel market has changed in recent years?		
	7.e	What is the biggest risk or challenge you face when it comes to [antimalarials and/or RDTs] in your company? i) What can be done about it?		
Wrap-up and questions from the respondent	8.a	Is there anything else you'd like to tell me about your experience with [antimalarials and/or RDTs]?		
	8.b	Thank you for your time today. Before we finish, is there anything else you'd like to raise or discuss about these topics? Do you have any questions for me?		

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Appendix 7. Quantitative data collection information sheet, consent form and tool

INFORMATION SHEET: FORMAL OUTLET INTERVIEW AND AUDIT

TO SERVICE PROVIDER/ MANAGER/ SALESPERSON:

[Greeting]

Hello, my name is _____. I work for Transsil, conducting research for Population Services International, a non-governmental organization that focuses on the health of Nigerians.

Why are we conducting this research?

We are conducting a study to determine the availability of antimalarials and malaria diagnostic testing services and products in the private health sector in three states in Nigeria (Abia, Kano & Lagos). The study also aims to describe the private health sector supply chain for antimalarials, including national and local distribution networks, readiness for digital surveillance and engagement, and digital capacity.

We will be visiting around 1,000 retail outlets and wholesalers in Nigeria. The main aim of the survey is to enable the Government of Nigeria and its public health partners to use the aggregated data to design interventions to strengthen the quality of malaria case management in the private health sector.

We believe that your experience in providing antimalarials to the community can contribute to our understanding and knowledge of how we can improve malaria treatment in Nigeria. If you agree to take part, you will be one of around 1000 outlets, wholesalers and importers included for quantitative interview in this study. You were selected to participate because your outlet is located in one of the study areas.

What information do we collect?

We would like to ask you several questions about

- Characteristics of this business, practices, and staff, and registration/ licensing
- The types of antimalarials and rapid diagnostic tests (RDTs) you carry, their prices, and the quantity sold/distributed.
- Suppliers of any malaria commodities you stock.

We would like to request your permission to view the antimalarials and RDTs available at this outlet so that we can accurately capture their product details. We may also ask to take photographs of each antimalarial product. In addition, we would like your permission to note the geographical coordinates of this location.

How long does the interview last?

We estimate the interview component will take around 45 minutes, but the product audit varies depending on the number of antimalarials and RDTs you have in stock today.

Are there any advantages to taking part in the study?

There is no individual benefit to participation, but by answering our questions you will help us improve our understanding of how to increase the availability of malaria diagnosis and treatment for the benefit of the population living in Nigeria. There is no financial benefit associated with this study, nor can we supply or purchase medicines from your point of sale or store.

What are the risks of participating in this study?

The potential risks for participants in this study are loss of time, breach of confidentiality, or potential retaliation. But rest assured, we're not here to inspect your business, and no specific directly identifying information about this outlet or the participants will be passed on to anyone outside our research team. This includes your name, the name of this business, the GPS coordinates of this business, or the fact that you specifically participated in this study. As far as time is concerned, we are available to speak with you now or later today, at a time that is most convenient for you. This survey is not intended for tax or legal purposes. Your information will be aggregated with others and treated in the strictest confidence.

Who will have access to the information I provide?

We will not share individually identifying information about you or other participants with anyone outside our research team. The knowledge gained from this research will be shared in summary form, without the identities of individuals or companies. We will share aggregate information with other interested organizations or individuals who find it useful for malaria case management in the private health sector. We may produce reports, presentations and publications using the data collected in this study, and anonymized data may be used by others for future research without the need for further informed consent.

What happens if I refuse to participate?

Participation in this study is voluntary. You are free to decide whether to participate. Even if you agree, you can change your mind at any time. You can refuse to answer any specific question or stop the interview at any time. If you choose not to answer a question, stop the interview, or not participate in the study at all, this will not affect your working conditions now or in the future.

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And if I have any questions?

If you have any questions, you can ask them now or later. If you have any questions at a later date, please contact the following people:

Dr Fatima Bunza, Co-investigator PSI Nigeria fbunza@psinigeria.org +2348065598133	Dr. Goodwin Ntadom Principal investigator National Coordinator, National Malaria Elimination Programme ntadomg@yahoo.com

If you have any concerns about the conduct of this study, you can also contact NHREC (Nigerian Health Research Ethics Committee), Federal Ministry of Health, Federal Secretariat Complex Shehu Shagari Way, Garki, Abuja P.M.B. 083, Garki-Abuja. Tel: 234-9-523-8367

At the end of the study, a copy of the results will be given to each of the following structures:

- National Malaria Elimination Program (NMEP)
- Nigerian Health Research Ethics Committee (NHREC)

THE PARTICIPANT CAN NOW RECEIVE AN INFORMATION SHEET FOR SAFEKEEPING

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INFORMATION SHEET: INFORMAL OUTLET AUDIT

TO SERVICE PROVIDER/ MANAGER/ SALESPERSON:

[Greeting]

Hello, my name is _____. I work for Transsil, conducting research for Population Services International, a non-governmental organization that focuses on the health of Nigerians.

Why are we conducting this research?

We are conducting a study to determine the availability of antimalarials and malaria diagnostic testing services and products in the private health sector in Nigeria. The study also aims to describe the private health sector supply chain for antimalarials, including national and local distribution networks, readiness for digital surveillance and engagement, and digital capacity.

We will be visiting around 1,000 retail outlets and wholesalers in Nigeria. The main aim of the survey is to enable the Government of Nigeria and its public health partners to use the aggregated data to design interventions to strengthen the quality of malaria case management in the private health sector.

We believe that your experience in providing antimalarials to the community can contribute to our understanding and knowledge of how we can improve malaria treatment in Nigeria. If you agree to take part, you will be one of around 1000 outlets, wholesalers and importers included for quantitative interview in this study. You were selected to participate because your outlet is located in one of the study areas.

What information do we collect?

We would like to ask you several questions about

- The types of antimalarials and rapid diagnostic tests (RDTs) you carry, their prices, and the quantity sold/distributed.
- Suppliers of any malaria commodities you stock.

Your name, the outlet name, and the outlet location will not be recorded.

We would like to request your permission to view the antimalarials and RDTs available at this outlet so that we can accurately capture their product details. We may also ask to take photographs of each antimalarial product.

How long does the interview last?

We estimate the interview component will take around 45 minutes, but the product audit varies depending on the number of antimalarials and RDTs you have in stock today.

Are there any advantages to taking part in the study?

There is no individual benefit to participation, but by answering our questions you will help us improve our understanding of how to increase the availability of malaria diagnosis and treatment for the benefit of the population living in Nigeria. There is no financial benefit associated with this study, nor can we supply or purchase medicines from your point of sale or store.

What are the risks of participating in this study?

The potential risks for participants in this study are loss of time, breach of confidentiality, or potential retaliation. But rest assured, we're not here to inspect your business, and no directly identifying information about this outlet or the participants will be passed on to anyone outside our research team. This includes your name, or the fact that you specifically participated in this study. As far as time is concerned, we are available to speak with you now or later today, at a time that is most convenient for you. This survey is not intended for tax or legal purposes. Your information will be aggregated with others and treated in the strictest confidence.

Who will have access to the information I provide?

We will not share individually identifying information about you or other participants with anyone outside our research team. The knowledge gained from this research will be shared in summary form, without the identities of individuals or companies. We will share aggregate information with other interested organizations or individuals who find it useful for malaria case management in the private health sector. We may produce reports, presentations and publications using the data collected in this study, and anonymized data may be used by others for future research without the need for further informed consent.

What happens if I refuse to participate?

Participation in this study is voluntary. You are free to decide whether to participate. Even if you agree, you can change your mind at any time. You can refuse to answer any specific question or stop the interview at any time. If you choose not to answer a question, stop the interview, or not participate in the study at all, this will not affect your working conditions now or in the future.

And if I have any questions?

If you have any questions, you can ask them now or later. If you have any questions at a later date, please contact the following people:

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Dr Fatima Bunza, Co-investigator PSI Nigeria fbunza@psinigeria.org +2348065598133	Dr. Goodwin Ntadom Principal investigator National Coordinator, National Malaria Elimination Programme ntadomg@yahoo.com

If you have any concerns about the conduct of this study, you can also contact NHREC (Nigerian Health Research Ethics Committee), Federal Ministry of Health, Federal Secretariat Complex Shehu Shagari Way, Garki, Abuja P.M.B. 083, Garki-Abuja. Tel: 234-9-523-8367

At the end of the study, a copy of the results will be given to each of the following structures:

- National Malaria Elimination Program (NMEP)
- Nigerian Health Research Ethics Committee (NHREC)

THE PARTICIPANT CAN NOW RECEIVE AN INFORMATION SHEET FOR SAFEKEEPING

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VERBAL CONSENT FORM

Study title	Principal Investigators
PRIVATE HEALTH SECTOR MALARIA OUTLET SURVEY, FEDERAL REPUBLIC OF NIGERIA 2024	Paul Bouanchaud, Population Services International (PSI) 1120 19th St NW, Washington DC, 20036 USA pbouanchaud@psi.org Godwin Ntadom, National Malaria Elimination Program (NMEP) ntadomg@yahoo.com

FOR THE PARTICIPANT:
I read (or had a witness of my choice read) and understood the information on the purpose of the study *"PRIVATE HEALTH SECTOR MALARIA OUTLET SURVEY, FEDERAL REPUBLIC OF NIGERIA 2024"*. I had the opportunity to ask any and all questions I had to the members of the research team. The answers were provided in a language I understood. The members of the research team also asked me questions to assess my understanding of the study's objectives.

I understand the advantages and disadvantages of my participation. I also understand that:

- My participation in the study is voluntary and I may withdraw at any time without having to give reason.
- My personal data will be deidentified, and I authorize their consultation only by persons collaborating in this research under the responsibility of the investigators.
- The researchers involved in this study will have access to any personally identifying data in strict confidence.
- The information collected may be published anonymously in scientific journals.
- Research files could be inspected by Nigeria's ethics committee to ensure that the study is running smoothly.

It was clearly explained to me, and I understood that my consent did not relieve the research organizers of their responsibility.

ORAL CONSENT TO PROCEED
Would you like to take part in the study?
Check if respondent agrees to participate □

For the attention of the investigator:
I have read the entire consent form to the study participant and the participant has voluntarily agreed to participate in the study. The participant has given his consent.

Investigator's name:

Signature: _____ Date: __ __/__ __/2024

I, the undersigned, promise to keep confidential the information I have received at the points of sale. I certify that I have explained all the details of the study to the participant indicated above and certify that he has understood and given his consent.

Investigator's name:

Signature: _____ Date: __ __/__ __/2024

THE PARTICIPANT CAN NOW RECEIVE AN INFORMATION SHEET FOR SAFEKEEPING

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ACTwatch Lite : Quantitative Questionnaire

Note this questionnaire has been edited from the printable version of the ODK form used in SurveyCTO, the digital data collection program used for this study. It does not include skip logic or constraints that are programmed in the digital tool.

Field	Question	Answer
clock_WARN	The clock settings on your phone are incorrect	
note_intro	ACTwatch Lite Nigeria 2024 Outlet Questionnaire Welcome	
date *(required)*	1. Confirm today's date:	

SECTION 0: FORM TYPE

formtype *(required)*	1. What type of form will you complete for this outlet/ business?		1	Retail questionnaire
			2	Wholesaler questionnaire
			3	Supplementary audit form (retail or wholesale)
SECTION 0: FORM TYPE > Record the outlet ID assigned on the consent form used for this outlet				
supp_WARN	If you are completing a supplementary form, please make sure the provider interview form has already been started and and outletID is available on the consent form for that interview. This outletID will recorded here to match this form to the corresponding interview.			
outletmatch_photo *(required)*	2. Photo Please take a photo of the outletID written on the top-right of the consent form for THIS OUTLET			
outletmatch_id1 *(required)*	3. Outlet ID Please enter the Outlet ID written on the			

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	top-right of the consent form. **You must enter the code as 1-XXXXXX-XXXXXX**	
outletmatch_id2 *(required)*	4. Outlet ID Please ***re-enter*** the Outlet ID written on the top-right of the consent form. **You must enter the code as 1-XXXXXX-XXXXXX**	
outletmatch_id_WARN	**The outlet ID you have entered does not match the earlier entry.** **First entry:** **[outletmatch_id1]** **Second entry:** **[outletmatch_id2]** **You must ensure the two outlet ID entries match before you can continue.**	
outletmatch_intname *(required)*	5. Name of the interviewer conducting the provider interview in this outlet (not you). DO NOT CHOOSE YOUR NAME! CHOOSE THE NAME OF THE PERSON DOING THE PRIMARY FORM AND INTERVIEW	1 Abdul 2 Aminu 3 Binta 4 Clinton 5 Daniel 6 Habiba 7 Mustapha 8 Nancy 9 Okey 10 Tovia 11 Uti 12 Yusuf 13 Zanib 95 Tosin - PSI 96 Any other PSI
auditlevel *(required)*	1.	1 Retail

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	Is this audit being conducted at a retail outlet or wholesale outlet?		2	Wholesale

SECTION 1: CENSUS INFORMATION

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Field	Question	Answer
	Interviewer: ***Complete the following questions before entering the outlet.***	
team *(required)*	1. Field team	51 Team Kano 52 Team Lagos 53 Team Abia 54 Central
c1a *(required)*	2. Your name	**Choose your name once it is programmed**
c2 *(required)*	3. State	1 Abia 2 Kano 3 Lagos
c3 *(required)*	4. Local government area	**Choose the LGA you are in**
c4 *(required)*	5. Ward	**Chose the ward you are in**
c7_r *(required)*	6. Type of outlet	1 Clinic or hospital 3 Laboratory 1 1 Community pharmacy or dispensary

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			20	Chemist/ PPMV - Patent & Proprietary Medicine Vendors
			22	Retail shop
			25	Street vendor
			96	Other
c7_inpatient *(required)*	7. Does this outlet provide in-patient services?		1	Yes
			0	No
			98	Don't know
			99	Not applicable
c7_profit *(required)*	8. Is this outlet a not-for-profit (e.g. NGO, mission)?		1	Yes
			0	No
			98	Don't know
			99	Not applicable
c7_ws *(required)*	9. Type of wholesaler		30	Importer
			31	Manufacuter
			32	Distributor
			11	Pharmacy wholesale
			22	Other shop
			96	Other
c7_other *(required)*	* Other, specify			

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c6 *(required)*	10. outlet/ business name *If no name, record "no name"*	
c5 *(required)*	11. Description of location	
gps	12. GPS coordinates *GPS coordinates can only be collected when outside.*	

Section 2 ELIGIBILITY & CONSENT

canscreen *(required)*	1. INTERVIEWER: Are you able to screen this outlet/ business for participation in the study?	1	Yes
		0	No

Field	Question		Answer
cantscreen *(required)*	2. INTERVIEWER Why are you not able to screen this outlet/ business?	1	Outlet is permanently closed
		2	Staff at outlet refused before screening could take place
		3	There is no eligible respondent to complete the screening
		4	Staff at outlet request we come back later for

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		screening
		96 Other reason
cantscreen_other *(required)*	Specify other reason:	
SECTION 2: SCREENING AND ELIGIBILITY > 0		
INST_start	**Interviewer prompt:** **Hello, my name is [c1b]. I work for Transsil and PSI- Nigeria. We are conducting a study on the availability of** **antimalarial drugs and malaria screening services in outlet/ businessess like yours in Nigeria. The results will help us improve the availability of appropriate drugs and treatment of malaria in Nigeria.** **I would like to ask you some questions to see if you can participate in this study. This is a study and you are** **under no obligation to participate, as it is completely voluntary. I would also like to assure you that the answers you give will remain confidential. We won't pass on your details to the authorities, and you won't have to fear any reprisals.nt>**	
s3 *(required)*	3. Do you have any antimalarial medicine in stock today?	1 Yes 0 No
s4 *(required)*	4. Are there any antimalarials that are out of stock today, but that you have offered for sale in the last 3 months?	1 Yes 0 No 98 Don't know 99 Not applicable
s5a *(required)*	5. Is malaria microscopy screening available here today?	1 Yes 0 No
s5b *(required)*	6. Are malaria rapid diagnostic tests (RDTs) available here today?	1 Yes 0 No

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	If asked what an RDT is, explain: a rapid diagnostic test for malaria, also known as a RDT, is a small, individually wrapped blood test that quickly diagnoses whether a person has malaria.		
s6 *(required)*	7. Have you stocked any malaria rapid diagnostic tests (RDTs) in the last 3 months ? *If asked what an RDT is, explain: a rapid diagnostic test for malaria, also known as a RDT, is a small, individually wrapped blood test that quickly diagnoses whether a person has malaria.*	1 0 98 99	Yes No Don't know Not applicable
SECTION 2: SCREENING AND ELIGIBILITY > 0			
INST_eligible	**Interviewer:** **This oulet is eligable for the study. Proceed with seeking consent to participate:** **Consent instructions:** - ***Provide information about the study to respondent.*** - ***Ask to interview the outlet/ business manager or lead pharmacist. If there are several providers working in the outlet/ business, ask the main provider to complete the interview or the most senior provider available at the time of visit.*** - ***In a discreet location away from his/her colleagues and/or supervisors, provide additional information and consent sheet.*** - ***Ask the respondent if they consent to the interview and have them read the consent sheet. The consent sheet should be signed by the interviewer.***		
consented *(required)*	8. INTERVIEWER Did you obtain the consent of the participant?	1 97 99	Yes No - the provider refused No - a provider was not available or the time is not

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				suitable
consent_y	**Interviewer:** **The outlet ID is: 1--732639** **Write this ID on the top of the consent form before proceeding with the interview.**			

Field	Question	Answer		
consent_notavail	**Interviewer:** ***If the provider is willing to participate at a more convenient time, arrange time (ideally later today) to return. Come back to this form to complete the survey at that time.***			
c10 *(required)*	**9.** **If the provider refused, why?**		1	Client load/ crowded with customers
			2	Thinks it is an inspection or afraid for their permit/ licence
			3	Not interested
			7	No reason provided
			96	Other reason
c10_other *(required)*	Specify other reason			
INST_refused1	**Interviewer:** **The interview could not be completed at this outlet.** ***If the provider is available and willing to participate at a more convenient time, arrange time (ideally later today) to return. Come***			

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	back to this form to complete the survey at that time. ***If not, thank the respondent for their time*** ***Save this form.*** ***Proceed to the next outlet.***	
INST_refused2	**Interviewer:** ***The interview could not be completed at this outlet.*** ***Save this form.*** ***Proceed to the next outlet.***	
1. consented		
checkpoint1 ***(required)***	**2.** **CHECKPOINT** **INTERVIEWER** **Are you able to continue the interview, that is, this interview has not been interrupted?**	**1 Yes** **0 No**
1. consented > SECTION 3. Provider Module		

Section 3: Provider Module

p1	**1.**	

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	Outlet/ business Characteristics **Interviewer:** ***For the following questions, ask to speak with a store manager or staff member whose responsibilities include providing prescriptions, treatment, or medicines to clients.*** ***Confirm the respondent is responsible for prescribing prescriptions, providing care or medication to clients/patients.***	
p0 ***(required)***	**1.** **Approximately when is this outlet usually open?** ***Approximate values are ok. If 24 hrs, select all.***	**1 Daytime (morning to evening)** **2 Evening only** **3 24 hours a day** **8 Other** **98 Don't know** **97 Refused**
p0_other	**Opening hours - other specify:**	
char2 ***(required)***	**1.** **Year outlet/ business was established:** ***Please enter the year***	

Field	Question	Answer
char4 ***(required)***	**2.** **How many people work here?**	
char4_WARN1	**Interviewer:** ***Confirm [char4] is the correct number of staff the respondent has reported to work at this outlet/ business before proceeding***	

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p8 *(required)*	3. Do you or anyone in this outlet/ business have any of the following health-related qualifications? Select all that apply *Read the list and select any qualifications they have on staff. Record any others they mention, but don't probe.*	1	Pharmacist
		2	Doctor
		3	Nurse
		4	Midwife
		5	Laboratory technician / Laboratory assistant
		6	Pharmacy technician / Pharmacy assistant
		7	Caregiver
		8	Counsellor (HIV, TB, Family Planning, etc.)
		9	Community health worker
		96	Other
		98	Don't know
		99	No (other) health-related qualification(s)
p8_other *(required)*	Specify qualification(s)		
char9 *(required)*	4. Has any staff working at this outlet/ business received malaria-related training on the following topics in the last 2 years? This may include courses and workshops. Interviewer: please read all responses below and select all applicable. *Do not include initial education.*	1	Malaria diagnosis
		2	Malaria treatment
		3	Malaria case recording and reporting (surveillance)
		96	Other
		99	None
		98	Don't know

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char9_other *(required)*	Specify purpose of training:	

1.
consented > SECTION 3. Provider Module > 3B. Malaria Knowledge

INST_mal	**Malaria Knowledge** Interviewer: *For the next two questions, record the brand name or generic name, and the dosage form. Ask the provider to show you the medicines if they are in stock to confirm the name and dosage form.*	

1.
consented > SECTION 3. Provider Module > 3B. Malaria Knowledge > 1.
Most effective treatment

p16_name *(required)*	2. Please name one first-line drug recommended by the government to treat uncomplicated malaria. (i.e. what is the most effective drug to treat uncomplicated malaria)? *Do not read the list. If a brand name is provided, select the generic name for that brand here. Ask the provider to show you the medication if it is in stock.*	9	Amodiaquine
		6	Artemether
		1	Artemether-lumefantrine (eg. Coartem, L-Artem)
		7	Artemisinine
		8	Artesunate
		2	Artesunate-amodiaquine
		4	Artesunate-SP
		10	Chloroquine
		5	ACT (artemisinin combination therapies)
		3	Dihydroartemisinine-piperaquine
		11	Quinine
		12	Sulfadoxine-pyrimethamine (eg. Fansidar, SP)
		95	Not an antimalarial
		96	Other
		98	Don't know

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p16_form *(required)*	3.	1	Tablet

Field	Question	Answer	
	Dosage form:	2	Suppository
		3	Granule
		4	Syrup
		5	Suspension
		6	Liquid Injectable
		7	Powder Injectable
		8	Drops
		96	Other
		97	Not applicable
p16_name_oth *(required)*	4. Other, specify:		
p21 *(required)*	5.	1	Yes
		0	No
		98	Don't know
	.	99	Not applicable
	Have you ever seen or heard of a malaria rapid diagnostic test (RDT)?		
	-		
p22 *(required)*	6.	1	Yes
		0	No
		98	Don't know
	While working at this outlet/ business, have you ever tested a client for malaria using an RDT? *A rapid diagnostic test for malaria, also known as a RDT, is a small, individually wrapped blood test that quickly diagnoses whether a person has malaria*	99	Not applicable
p23 *(required)*	7.	1	Yes, sometimes
		2	Yes, always
	Would you recommend that a patient/client take an antimalarial drug	3	No, never

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	if the rapid diagnostic test is negative for malaria? *Read the list. Record one answer*		98	Don't know
p24 *(required)*	8. Under what circumstances would you recommend that a patient/client take an antimalarial drug after a negative RDT test for malaria? *Do not read the list. Ask "what else?" until the participant finishes. Select all answers provided*		1	When they have signs/symptoms of malaria
			2	When they ask for antimalarial treatment
			3	When they are children
			4	When they are adults
			5	When they are pregnant women
			6	When I don't trust the test
			7	When I know the patient/client
			96	Other
p24_other *(required)*	Other circumstances			
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers				
HEAD_3c	**Business practices & customers** We want to get a picture of how this outlet/ business fits within the supply chain of antimalarials. To do this, we will ask questions about who you supply antimalarials too, then where you get your antimalarials from.			
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Customers				
retonline *(required)*	1. Does this outlet/ business sell antimalarials or RDTs online?		1	Yes
			0	No
			98	Don't know
			99	Not applicable
retws *(required)*	2.		1	Yes

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	Does this [outlet or business] sell antimalarials or RDT to other outlets, businesses, health facililties or healthcare workers that re-sell the products?	0 No 98 Don't know
retws_warning	Interviewer: *You have recorded that the respondent does not know if this outlet/ business supplies malaria commodities to other outlet/ businesss.* *Before proceeding, please attempt to identify and ask someone at this outlet/ business who does know if they sell products to other outlet/ businesss or if all customers are patients/ idividuals (not businesses)* *If someone is able to provide a response, please go back and enter yes or no.*	
retws_confirmdk *(required)*	3. Are you sure that no one at this outlet/ business knows if the outlet/ business sells antimalarials or RDTs to other outlet/ business, bussineses, or health facilities (i.e. for resale)?	1 Yes 0 No
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Customers > customercount		
p30 *(required)*	1. How many retail customers did you sell antimalarials to in the last 7 days? *retail customers meaning individual customers who come and purchase medicines for personal use and not for resale.*	

Field	Question	Answer
p31 *(required)*	2. How many wholesale customers did you sell antimalarials to in the last 7 days? *Record only the number of wholesale customers, NOT individual customers who come and purchase medicines for personal use and not for resale. Approximations are acceptable.*	
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Customers > customer types:		
p32_0	3. Which of the following types of clients or businesses do you sell antimalarials or mRDTs to? *Read each of the following options out loud:*	1 Yes 0 No 98 Don't know 99 Not applicable
p32_1 *(required)*	Individual retail customers/ clients (i.e. for consumption not for re-sale)	1 Yes 0 No

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		98	Don't know
		99	Not applicable
p32_3 *(required)*	Outlets (e.g. pharmacies, health facilties, etc.) who sell to indivdual clients ONLY	1	Yes
		0	No
		98	Don't know
		99	Not applicable
p32_4 *(required)*	Outlets/ busineses who supply other outlets/bussinesses (e.g. pharmacies who sell to drug shops, wholesalers)	1	Yes
		0	No
		98	Don't know
		99	Not applicable
p32_2 *(required)*	Individual customers ONLINE	1	Yes
		0	No
		98	Don't know
		99	Not applicable
p32_5 *(required)*	Sell wholesale ONLINE	1	Yes
		0	No
		98	Don't know
		99	Not applicable
p32_6 *(required)*	Other	1	Yes
		0	No
		98	Don't know
		99	Not applicable
p32b	1. Specify other customers:		
p34 *(required)*	2. Can you estimate the proportion of antimalarials you sell to each customer type in the last year? Report the estiamted propotions by volume not cost *Proportion = percent out of 100*	1	Yes
		0	No

1.
consented > SECTION 3. Provider Module > 3C. Business practices & customers > Customers > customer proportions:

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p34b_0	3. Estimate the % of antimalarial product you sell to each customer type in the past year:	
p34b_1 *(required)*	. Individual retail customers/ clients (i.e. for consumption not for re-sale)	
p34b_3 *(required)*	. Outlets (e.g. pharmacies, health facilties, etc.) who sell to indivdual clients ONLY	
p34b_4 *(required)*	. Outlets/ busineses who supply other outlets/bussinesses (e.g. pharmacies who sell to drug shops, wholesalers)	
p34b_2 *(required)*	. Individual customers ONLINE	
p34b_5 *(required)*	. Sell wholesale ONLINE	
p34b_6 *(required)*	. Other	
p34b_WARN	Interviewer: The proportion of products by supplier types should equal 100%. The current total entered is 0%.	

Field	Question	Answer		
	Please go back.			
ind_0 *(required)*	1. Where are your retail customers located? i.e where do they come from to buy your products?		1	From this community
			2	From neighboring communities
			3	From further away, but within this

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				state
			4	From other states in Nigeria
			5	From other countries
			6	Online/ from the internet
			98	Don't know
			97	Refusal
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Customers > WS with individual customers				
ind_1 *(required)*	2. Where are your individual retail customers located? i.e where do they come from to buy your products?		1	From this community
			2	From neighboring communities
			3	From further away, but within this state
			4	From other states in Nigeria
			5	From other countries
			6	Online/ from the internet
			98	Don't know
			97	Refusal
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Customers > Outlets (e.g. pharmacies, health facilties, etc.) who sell to individual clients				

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ONLY			
l1_1 *(required)*	3. Where are your customers who sell to individual retail customers located? i.e where do they come from to buy your products?	1	From this community
		2	From neighboring communities
		3	From further away, but within this state
		4	From other states in Nigeria
		5	From other countries
		6	Online/ from the internet
		98	Don't know
		97	Refusal
l1_2 *(required)*	4. How do you distribute your antimalarial products that you sell to these outlets? *Read the list. Select all that apply*	1	The outlet delivers to customers
		2	Customers come to the outlet to pick them up
		3	Through third party carriers (eg. Delivery companies, courriers, etc.)
		96	Other
l1_2b *(required)*	5. Specify other distribution method(s):		
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Customers > Outlets/ businesses who supply other outlets/businesses (e.g. pharmacies who sell to drug			

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shops, wholesalers)			
I2_1 *(required)*	6. What types of outlets/ businesses/ providers that re-sell your products do you sell to?	2	Pharmacies
		3	PUBLIC health facilities
		4	PRIVATE health facilities
		5	General retailer
		6	Drug wholesaler
		7	General wholesaler
		8	PPMVs
		96	Other
I2_2 *(required)*	7. Where are these suppliers located?	1	From this community
		2	From neighboring communities
		3	From further away, but within this state
		4	From other states in Nigeria
		5	From other countries
		6	Online/ from the internet
		98	Don't know
		97	Refusal
I2_3 *(required)*	8. How do you distribute your antimalarial products that you sell to these suppliers? *Read the list. Select all that apply*	1	The outlet delivers to customers
		2	Customers come to the outlet to pick them up
		3	Through third party carriers (eg. Delivery companies, courriers,

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			etc.)
		96	Other
l2_3b *(required)*	9. Specify other distribution method(s):		
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Customers > ONLINE			
online_1 *(required)*	10. How do your online customers place an order?		
online_2 *(required)*	11. How do you supply product to your online customers?	1	The outlet delivers to customers
		2	Customers come to the outlet to pick them up
		3	Through third party carriers (eg. Delivery companies, courriers, etc.)
		96	Other
online_2b *(required)*	12. Specify other distribution method(s):		
online_3 *(required)*	13. Where are your online customers located?	1	From this community
		2	From neighboring communities
		3	From further away, but within this state
		4	From other states in Nigeria
		5	From other countries
		6	Online/ from the internet
		98	Don't know
		97	Refusal
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Wholesale business practices			
ws1 *(required)*	1.	1	Yes

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	Do you import antimalarials?	0	No
		98	Don't know
ws1b *(required)*	2. Where do you import antimalarials from (include company names and countries where possible).		
ws12 *(required)*	3.	1	Yes
		0	No
		98	Don't know
	In the past 3 months, have you given credit to wholesale customers who purchased antimalarials?		
ws13 *(required)*	4.		
	What are the most common terms of your credit in days?		
ws13_warning	You have entered that this wholesaler typically provides [ws13] days credit for customers who purchase antimalarials. If that is correct, proceed. If not, go back and edit your response.		
1. consented > SECTION 3. Provider Module > 3C. Business practices & customers > Business network			
ws5a *(required)*	1.	1	Yes
		0	No
		97	Refuse to answer
	Does the owner of this business own any other stores or businesses?	98	Don't know
ws5b *(required)*	2.	8	Clinic
		3	Wholesale and retail drug store
	What types of other stores or businesses does the owner own?	6	General retailer
		7	Manufacturer
		1	Drug wholesaler/distributor/importer
		2	Wholesaler/Distributor/General

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			Importer
		4	General wholesale and retail store
		5	Pharmacy / Dépôt pharmaceutique

Field	Question	Answer		
			96	Other
ws5b_other *(required)*	Specify other business type:			
p_cmts	1. Interviewer: [OPTIONAL] Please add any other comments or description of their customers, business practices, or distribution network here.			
checkpoint2 *(required)*	1. CHECKPOINT INTERVIEWER Are you able to continue the interview, that is, this interview has not been interrupted?		1	Yes
			0	No
1. consented > Section 4. Digital				

Section 4: Digital

dig0 *(required)*	1. In the past 30 days, did this outlet/ business have running water?		1	Yes
			0	No
			98	Don't know
			99	Not applicable
dig1 *(required)*	2.		1	Yes - availabile AND functioning
			2	Available; NOT functioning

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	In the past 30 days, did this outlet/ business have electricity?		0	NO - not available
dig2 *(required)*	3. In the past 30 days, did this outlet/ business have access to any phone? *This may be a phone belonging to the business or the business owner*		1	Yes - availabile AND functioning
			2	Available; NOT functioning
			0	NO - not available
dig2b *(required)*	4. What type of phone? *This may be a phone belonging to the business or the business owner*		1	Landline or non-mobile phone (non-network phone)
			2	Simple mobile phone (voice, SMS)
			3	Feature phone (voice, SMS, limited access to some internet applications)
			4	Smartphone
dig2c *(required)*	5. In the past 30 days, did this outlet/ business have netowork for voice and SMS? *This may be a phone belonging to the business or the business owner*		1	Yes - availabile AND functioning
			2	Available; NOT functioning
			0	NO - not available
dig2d *(required)*	6. Select which of the following applications/ services you have used on this phone in the last 30 days:		3	Mobile money
			1	SMS
			2	WhatsApp / Other messaging applications
			4	Call
dig3 *(required)*	7.		1	Yes - availabile AND functioning
			2	Available; NOT

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				functioning
	In the past 30 days, did this outlet/ business have internet connection (WiFi or fixed)?		0	NO - not available
dig4 *(required)*	8.		1	Mobile data
			2	Wi-fi
	What type of Internet connection do you use most often to connect to the Internet?			
dig5 *(required)*	9.		1	Yes - availabile AND functioning
			2	Available; NOT functioning
	In the past 30 days, did this outlet/ business have access to any tablets or computers?		0	NO - not available
dig5b *(required)*	10.		1	Tablet(s)
			2	Laptop(s)
	What types of tablets or computers does this outlet/ business have?		3	Desktop(s)
dig7_0	11.		1	Uses now
			2	Not now but wants to
	For each of the following business activities, identify if you currently use digital technology, would like to digitize, or are not interested in digitizing the activity. (Digital technology includes computers, tablets and smartphones with an internet connection)		3	Not now & not interested
			98	Don't know
	Read the list. All rows must have responses before you can proceed.		97	Refused
dig7_1 *(required)*	Managing retail sales to customers		1	Uses now
			2	Not now but wants to
			3	Not now & not interested
			98	Don't know
			97	Refused
dig7_2 *(required)*	Managing stock at this outlet/ business		1	Uses now

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			2	Not now but wants to
			3	Not now & not interested
			98	Don't know
			97	Refused
dig7_3 *(required)*	Place orders with suppliers		1	Uses now
			2	Not now but wants to
			3	Not now & not interested
			98	Don't know
			97	Refused
dig7_4 *(required)*	Paying suppliers		1	Uses now
			2	Not now but wants to
			3	Not now & not interested
			98	Don't know
			97	Refused
dig7_5 *(required)*	Managing human resources (e.g. payroll, schedule)		1	Uses now
			2	Not now but wants to
			3	Not now & not interested
			98	Don't know
			97	Refused
dig7b *(required)*	12. Do you carry out any other types of business activities using digital technology?		1	Yes
			0	No
			98	Don't know
			99	Not applicable
dig7bi *(required)*	13. Specify other activities:			

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1.
consented > Section 4. Digital > 4.B Participation in the monitoring system and supervision visits

INST_data	**Routine Data** **Interviewer:** ***Complete this section by addressing the person responsible for data management at this outlet/ business, such as the head nurse, general nurse, pharmacy manager, or owner.***	
data1 *(required)*	14. Do you report malaria case data each month? *i.e. do you report to the local health administration/ ward? To any project?*	1 Yes 0 No 98 Don't know 99 Not applicable
data2 *(required)*	15. What forms and tools do you use to report malaria-related data to higher levels of the health system? *Read the list. Select all that apply*	1 Directly to government 2 Directly in to DHIS2 platform 3 To specific project/ NGO 96 Other 98 Don't know
data2b *(required)*	16. Other forms and tools used to report data:	
data3 *(required)*	17. When was the last time you or this outlet/ business received a supervisory visit regarding malaria surveillance by health zone or health district staff?	1 Less than 1 month 2 Between 1 and 3 months 3 Between 3 and 6 months 4 Between 6 and 12 months 5 More than 12 months ago 0 Never 98 Don't know

Field	Question	Answer

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data3c *(required)*	18. Did the supervisor send written feedback after the previous supervision visit?	1 Yes 0 No 98 Don't know 99 Not applicable
data4 *(required)*	19. Have you received a checklist for malaria surveillance, for example, a poster or leaflet?	1 Yes 0 No 98 Don't know 99 Not applicable
checkpoint3 *(required)*	1. CHECKPOINT INTERVIEWER Are you able to continue the interview, that is, this interview has not been interrupted?	1 Yes 0 No
1. consented > Section 5. Product supply		

Section 5: PRODUCT SUPPLY

HEAD_s5	Interviewer: *Complete this section by speaking with a member of staff responsible for or that can provide information about stock/inventory management and resupply.*	
1. consented > Section 5. Product supply > 5.A Sources of antimalarials		
sa1 *(required)*	1. **Antimalarial Supply** SA1. How many different suppliers have you purchased antimalarials from in the last 3 months?	

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sa1_WARN1	**Interviewer:** ***Confirm [sa1] is the correct number of different suppliers the respondent has reported using for malaria commodities in the last 3 months before proceeding***		
1. consented > Section 5. Product supply > 5.A Sources of antimalarials > -			
sa2_01	2. What types of suppliers does this outlet/ business use to purchase antimalarials? *You might need a probe a bit, but do not read out all of the responses.*	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2_1 *(required)*	International manufacturer	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2_2 *(required)*	Local manufacturer	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2_3 *(required)*	Drug wholesaler/importer	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2_4 *(required)*	General wholesaler/importer	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2_5 *(required)*	Pharmacy	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2_6 *(required)*	Pharmacy depot	1	Yes

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		0	No
		98	Don't know
		99	Not applicable
sa2_7 *(required)*	Public sector supply chain	1	Yes
		0	No

Field	Question	Answer	
		98	Don't know
		99	Not applicable
sa2_8 *(required)*	Informal outlet	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2_9 *(required)*	Private outlet/seller	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2_10 *(required)*	Any other source	1	Yes
		0	No
		98	Don't know
		99	Not applicable
sa2b	3. Other type of supplier?		
sa3 *(required)*	4. Can you estimate the proportion of antimalarials you get from each supplier type? *Report estimated percentages by volume not cost. Proportion = percent out of 100*	1	Yes
		0	No
1. consented > Section 5. Product supply > 5.A Sources of antimalarials > 0			
sa3b_0	5. Estimate the % of antimalarial product you get from each supplier		

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	type anually: *Report estimated percentages by volume not cost. Proportion = percent out of 100*			
sa3b_1 *(required)*	International manufacturer			
sa3b_2 *(required)*	Local manufacturer			
sa3b_3 *(required)*	Drug wholesaler/importer			
sa3b_4 *(required)*	General wholesaler/importer			
sa3b_5 *(required)*	Pharmacy			
sa3b_6 *(required)*	Pharmacy depot			
sa3b_7 *(required)*	Public sector supply chain			
sa3b_8 *(required)*	Informal outlet			
sa3b_9 *(required)*	Private outlet/seller			
sa3b_10 *(required)*	Any other source			
sa3b_WARN	**Interviewer:** **The proportion of products by supplier types should equal 100%.** **The current total entered is [sa3b_check].** **Please go back.**			
sa4 *(required)*	2. How do you most often receive your antimalarials from supplier(s)? *Read the list.*		1	The supplier delivers to you
			2	You pick up the product from the supplier
			3	Both above situations
			97	Refuse to answer

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		98	Don't Know
sa5 *(required)*	3. What are the common methods of payment to your suppliers for antimalarials? *Read the list. Select all that apply.*	1	Cash
		2	Credit card
		3	Check
		4	Mobile money
		96	Other
		97	Refuse to answer
		98	Don't know
sa5_other *(required)*	Other payment method		
sa6 *(required)*	4. Do you buy antimalarial drugs on credit from any supplier?	1	Yes
		0	No
		97	Refuse to answer
		98	Don't know
sa7 *(required)*	5. What are the most common credit terms, in terms of number of days to settle payment?		

Field	Question	Answer	
sa7_WARN1	Interviewer: *Confirm [sa7] is the correct number of days typically given to settle payment before proceeding*		
sa11 *(required)*	6. What brand of antimalarial drug do you sell to indivudal clients or use most often at this facilty/outlet? *Where possible, please enter the master brand name (e.g. Coartem) rather than a particular variant (Coartem 40/480). Please double check spelling and ask to see the product to confirm when possible*		
sa12 *(required)*	7.	1	Yes

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	In the past 12 months, did you ever have to use another supplier for because your regular supplier did not have it in stock?	0	No
		98	Don't know
		99	Not applicable
sa13 *(required)*	8. In the past 12 months, how has the price to purchase [sa11] changed?	1	Generally stable
		2	Changed every 6 months
		3	Changed every 3 months
		4	Changed every month
		5	Changed every 2 weeks
		6	Changed every week
		7	More frequently
		98	Don't know
sa14 *(required)*	9. In your opinion, what is the main reason for price changes over the past 12 months?	6	Inflation / exchange rate
		3	Competition form other products
		1	Product scarcity
		2	Changes in wholesaler margins
		5	Taxes (income tax, customs)
		96	Other
sa14_other *(required)*	Specify other reasons for price changes:		
sa15 *(required)*	10. Think about your [sa11] purchases over the last 12 months. Have prices been less stable, about the same, or more stable than in the past two years?	1	Less stable than 2022/23
		2	Unchanged
		3	More stable than 2022/23
		98	Don’t know
sa1a *(required)*	11.	1	Yes

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	Thinking again about your main suppliers for antimalarials, are you able to share specific details about your main suppliers such as name and location? **We will use this information to conduct additional surveys of businesses and outlets that supply malaria commodities.** ***Details include name, location, payment method, delivery method. Ask respondents to provide as much information as they can, but note that they will be able to refuse or skip questions that they do not know. The objective of this set of question is to collect information on wholesalers that will be interviewed later as part of this study.***	**0 No**
amsuppliers_INST	**Interviewer:** ***Capture information on all suppliers of antimalarials used in the past 3 months.*** ***Instructions:*** ***(1)Proceed swiping forward and selecting 'Add Group'.*** ***(2) Complete all questions and add new groups for each different supplier*** ***(3) If the provider does not know or does not wish to answer, select these choices or follow instructions in the 'hint' on each page.***	
1. consented > Section 5. Product supply > 5.A Sources of antimalarials > Antimalarial supplier(s) (1)		**(Repeated group)**
amsupp1 ***(required)***	**12.** **Supplier name:** **-**	
amsupp2 ***(required)***	**13.** **Type of supplier?**	**1 International manufacturer** **2 Local manufacturer** **3 Importer** **4 Distributor** **5 Pharmacy wholesale**

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			7	PPMV / chemist
			11	Public sector supply chain
			12	Other informal outlet

Field	Question	Answer		
			96	Other private outlet/seller
			97	Refuse to answer
			98	Don't know
amsupp3 *(required)*	14. Other type of supplier? -			
amsupp4 *(required)*	15. What state is the supplier located in?		1	Lagos
			2	Kano
			3	Abia
			96	Other
			-9998	Don't know
			-9777	Refused
amsupp5 *(required)*	16. City / town of supplier. -			
amsupp6 *(required)*	17. Physical address or description of business location. *Provide landmarks and other information to help identify the location of this outlet*			
amsupp7	18.			

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(required)	**Contact information (if available)** ***Provide phone number or any other information to contact this outlet***		
amsuppliers_END	**Interviewer:** **Thank the respondent for their antimalarial supplier information and proceed.**		
1. consented > Section 5. Product supply > 5.B Sources of RDTs			
st1 ***(required)***	**1.** **RDT Supply** **ST1. How many suppliers have you purchased malaria rapid diagnostic tests (RDTs) from in the last 3 months** ***Ask to speak with someone who has the information 00 = No supplier 97 = Refused 98 = Don't know***		
st1_WARN	**Interviewer:** ***Confirm [st1] is the correct number of different suppliers in the last 3 months before proceeding***		
INST_st1	**Ask to speak with someone who has the information and go back to the previous question.**		
1. consented > Section 5. Product supply > 5.B Sources of RDTs > 0			
st2_0	**2.** **What types of suppliers does this outlet/ business use to purchase RDTs?** ***You might need a probe a bit, but do not read out all of the responses.***	**1**	**Yes**
		0	**No**
		98	**Don't know**
		99	**Not applicable**
st2_1 ***(required)***	**3.** **International manufacturer**	**1**	**Yes**
		0	**No**
		98	**Don't know**
		99	**Not applicable**
st2_2 ***(required)***	**4.** **Local manufacturer**	**1**	**Yes**
		0	**No**
		98	**Don't know**
		99	**Not applicable**

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st2_3 *(required)*	5. Drug wholesaler/importer	1	Yes
		0	No
		98	Don't know
		99	Not applicable
st2_4 *(required)*	6. General wholesaler/importer	1	Yes
		0	No
		98	Don't know
		99	Not applicable
st2_5 *(required)*	7. Pharmacy	1	Yes
		0	No
		98	Don't know
		99	Not applicable
st2_6 *(required)*	8. Pharmacy depot	1	Yes
		0	No
		98	Don't know

Field	Question	Answer	
		99	Not applicable
st2_7 *(required)*	9. Public sector supply chain	1	Yes
		0	No
		98	Don't know
		99	Not applicable
st2_8 *(required)*	10. Informal outlet	1	Yes
		0	No
		98	Don't know
		99	Not applicable
st2_9 *(required)*	11. Private outlet/seller	1	Yes
		0	No
		98	Don't know
		99	Not applicable

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st2_10 *(required)*	12. Any other source	1 Yes 0 No 98 Don't know 99 Not applicable
st2b	13. Other type of supplier?	
st3 *(required)*	14. Can you estimate the proportion (percent out of 100) of RDTs you get from each supplier type (by volume not cost)?	1 Yes 0 No
1. consented > Section 5. Product supply > 5.B Sources of RDTs > 0		
st3b_1 *(required)*	. International manufacturer	
st3b_2 *(required)*	. Local manufacturer	
st3b_3 *(required)*	. Drug wholesaler/importer	
st3b_4 *(required)*	. General wholesaler/importer	
st3b_5 *(required)*	. Pharmacy	
st3b_6 *(required)*	. Pharmacy depot	
st3b_7 *(required)*	. Public sector supply chain	
st3b_8 *(required)*	. Informal outlet	
st3b_9 *(required)*	. Private outlet/seller	
st3b_10 *(required)*	. Any other source	

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st3b_WARN	**Interviewer:** **The proportion of products by supplier types should equal 100%. The current total entered is [st3b_check].** **Please go back.**			
st4 *(required)*	**2.** **How do you most often receive your RDTs from supplier(s)?** ***Read the list.***		1	The supplier delivers to you
			2	You pick up the product from the supplier
			3	Both above situations
			97	Refuse to answer
			98	Don't Know
st5 *(required)*	**3.** **What are the common methods of payment to your suppliers for RDTs?** ***Read the list. Select all that apply.***		1	Cash
			2	Credit card
			3	Check
			4	Mobile money
			96	Other
			97	Refuse to answer

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Field	Question	Answer
		98 Don't know
st5_other *(required)*	**Other payment method** -	
st6 *(required)*	**4.** **Do you buy RDTs on credit from any supplier?**	1 Yes 0 No 97 Refuse to answer 98 Don't know
st7 *(required)*	**5.** **What are the most common credit terms, in terms of number of days to settle payment?** ***Enter the number of days***	
st7_WARN1	**Interviewer:** ***Confirm [sa7] is the correct number of days typically given to settle payment before proceeding***	
st11 *(required)*	**6.** **What brand of RDT do you sell to indivudal clients or use most often at this facilty/outlet?**	
st12 *(required)*	**7.** **In the past 12 months, did you ever have to use another supplier for [st11] because your regular supplier did not it in stock?**	1 Yes 0 No 98 Don't know 99 Not applicable
st13 *(required)*	**8.** **In the past 12 months, how has the price to purchase [st11] changed?**	1 Generally stable 2 Changed every 6 months 3 Changed every 3 months 4 Changed every

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				month
			5	Changed every 2 weeks
			6	Changed every week
			7	More frequently
			98	Don't know
st14 *(required)*	9. In your opinion, what is the main reason for price changes over the past 12 months?		6	Inflation / exchange rate
			3	Competition form other products
			1	Product scarcity
			2	Changes in wholesaler margins
			5	Taxes (income tax, customs)
			96	Other
st14_other *(required)*	Specify other reasons for price changes:			
st15 *(required)*	10. Thinking about your purchases of [st11] over the past 12 months, have prices been less stable, more stable , or about the same compared to the last two years?		1	Less stable than 2022/23
			2	Unchanged
			3	More stable than 2022/23
			98	Don’t know
st1a *(required)*	11. Thinking again about your main suppliers for antimalarials/RDT, are you able to share specific details about your main suppliers such as name and location? *Details include name, location, payment method, delivery method. Ask respondents to provide as much information as they can, but note that they will be able to refuse or skip questions that they do not know. The objective of this set of question is to collect information on wholesalers that will be interviewed later as part of this study.*		1	Yes
			0	No

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rdtsuppliers_INST	**Interviewer:** ***Capture information on all suppliers of RDTs used in the past 3 months.*** ***Instructions:*** *(1)* ***Proceed swiping forward and selecting 'Add Group'.*** *(2)* ***Complete all questions and add new groups for each different supplier*** *(3)* ***If the provider does not know or does not wish to answer, select these choices or follow instructions in the 'hint' on each page.***	
1. consented > Section 5. Product supply > 5.B Sources of RDTs > RDT supplier(s) (1)		(Repeated group)
rdtsupp1 *(required)*	12. Name of supplier: -	
rdtsupp2 *(required)*	13.	1 International manufacturer 2 Local manufacturer

Field	Question	Answer
	Type of supplier?	3 Importer 4 Distributor 5 Pharmacy wholesale 7 PPMV / chemist 11 Public sector supply chain 12 Other informal outlet 96 Other private

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				outlet/seller
			97	Refuse to answer
			98	Don't know
rdtsupp3 *(required)*	14. Other type of supplier?			
rdtsupp4 *(required)*	15. What state is the supplier located in?		1	Lagos
			2	Kano
			3	Abia
			96	Other
			-9998	Don't know
			-9777	Refused
rdtsupp5 *(required)*	16. City / town of supplier. -			
rdtsupp6 *(required)*	17. Physical address or description of business location. *Provide landmarks and other information to help identify the location of this outlet*			
rdtsupp7 *(required)*	18. Contact information / phone number (if available) *Provide phone number or any other information to contact this outlet*			
checkpoint4 *(required)*	1. CHECKPOINT		1	Yes
			0	No

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	INTERVIEWER **Are you able to continue the interview, that is, this interview has not been interrupted?**	

Section 6: Antimalarial Audit

The digital questionnaire provides the option to search a database of known products.
To do this, you type all of part of the brand name when promoted, and the next page will provide any potential matching products. If it is not on this list, you will manually enter the product.

Dosage form 1 = Tablet 5=Suspensi 2 = Suppository 6 = Drops 3 = Granule 7= Liquid inj 4 = Syrup 8 = Powder 96 = Other (specify) [_____	**Brand name**	**Manufacture** Name: Country:	
Active ingredient(s) 1. 2. 3.	**Strengths** 1. **[__|__|__|__]. [__] mg/ [__|__|__|__].[__]mL** 2. **[__|__|__|__].[__] mg/ [__|__|__|__].[__]mL** 3. **[__|__|__|__].[__] mg/ [__|__|__|__].[__]mL**	**Salts**: 1. 2. 3.	**FDC?** 1 = Yes 0 = No 8 = Do not know

Pack type 1= Blister strip 2= Individual packet 3= Loose tablets 4= Sachet	**Pack size** [___|___|___] #
5= Bottle	[___|___|___].[__] mL for liquids **OR** [___|___|___].[__
6= Ampoule or vial	[___|___|___].[__] mL for liquids **OR** [___|___|___].[__
96 = Other (specify) [_____]	[___|___|___].[__] (specify unit:)

Quantity sold in the last 7 days [___|___|___|___] of each [pack type]	**Quantity sold/ distributed at wholesale or for resale** [___|___|___|___] of each [pack type]	**Stocked out in last 3 months?** 1 = Yes 0 = No 8 = Do not know
Price to retail customers: *Price of this product to last customer of one* [___|___|___] [pack type](s) of [brand] cost [___|___|___|___|___]₦ to the last retail customer	**Wholesale price/ price for resale customers:** *Minimum wholesale/ resale amount and price* [___|___|___|___] [pack type](s) of [brand] is the minimum amount sold at wholesale/ for resale and cost the business [___|___|___|___|___]₦	**Price purchased from supplier:** *Price of last purchase of this product from your supplier* [___|___|___|___] [pack type](s) of [brand] cost me/ my business [___|___|___|___|___]₦ to purchase from the supplier
Additional comments:		

Section 7: Diagnostics

The digital questionnaire provides the option to search a database of known products.
To do this, you type all of part of the brand name when promoted, and the next page will provide any potential matching products. If it is not on this list, you will manually enter the product.

Brand name:	**Parasite specie(s):** 1 Pf	**Antigen test(s):** 1 HRP2	**Manufacturer** Name:	**Is this a self-administration test kit**

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	2 Pf/Pan 4 Pf/Pv 5 Pan 8 Not indicated 96 Other; Specify: [_____]	2 pLDH 3 HRP2/pLDH 4 HRP2/Aldolase 8 Not indicated 96 Other; Specify: [_____]	Country:	**with its buffer, pipette and lancet?** 1 = Yes 0 = No 8 = Don't know

Quantity sold in the last 7 days : [___|___|___|___] [brand name] tests	**Stocked out in last 3 months?** 1 = Yes 0 = No 8 = Don't know
In-house testing price to retail customers: *Total cost for a test conducted with a [brand name] RDT (including RDT cost and service fee) for:* Adult: [___|___|___|___|___]₦ to the last retail customer Child: [___|___|___|___|___]₦ to the last retail customer	**Take-away testing price to retail customers:** *Total cost for a [brand name] RDT (including RDT cost and service fee) for:* Adult: [___|___|___|___|___]₦ to the last retail customer Child: [___|___|___|___|___]₦ to the last retail customer
Price purchased from supplier: *Price of last purchase of this product from your supplier* Number of RDTs purchased: [___|___|___|___|___] Total price: [___|___|___|___|___]₦	**Wholesale price/ price for resale customers:** *Minimum wholesale/ resale amount and price* [___|___|___|___] [brand] RDTs is the minimum amount sold by this outlet at wholesale or for resale and costs the outlets business customers [___|___|___|___|___]₦ for this quantity
Additional comments:	

Section 8: Registration

reg1 ***(required)***	**1.** **Does this outlet have a license/ registration from PCN?**		**1**	**YES - the repondent REPORTS having this licence**
			2	**YES - the repondent REPORTS and you have OBSERVED the licence**
			0	**NO - the respondent reports NOT having the licence**
			97	**Respondent refused to answer**

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			98	Respondent does not know
			99	NOT APPLICABLE- this outlet type does not require this MoH agreement
reg2 *(required)*	2. Does this PPMV have a licence from any of the following:		1	PPMV license/ registration
			2	NAPMED license/ registration
			3	LSMDA license/ registration [Lagos only]
			4	AMB license/ registration [Abia only]
			96	Other
			98	No licence available
reg5 *(required)*	3. Does this facility/outlet have any other licenses to open and operate?		1	Yes
			0	No
			98	Don't know
			99	Not applicable
reg5_other *(required)*	List the name(s) of other licenses: *If there are multiple other licences provided, please separate names with a ';'*			
reg6 *(required)*	4. Has this establishment received a government inspection in the last year?		1	Yes
			0	No
			98	Don't know
			99	Not applicable

1.
consented > Section 8: Registration status > 0

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reg7 *(required)*	5. When was the last visit? *Enter '1998' if unknown*			

Section X: End of Interview

Section X: End of interview				
c9 *(required)*	Interviewer: : Record the result of the interview here:		1	Interview complete
			99	Interview interrupted (Time not convenient)
			97	Interview interrupted (Provider refused to continue)
			96	Other
status_other *(required)*	Specify other survey result:			
survey_complete	**Interviewer:** ***The interview is now complete.*** ***Thank the respondent for their time*** ***Save this form*** ***Proceed to the next outlet.***			
survey_incomplete	**Interviewer:**			

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Field	Question	Answer
	Save this form. ***If the provider is willing to complete the interview at another time, arrange time (ideally later today) to return. Come back to this form to complete the survey at that time.*** **If the provider is not willing or able to continue, proceed to the next outlet.**	
screen_later	**Interviewer:** **Save this form.** ***If the provider is willing to complete the interview at another time, arrange time (ideally later today) to return. Come back to this form to complete the survey at that time.*** **If the provider is not willing or able to continue, proceed to the next outlet.**	
screen_notpossible	**Interviewer:** ***The interview could not be completed at this outlet.*** ***Save this form.*** ***Proceed to the next outlet.***	
end3	**Interviewer: :** **Additional observations/comments by the interviewer**	

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