



Evidence for Malaria Medicines Policy

ACTwatch Study Reference Document

Nigeria Outlet Survey

2013



Released November 17, 2014

Updated August 19, 2015

Suggested citation

ACTwatch Group and SFH. (2014). *ACTwatch Study Reference Document: Nigeria Outlet Survey 2013*. Washington DC: PSI.

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Acknowledgements

ACTwatch is funded by the Bill and Melinda Gates Foundation, UNITAID, and the UK Department for International Development (DFID). This study was implemented by Population Services International (PSI).

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List of Abbreviations

ACT	Artemisinin combination therapy
AETD	Adult equivalent treatment dose
AL	Artemether lumefantrine
AMFm	Affordable Medicines Facility – malaria
A PPQ	Artemisinin piperaquine
ASAQ	Artesunate amodiaquine
ASMQ	Artesunate mefloquine
AS SP	Artesunate sulfadoxine pyrimethamine
BMGF	The Bill and Melinda Gates Foundation
CHW	Community Health Worker
DFID	Department for International Development
DHQ PPQ	Dihydroartemisinin piperaquine
DHS	The Demographic and Health Survey
EMA	European Medicines Agency
FMOH	Federal Ministry of Health
IM	Intramuscular injection
IV	Intravenous injection
LGA	Local Government Area
MOH	Ministry of Health
NAFDAC	National Agency for Food and Drug Administration and Control
NHIS	National Health Insurance Scheme
Oral AMT	Oral artemisinin monotherapy
OTC	Over the counter (non-prescription)
PMI	US President’s Malaria Initiative
PPMV	Patent proprietary medicine vendor
Pf	<i>Plasmodium falciparum</i>
PHC	Primary Health Care
QAACT	Quality-assured artemisinin combination therapy
RDT	Rapid diagnostic test
SMOH	State Ministry of Health
UK	United Kingdom

Definitions

Survey Methods Definitions

Outlet	Any service delivery point or point of sale for commodities. Outlets are not restricted to stationary points of sale and may include mobile units or individuals.
Outlets eligible for inclusion in the study	Outlets were administered a full questionnaire if they met at least one of three inclusion criteria: (1) had one or more antimalarials in stock at the time of the survey visit; (2) reportedly had one or more antimalarials in stock in the previous three months; or (3) provide malaria blood testing (microscopy or rapid diagnostic tests) but do not provide antimalarial treatment. Outlets not providing services to the general public (e.g. army and military clinics) were excluded from the study.
Cluster	The primary sampling unit, or cluster, for the outlet survey. It is an administrative unit determined by the Ministry of Health (MOH) that hosts a population size of approximately 10,000 to 15,000 inhabitants. These units are defined by administrative boundaries. In Nigeria, they were defined as <i>localities</i> .
Censused locality	A locality where field teams conducted a full census of all outlets with the potential to sell antimalarials and/or provide malaria blood testing.
Booster Sample	A booster sample was collected by extending the primary sampling unit to a higher administrative unit for sampling certain outlet types. This extension achieves a larger sample size for specific outlets, allowing for estimates among key outlet types. In this survey, a booster sample was collected for public health facilities. The administrative unit for the census of public health facilities was extended beyond locality to the local government area (LGA).

Antimalarial Indicator Definitions

Antimalarial	Any medicine recognized by the WHO for the treatment of malaria. Medicines used solely for the prevention of malaria were excluded from analysis of key indicators in this report.
Dosing/treatment regimen	The posology or timing and number of doses of an antimalarial used to treat malaria. This schedule often varies by patient weight.
Adult Equivalent Treatment Dose (AETD)	An AETD is the number of milligrams (mg) of an antimalarial drug required to treat a 60 kg adult (see Annex 11).
Monotherapy	An antimalarial medicine that has a single mode of action. This may be a medicine with a single active compound or a synergistic combination of two compounds with related mechanisms of action.
Artemisinin and its derivatives	Artemisinin is a plant extract or synthetic plant extract used in the treatment of malaria. The most common derivatives of artemisinin used to treat malaria are artemether, artesunate, and dihydroartemisinin.
Artemisinin-based Combination Therapy (ACT)	An antimalarial that combines artemisinin or one of its derivatives with an antimalarial or antimalarials of a different class.

Artemisinin monotherapy	An antimalarial medicine that has a single active compound, where this active compound is artemisinin or one of its derivatives.
Oral artemisinin monotherapy	Artemisinin or one of its derivatives in a dosage form with an oral route of administration. These include tablets, granules, suspensions, and syrups and exclude suppositories and injections.
Non-artemisinin therapy	An antimalarial medicine that does not contain artemisinin or any of its derivatives.
First-line treatment	The government recommended treatment for uncomplicated malaria. Nigeria's first-line treatment for uncomplicated malaria is artemether lumefantrine (20mg / 120mg) and artesunate amodiaquine (50mg / 153 mg) is an alternative first line.
Second-line treatment	The government recommended second-line treatment for uncomplicated malaria. Nigeria's second-line treatment for uncomplicated malaria is quinine.
Nationally registered ACTs	ACTs registered with a country's national drug regulatory authority and permitted for sale or distribution in country. Each country determines its own criteria for placing a drug on its nationally registered listing.
Severe malaria treatment	WHO recommends parenteral artesunate as first-line treatment in the management of severe <i>falciparum</i> malaria, with artemether or quinine injections as acceptable alternatives if parenteral artesunate is not available ¹ . If complete treatment for severe malaria is not possible, patients with severe malaria should be given pre-referral treatment and referred immediately to an appropriate facility for further treatment. The following are options for pre-referral treatment: rectal artesunate, injectable quinine, injectable artesunate and injectable artemether.
Quality-assured Artemisinin-Based Combination Therapies (QAACTs)	QAACTs are ACTs that comply with the Global Fund to Fight AIDS, Tuberculosis and Malaria's Quality Assurance Policy. A QAACT is any ACT that appeared on the Global Fund's indicative list of antimalarials meeting the Global Fund's quality assurance policy prior to data collection (see http://www.theglobalfund.org/en/procurement/quality/pharmaceutical/), or that previously had C-status in an earlier Global Fund quality assurance policy and was used in a program supplying subsidized ACTs. QAACTs also include ACTs that have been granted regulatory approval by the European Medicines Agency (EMA) – specifically Eurartesim® and Pyramax®.
Quality-assured ACT with the “green leaf” logo, or “co-paid ACTs”	The “green leaf” logo indicates that a quality-assured ACT was acquired through a co-payment mechanism administered by the Global Fund (Affordable Medicines Facility, malaria – or AMFm). These subsidized (co-paid) quality-assured ACTs were available to first-line buyers in Nigeria in the public and private sector from 2010-2013.



¹ World Health Organization. (2010). *Guidelines for the treatment of malaria, 2nd edition*. Geneva: WHO.

Introduction

This country reference document is a detailed presentation of the 2013 national ACTwatch outlet survey (OS) conducted in Nigeria. The 2013 OS follows previous survey rounds conducted by ACTwatch in Nigeria in 2008, 2009 and 2011.

ACTwatch is a multi-country research project implemented by PSI (www.psi.org). Standardized tools and approaches are employed to provide comparable data across countries and over time. ACTwatch is designed to provide timely, relevant, and high quality antimalarial market evidence. The goal of providing this market evidence is to inform and monitor national and global policy, strategy, and funding decisions for improving malaria case management. The project was launched in 2008 with funding from the Bill and Melinda Gates Foundation (BMGF), and is currently funded through mid-2016 by the BMGF, UNITAID, and DFID. See Annex 1 for more information about the ACTwatch project.

ACTwatch antimalarial market monitoring in Nigeria from 2008 to present has been implemented in the context of strategies designed and implemented to improve coverage of appropriate case management. These include:

- Scale up of quality-assured ACTs in the public and private sectors through mechanisms including the Global Fund co-payment mechanism piloted under the Affordable Medicines Facility, malaria (AMFm). The initial AMFm pilot period was 2010-2011 and co-paid ACTs were delivered to first-line buyers in Nigeria from 2010-2013.
- Scale up of malaria rapid diagnostic tests (RDT) and malaria case management training in the public and private sectors to facilitate confirmatory testing prior to appropriate antimalarial treatment.

The 2013 OS was the fourth round of ACTwatch outlet surveys conducted in Nigeria. This report presents trend lines with three data points: 1) the 2009 AMFm baseline survey; 2) the 2011 AMFm pilot endline survey; and 3) the most recent 2013 survey. Another outlet survey round is planned for 2015. These surveys are designed to monitor key antimalarial market indicators at national level and within geopolitical domains (North Central, North East, North West, South East, South South, and South West). ACTwatch outlet survey findings can inform ongoing monitoring, evaluation, and adjustment to policy, strategy, and funding decisions to strengthen malaria case management.

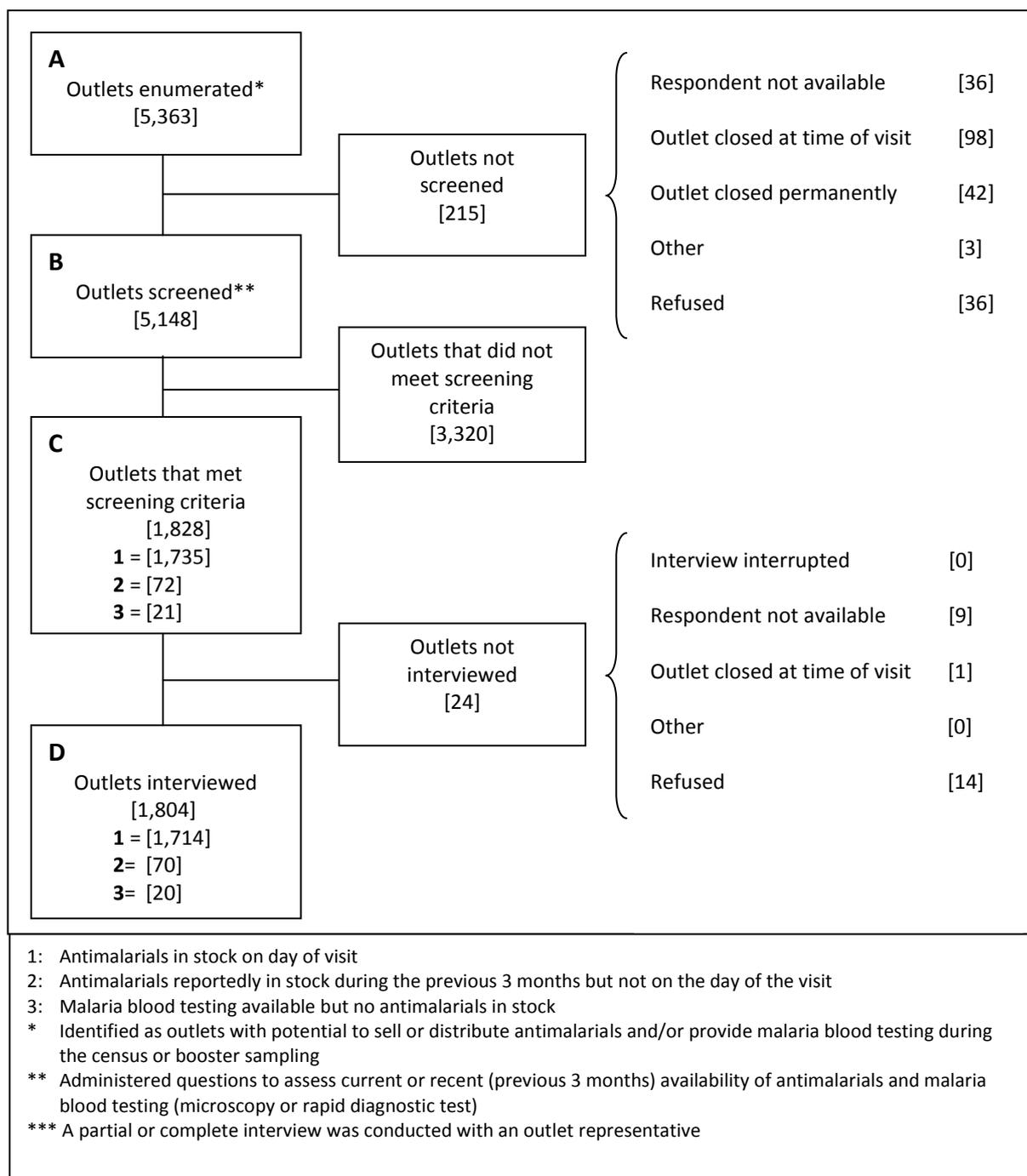
Summary of Methods and Data Collection

A nationally representative antimalarial outlet survey was conducted in Nigeria from November 7 to December 13, 2013. A full description of research design and methods is provided in Annex 3. Briefly, a representative sample of localities was selected from each of six geopolitical domains: North Central, North East, North West, South East, South South, and South West (see sampled localities in Annex 4). Within selected clusters, a census of all outlets with the potential to sell or distribute antimalarials and/or provide malaria blood testing was completed. The geographic area for sampling was extended to the local government area (LGA) for the census of public health facilities. This booster sampling strategy was used to obtain a sufficient sample size for indicator estimates within public health facilities. Outlets were screened to determine eligibility. Outlets eligible for the survey met at least one of three criteria: 1) one or more antimalarials were in stock on the day of the survey; 2) one or more antimalarials were in stock in the three months preceding the survey; and/or 3) malaria blood testing (microscopy or RDT) was available. Outlets that do not serve the general public (e.g. military facilities) were excluded from the study. The results of the census are summarized in Figure 1. A detailed sample summary is provided in Annex 5.

A structured questionnaire was used to complete an audit of all antimalarials and RDTs as well as a provider interview (see Annex 6). See Annex 7 and Annex 8 for detailed summaries of antimalarials and RDTs audited.

Double data entry was completed using Microsoft Access and Stata 12.1 (©StataCorp, College Station, TX) was used for all analyses. Data were weighted to account for variation in probability of outlet selection (see Annex 9), and standard error calculation reflected clustering of outlets at sub-county, county and district levels. Standard indicators were constructed according to definitions applied across ACTwatch project countries (see Annex 10).

Figure 1: Survey flow diagram, Nigeria, 2013

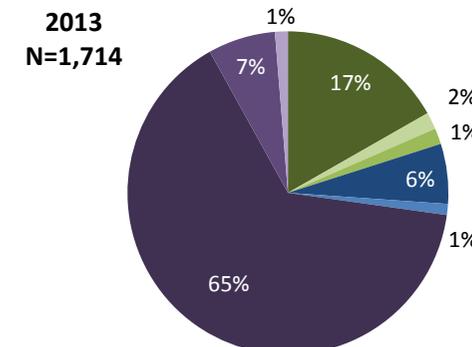
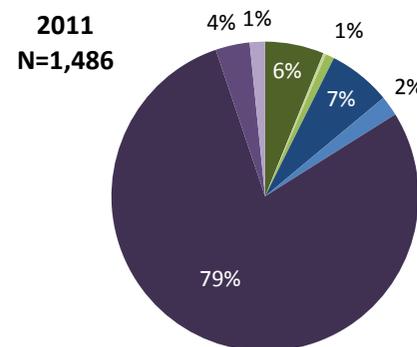
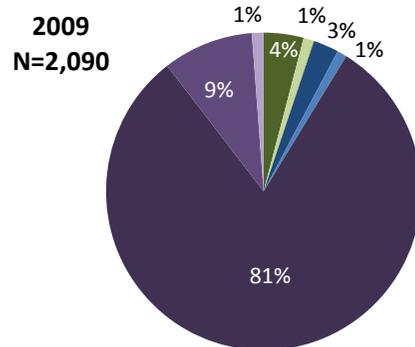


Summary of Key Findings

Figure 2. Market composition: outlet type distribution, 2009-2013

Among all outlets with at least one antimalarial in stock, across survey round

- Public Health Facility
- CHW
- Private Not-for-Profit Health Facility
- Private for-Profit Health Facility
- Pharmacy
- Drug Store (PPMV)
- General Retailer
- Itinerant Drug Vendor



The majority of antimalarial-stocking outlets were drug stores (patent proprietary medicine vendors or PPMV) in 2009 (81%), 2011 (79%) and 2013 (65%).

Figure 3. Market composition: outlet type distribution, 2013 geopolitical zone

Among all outlets with at least one antimalarial in stock, across geopolitical zone, 2013

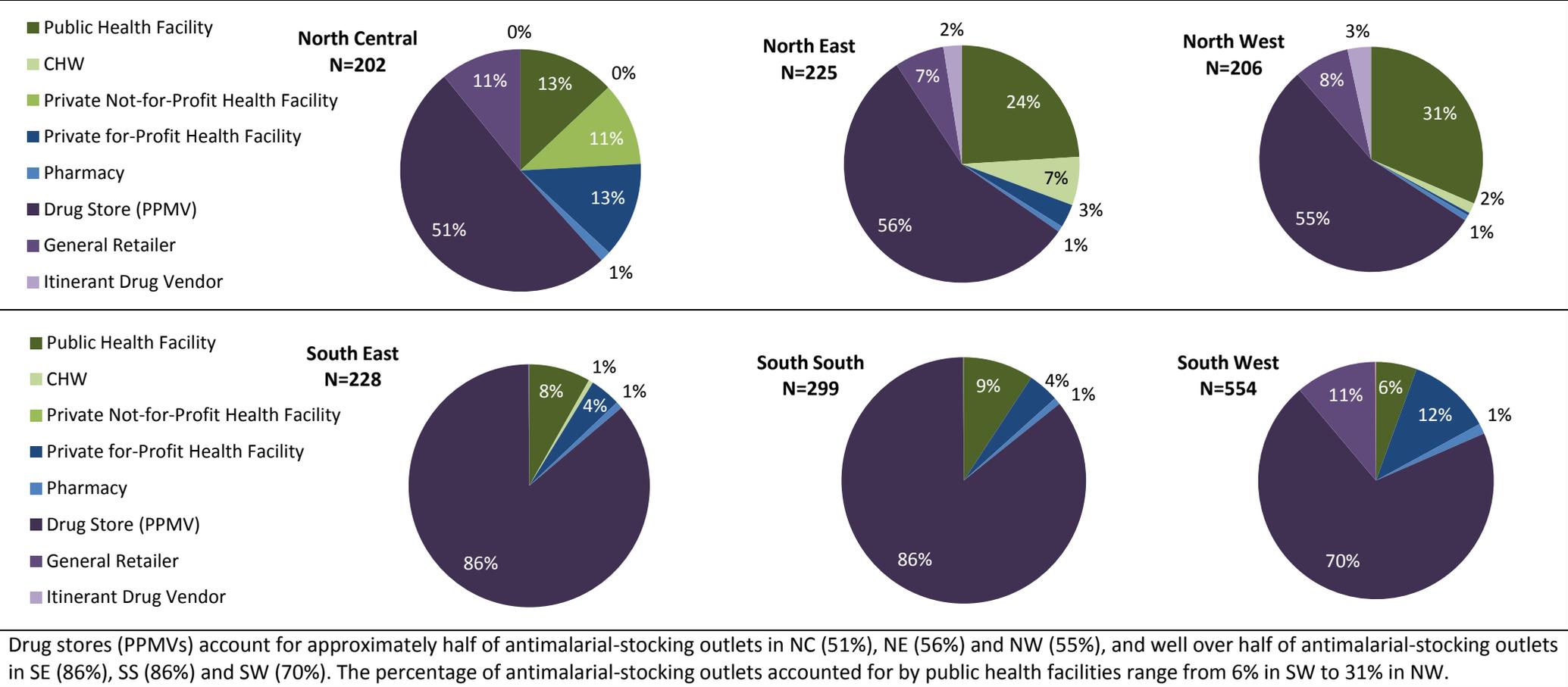
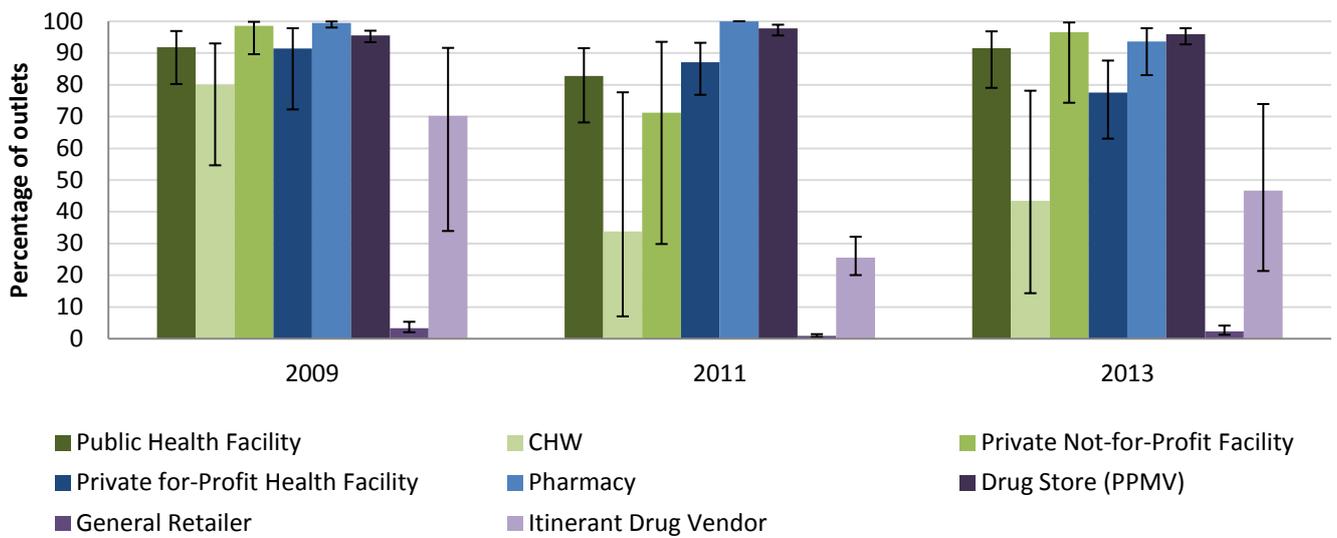
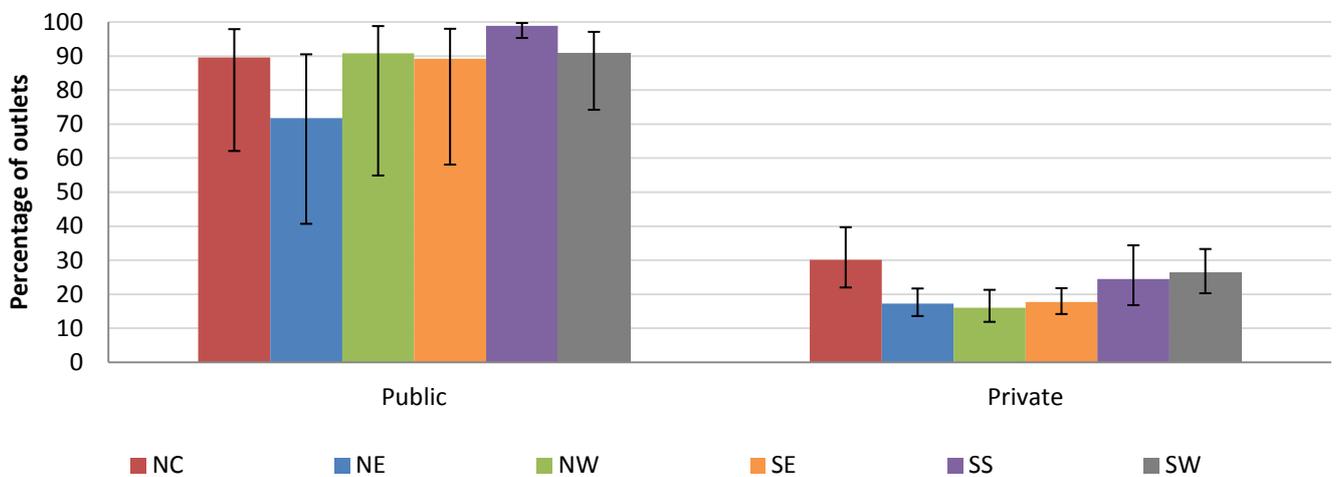


Figure 4. Percentage of outlets with at least one antimalarial in stock on the day of the survey, 2009-2013
Among all screened outlets, across survey round



Antimalarial availability among public and private health facilities remained high over time. In 2013, antimalarials were available among most public health facilities (92%), private not-for-profit facilities (97%) and private for-profit facilities (78%) as well as among most pharmacies (94%) and drug stores (96%)

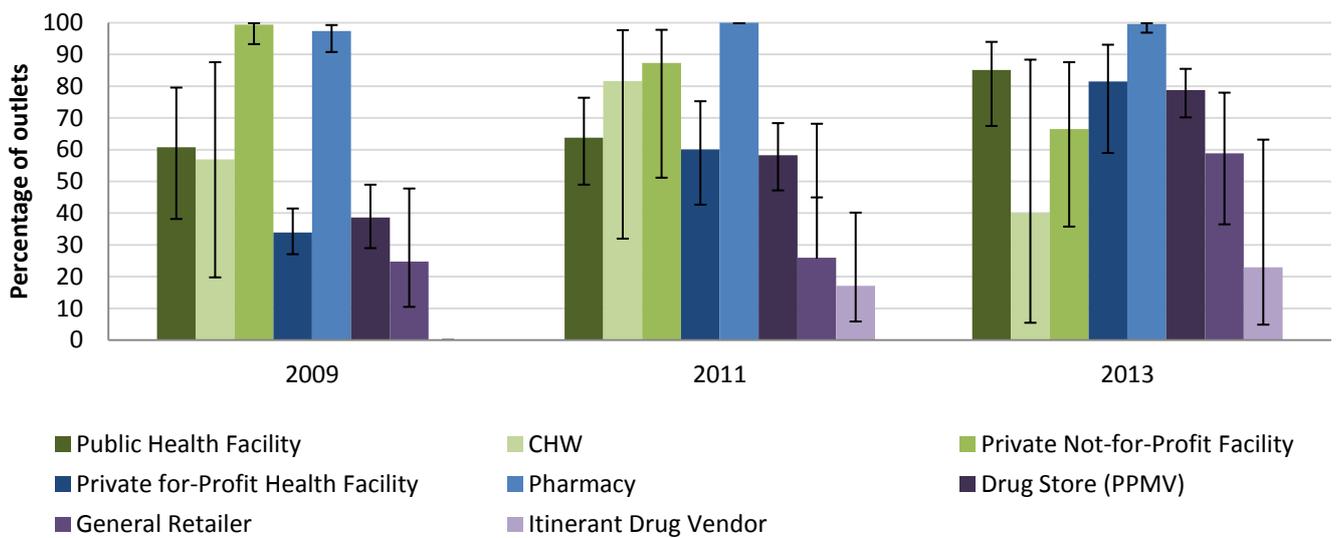
Figure 5. Percentage of outlets with at least one antimalarial in stock on the day of the survey, 2013
Geopolitical zone
Among all screened outlets, across geopolitical zone, 2013



Antimalarial availability among public sector outlets was highest in the SS (99%) and lowest in NE (72%). Private sector antimalarial availability was relatively high in NC (30%) as compared with NE (17%), NW (16%), and SE (18%).

Figure 6. Percentage of antimalarial-stocking outlets with ACT in stock on the day of the survey, 2009-2013

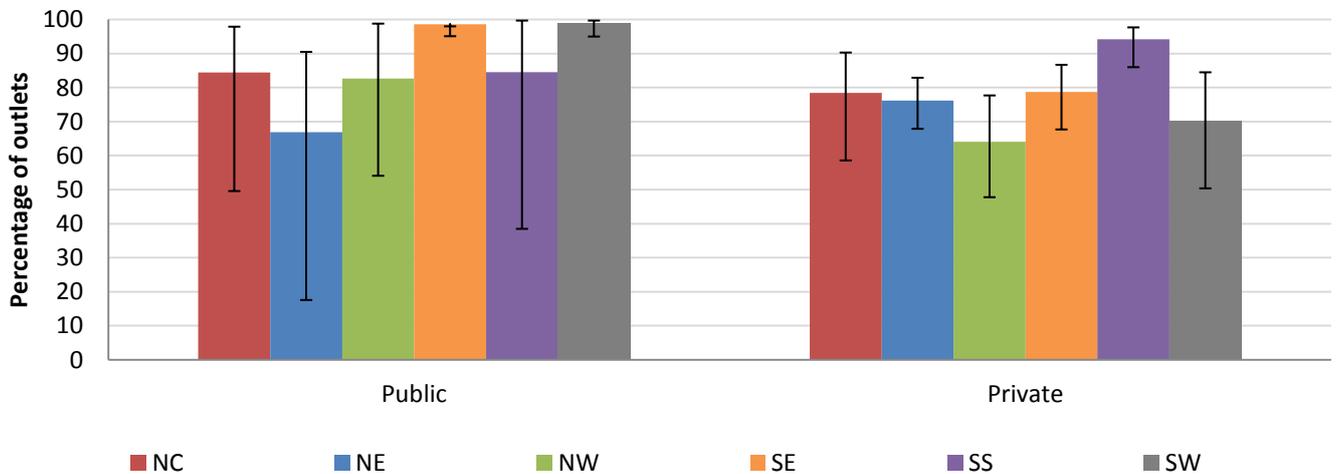
Among all outlets with at least one antimalarial in stock, across survey round



Availability of any ACT among antimalarial-stocking outlets increased over time most notably among private sector outlet types including private for-profit facilities (2009, 34%; 2013, 82%) and drug shops (2009, 39%; 2013, 79%).

Figure 7. Percentage of antimalarial-stocking outlets with ACT in stock on the day of the survey, 2013

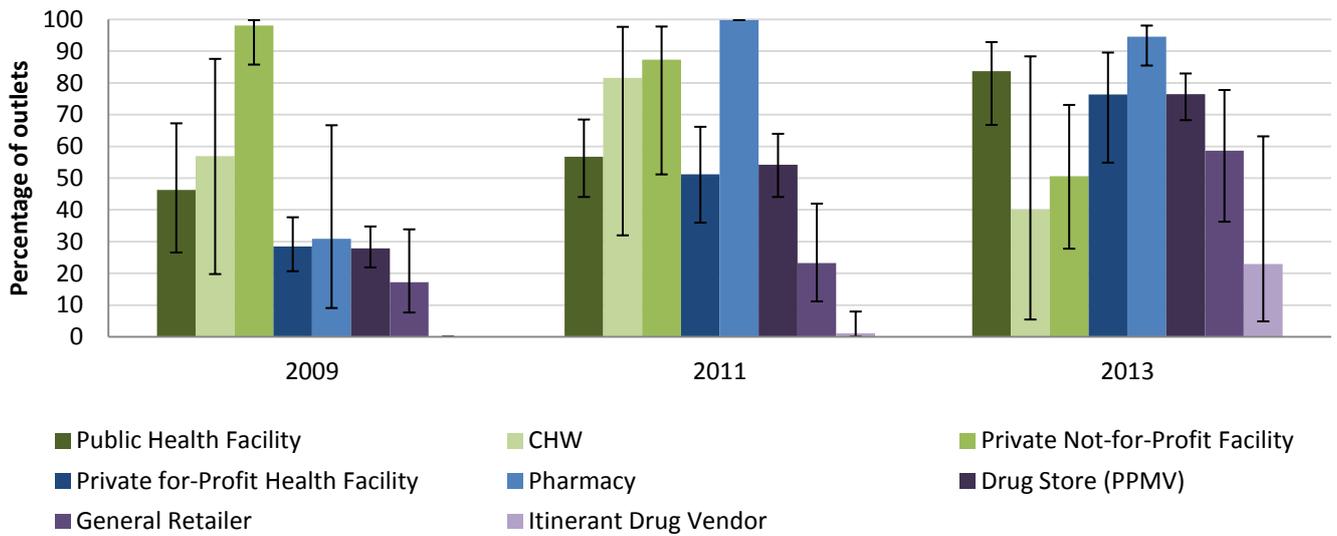
Among all outlets with at least one antimalarial in stock, across geopolitical zone, 2013



ACT availability among antimalarial-stocking public sector outlets was higher among SE (99%) and SW zones (99%) as compared with NE (67%). Among private sector antimalarial-stocking outlets, ACT availability was highest in SS (94%) and lowest in NW (64%).

Figure 8. Percentage of antimalarial-stocking outlets with quality-assured ACT in stock on the day of the survey, 2009-2013

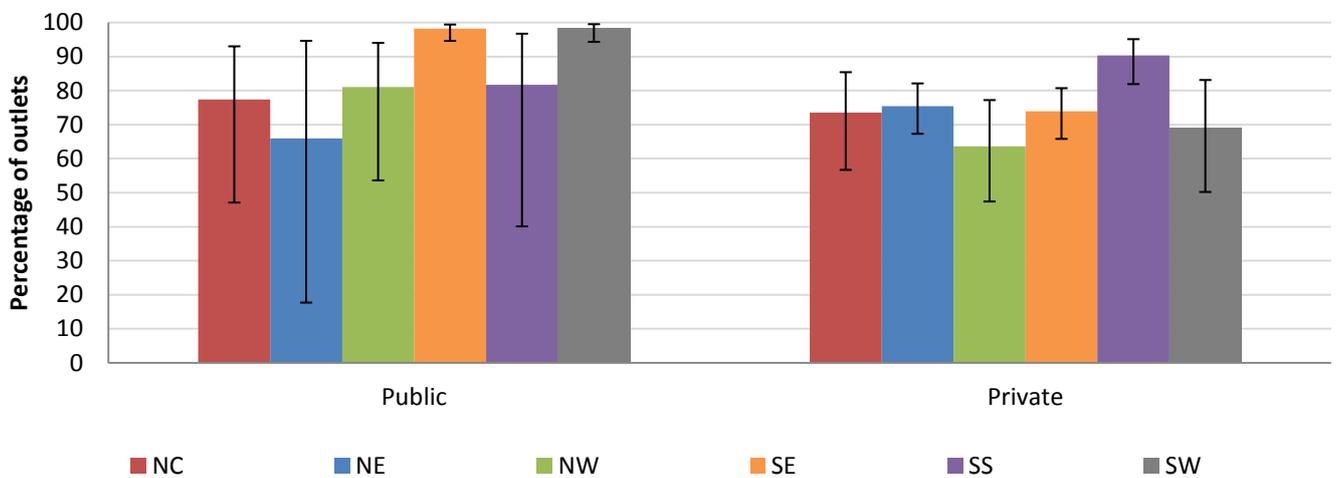
Among all outlets with at least one antimalarial in stock, across survey round



Availability of quality-assured ACT (QAACT) among antimalarial-stocking outlets has improved dramatically over time in the public and private sectors such that by 2013, that QAACT was in stock among the majority of public health facilities (84%), private for-profit facilities (76%), pharmacies (95%), and drug shop (77%).

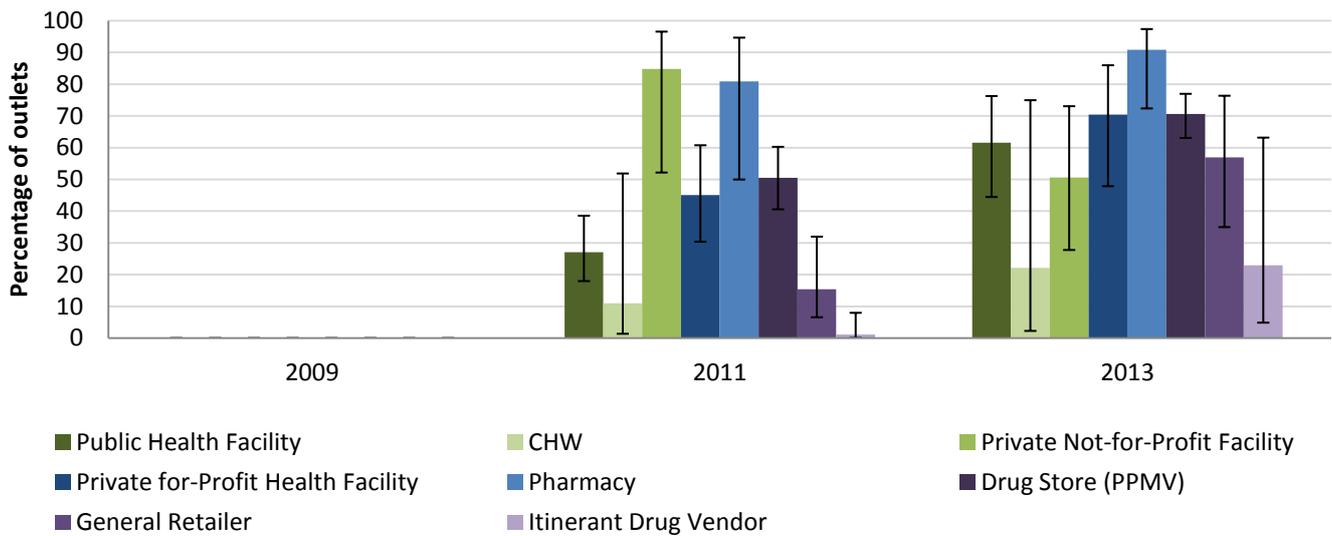
Figure 9. Percentage of antimalarial-stocking outlets with quality-assured ACT in stock on the day of the survey, 2013 geopolitical zone

Among all outlets with at least one antimalarial in stock, across geopolitical zone, 2013



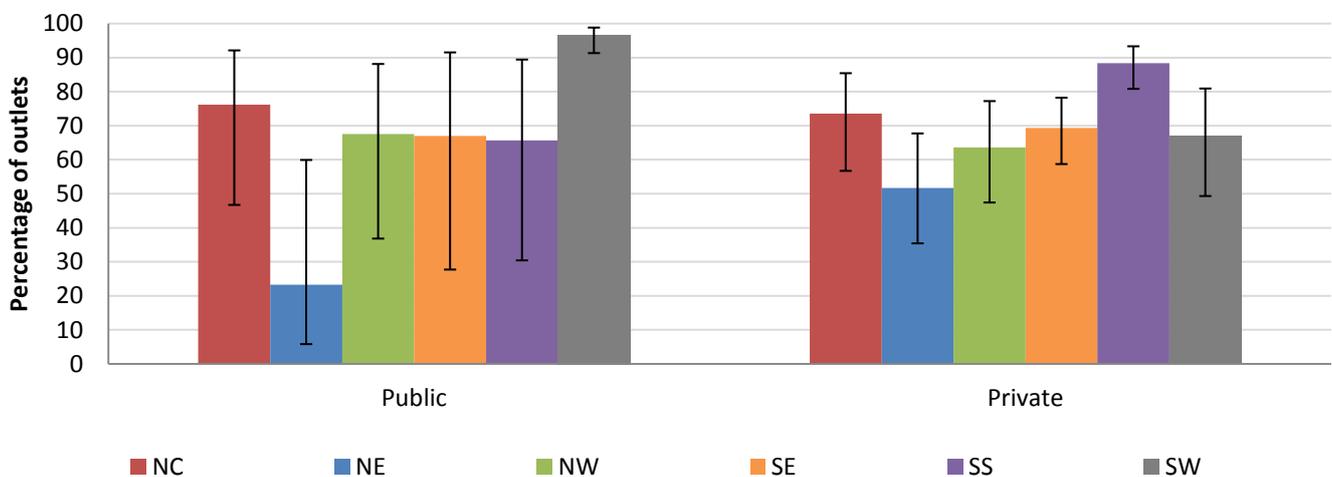
QAACT availability among antimalarial-stocking public sector outlets was notably high in SE (98%) and SW (98%) as compared with other zones including NE (66%). Among private sector antimalarial-stocking outlets, QAACT availability ranged from 64% in NW to 90% in SS.

Figure 10. Percentage of antimalarial-stocking outlets with quality-assured ACT marked with the 'green leaf' logo in stock on the day of the survey, 2009-2013
Among all outlets with at least one antimalarial in stock, across survey round



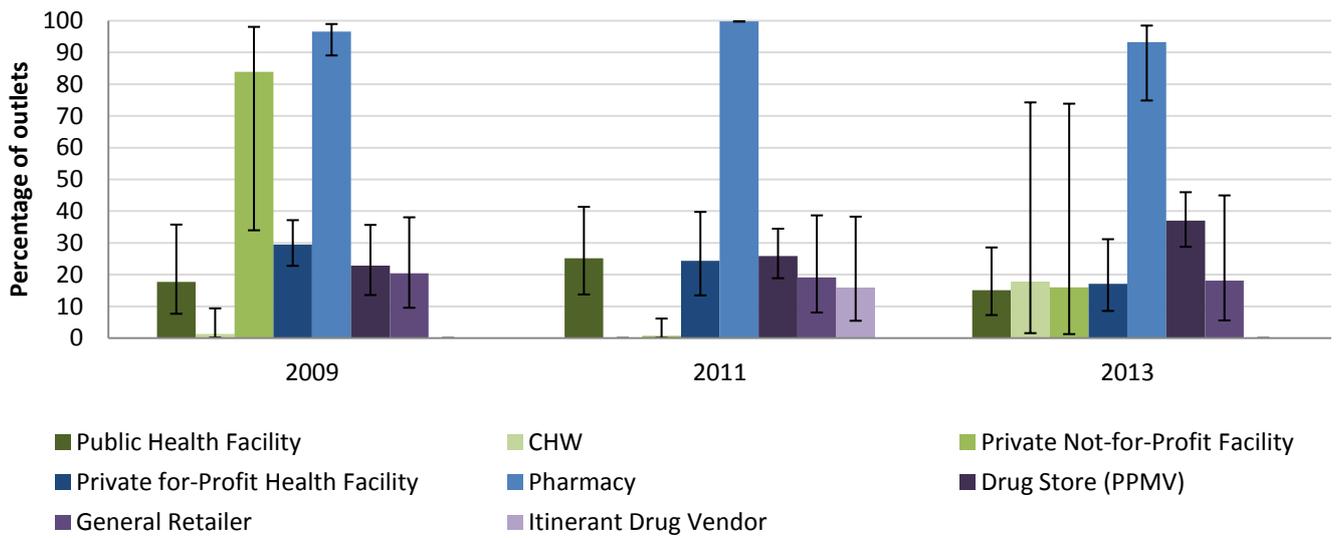
Availability of QAACT with the 'green leaf' logo increased among most public and private sector outlet types between the end of the AMFm pilot period in 2011 and the 2013 survey. In 2013, more than half of public health facilities (62%), private for-profit health facilities (70%) and drug stores (71%) were stocking 'green leaf' QAACT, and over 90% of pharmacies had the 'green leaf' QAACT in stock.

Figure 11. Percentage of antimalarial-stocking outlets with quality-assured ACT marked with the 'green leaf' logo in stock on the day of the survey, geopolitical zone 2013
Among all outlets with at least one antimalarial in stock, across geopolitical zone, 2013



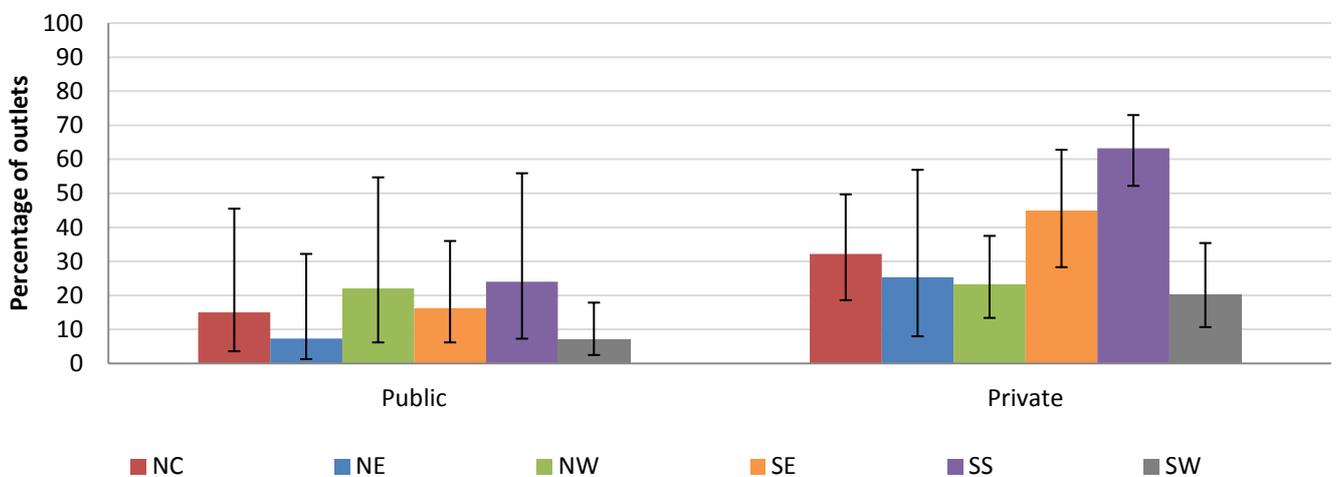
QAACT with the 'green leaf' logo was available among more than half of antimalarial-stocking public sector outlets in all zones except NE, where availability was notably low (23%). Nearly all antimalarial-stocking public sector outlets in NW had 'green leaf' QAACT in stock (97%). Across zones, more than half of antimalarial-stocking private sector outlets had 'green leaf' QAACT in stock, and in SS, nearly 90% of private sector outlets were stocking QAACT with the green leaf logo.

Figure 12. Percentage of antimalarial-stocking outlets with non-quality-assured ACT in stock on the day of the survey, 2009-2013
Among all outlets with at least one antimalarial in stock, across survey round



Non-quality-assured ACT (non-QA ACT) was available among more than 90% of pharmacies across survey rounds, and trends in the data suggest increasing availability among drug stores (PPMVs) from 23% in 2009 to 37% in 2013.

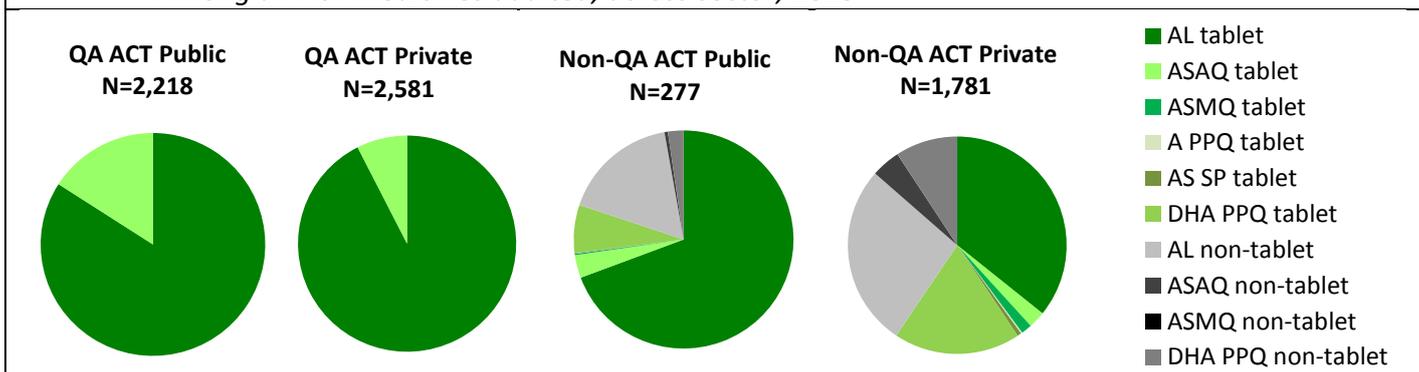
Figure 13. Percentage of antimalarial-stocking outlets with non-quality-assured ACT in stock on the day of the survey, geopolitical zone 2013
Among all outlets with at least one antimalarial in stock, across geopolitical zone 2013



Non-QA ACT availability was similar across zones among public sector outlets. Among antimalarial-stocking private sector outlets, non-QA ACT was more commonly available in SS (63%) as compared with other zones including NW (23%) and SW (20%).

Figure 14. Types of quality-assured ACT and non-quality-assured ACT found among public and private sector outlets, 2013

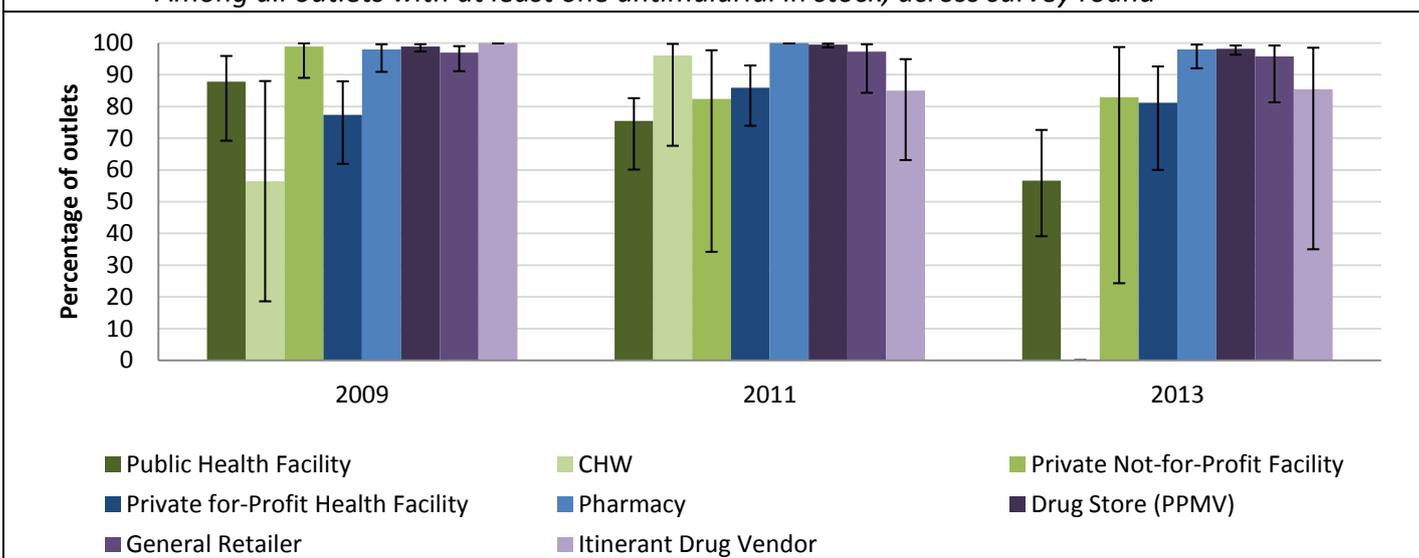
Among all ACT medicines audited, across sector, 2013



QAACT treatments available in the public and private sector were largely AL tablet formulations. Common non-QA ACT treatments available in the public and private sector included AL tablets (public, 69%; private, 36%) and AL suspensions (e.g. Lonart suspension) (public, 17%; private, 27%).

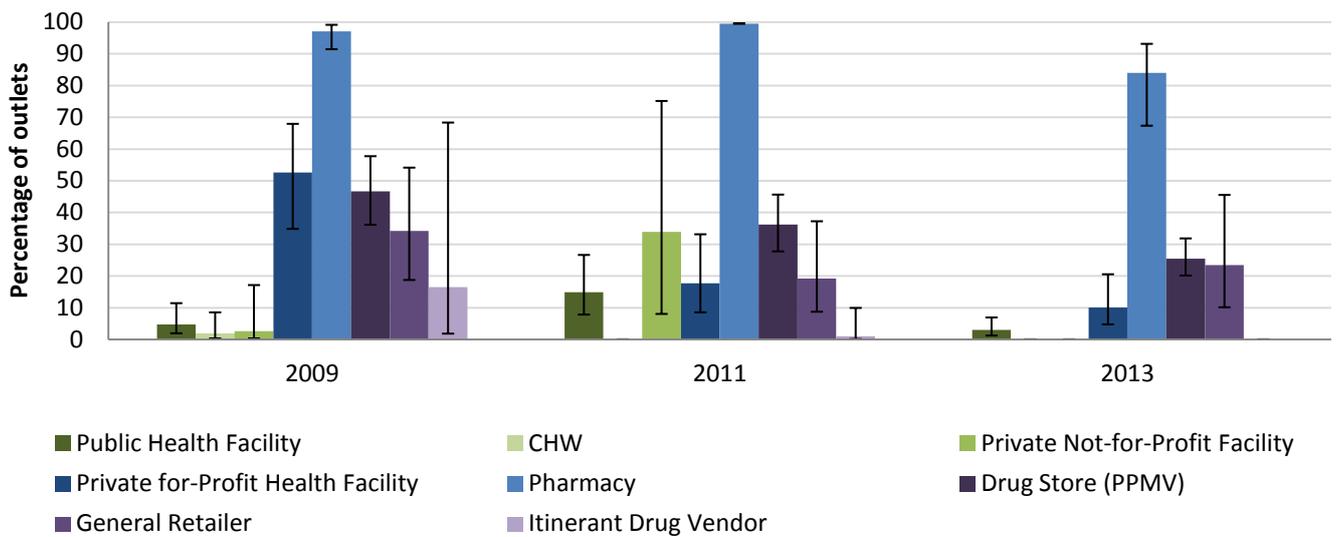
Figure 15. Percentage of antimalarial-stocking outlets with non-artemisinin therapy in stock on the day of the survey, 2009-2013

Among all outlets with at least one antimalarial in stock, across survey round



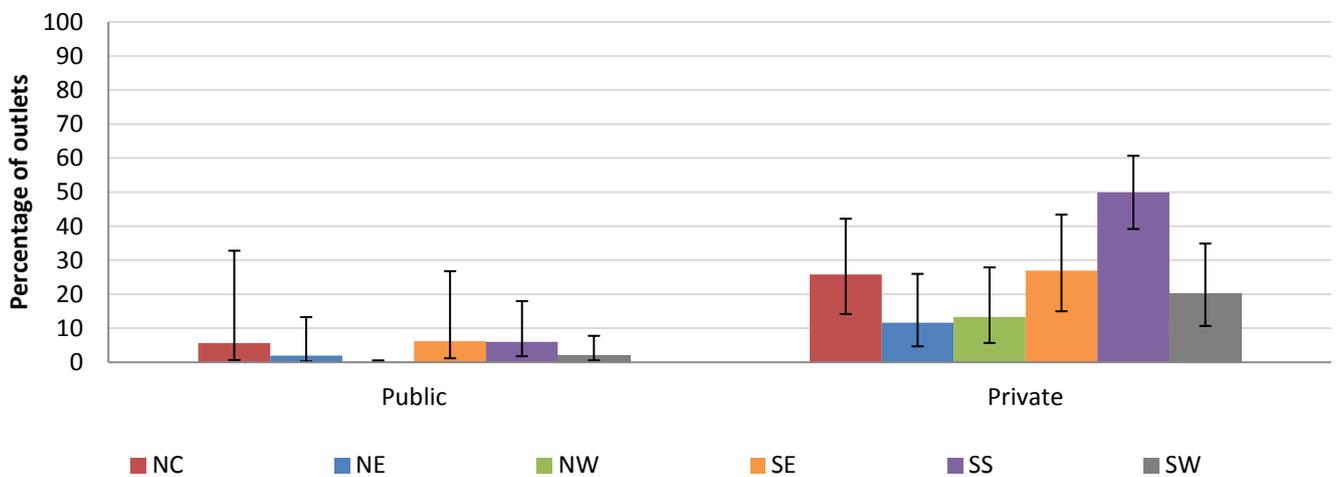
Nearly all private sector antimalarial-stocking outlets had non-artemisinin therapy in stock across survey rounds. Non-artemisinin therapy availability declined over time among antimalarial-stocking public health facilities from 88% in 2009 to 57% in 2013.

Figure 16. Percentage of antimalarial-stocking outlets with oral artemisinin monotherapy in stock on the day of the survey, 2009-2013
Among all outlets with at least one antimalarial in stock, across survey round



Oral artemisinin monotherapy availability has declined among most private sector outlet types including private for-profit health facilities (2009, 53%; 10%) and drug shops (2009, 47%; 26%) but has remained high among pharmacies. In 2013, 84% of antimalarial-stocking pharmacies had oral artemisinin monotherapy in stock.

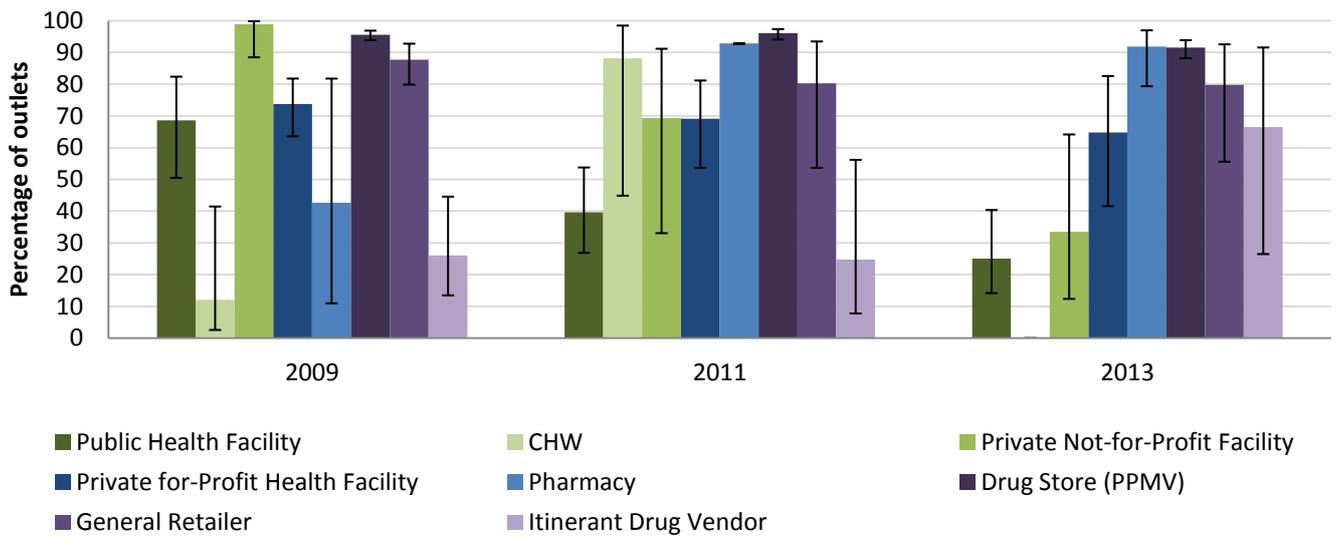
Figure 17. Percentage of antimalarial-stocking outlets with oral artemisinin monotherapy in stock on the day of the survey, geopolitical zone 2013
Among all outlets with at least one antimalarial in stock, across geopolitical zone, 2013



Oral artemisinin monotherapy availability among antimalarial-stocking private sector outlets was relatively high in SS (50%) as compared with other zones including NE (12%), NW (13%), and SW (20%).

Figure 18. Percentage of antimalarial-stocking outlets with chloroquine in stock on the day of the survey, 2009-2013

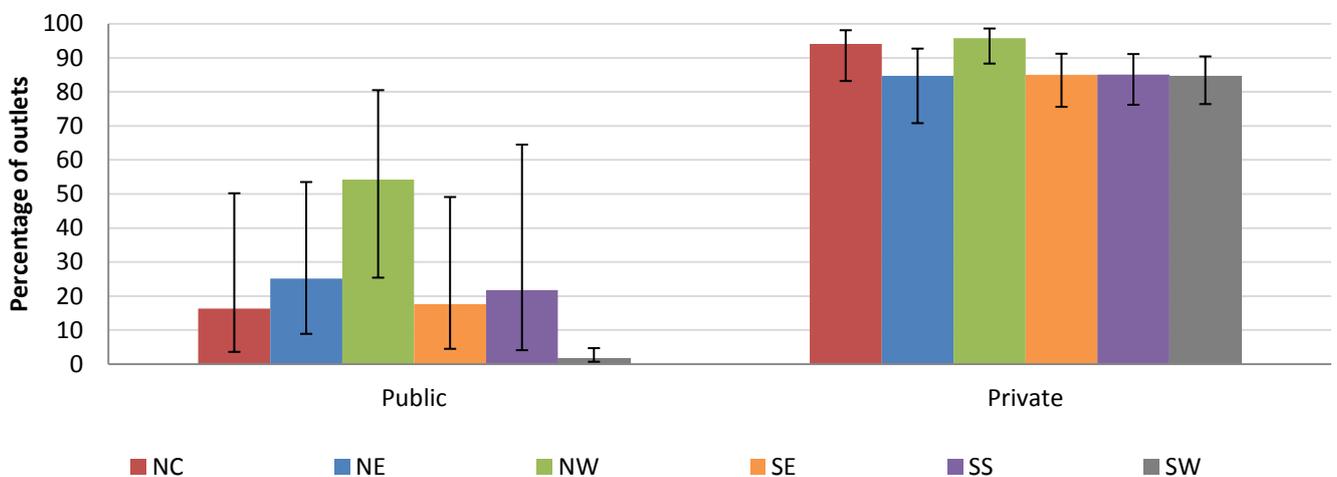
Among all outlets with at least one antimalarial in stock, across survey round



Chloroquine availability has declined among antimalarial-stocking public health facilities (2009, 69%; 2013, 25%) and private not-for-profit facilities (2009, 99%; 2013, 34%) but has remained high among antimalarial-stocking pharmacies (2013, 92%) drug shops (92%), and general retailers (80%).

Figure 19. Percentage of antimalarial-stocking outlets with chloroquine in stock on the day of the survey, geopolitical zone 2013

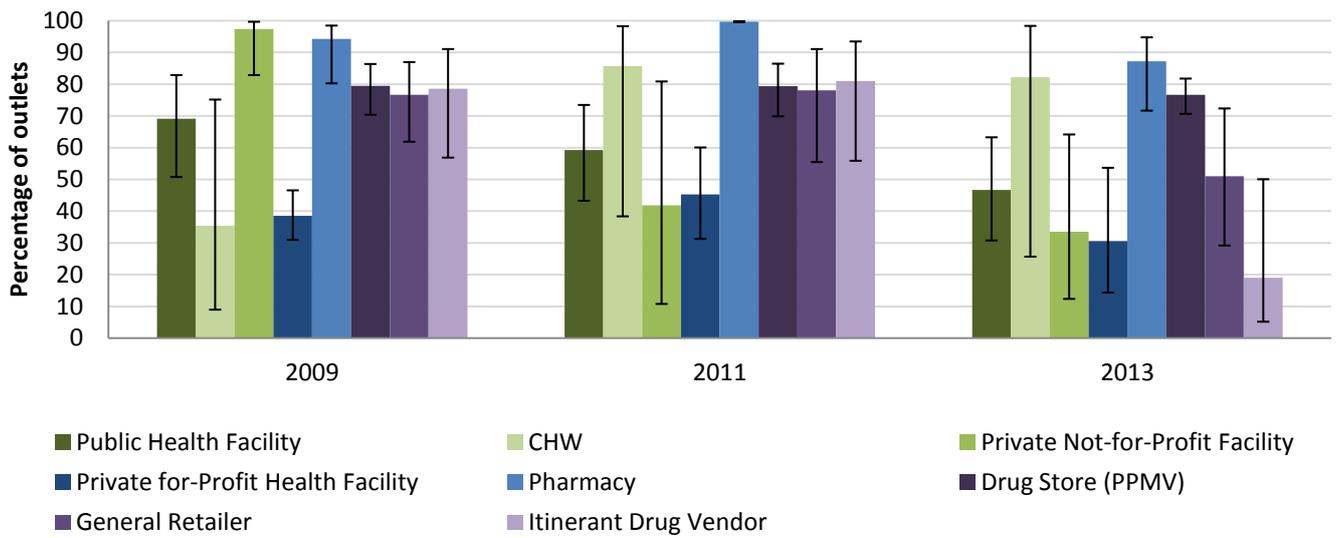
Among all outlets with at least one antimalarial in stock, across geopolitical zone, 2013



Among public sector antimalarial-stocking outlets, chloroquine availability was highest in NW (54%) and compared with other zones including SW (2%). Chloroquine availability was similar among antimalarial-stocking private sector outlets across zones.

Figure 20. Percentage of antimalarial-stocking outlets with SP in stock on the day of the survey, 2009-2013

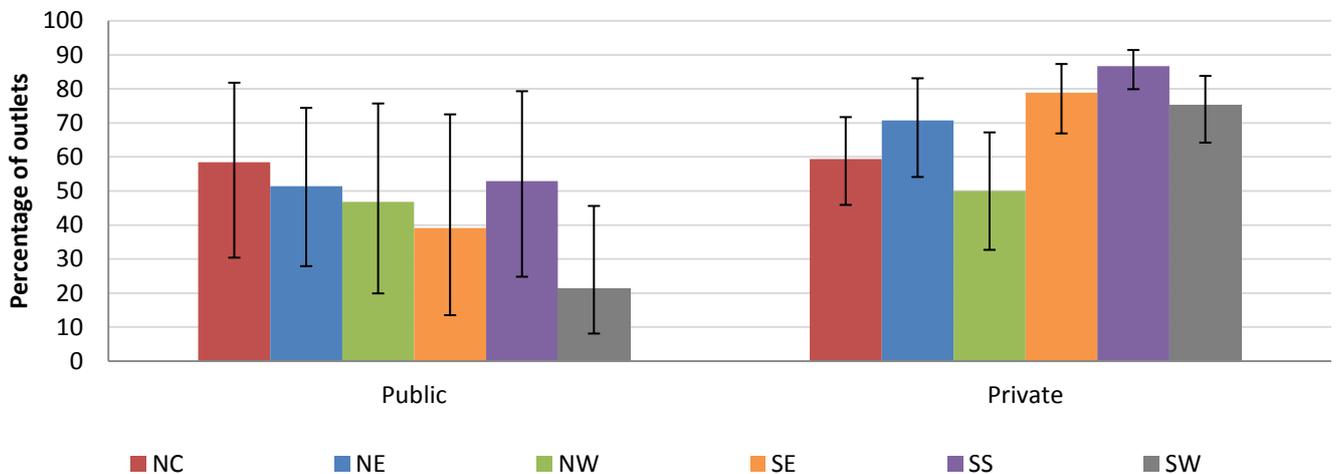
Among all outlets with at least one antimalarial in stock, across survey round



SP availability among antimalarial-stocking public health facilities declined between 2009 (69%) and 2013 (47%). A decline was also observed among private not-for-profit facilities (2009, 97%; 2013, 34%). SP availability remained high over time among pharmacies (2013, 87%) and drug shops (2013, 77%).

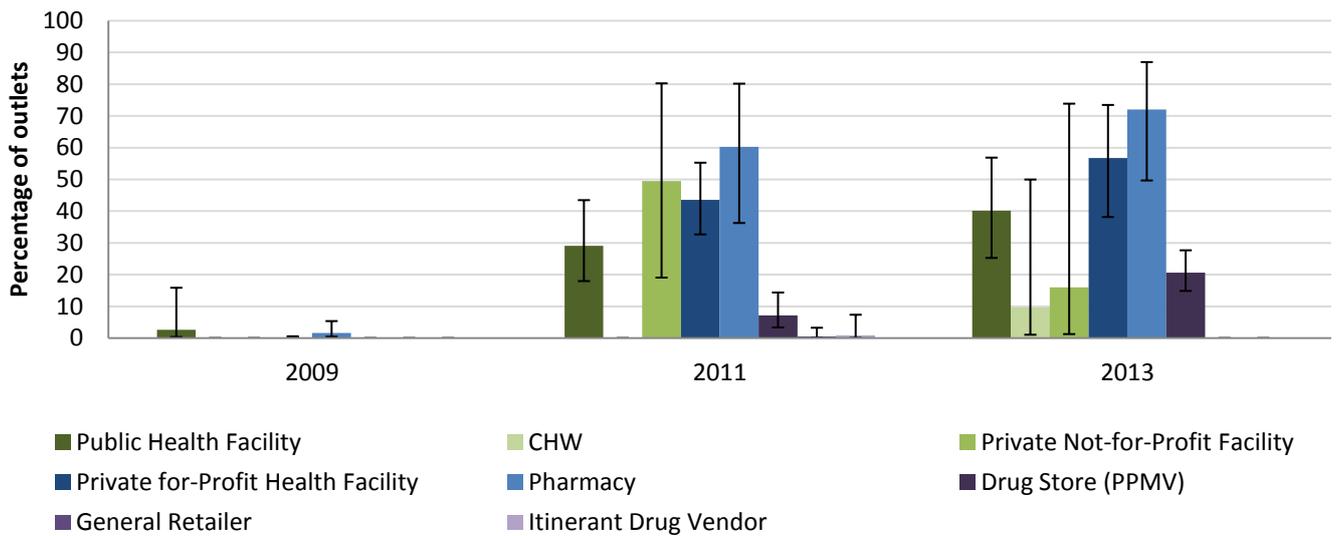
Figure 21. Percentage of antimalarial-stocking outlets with SP in stock on the day of the survey, 2013

Among all outlets with at least one antimalarial in stock, across geopolitical zone, 2013



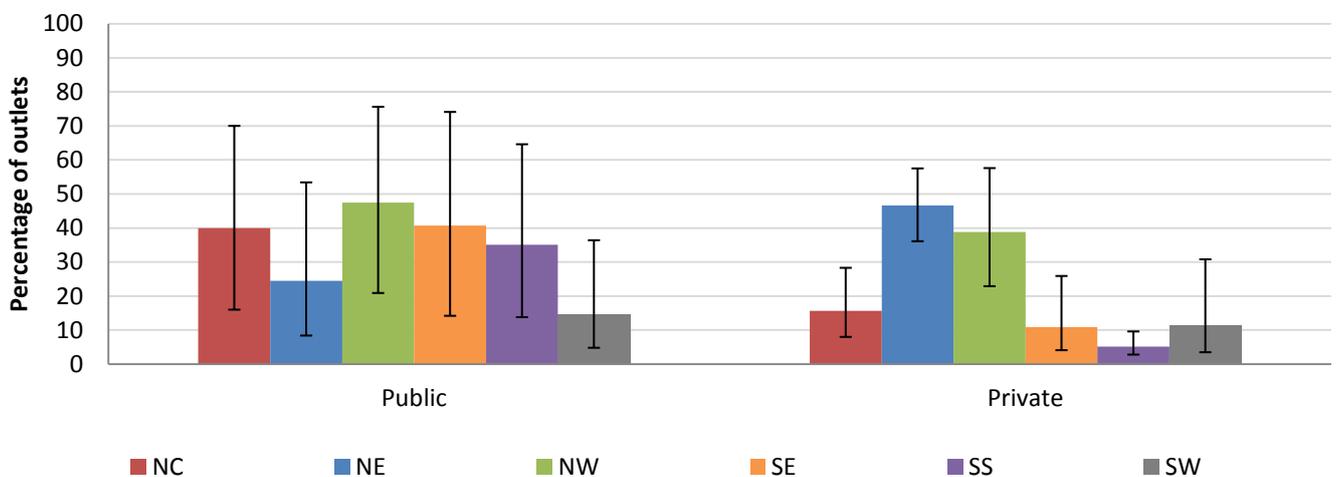
Among antimalarial-stocking public sector outlets, trends in SP availability suggest lower availability in the SW (21%) as compared with other zones. Private sector SP availability was lowest in NW (50%) and highest in SS (87%).

Figure 22. Percentage of antimalarial-stocking outlets with any severe malaria treatment in stock on the day of the survey, 2009-2013
Among all outlets with at least one antimalarial in stock, across survey round



Treatments for severe malaria include artesunate IV/IM, quinine IV/IM, artemether IV/IM, and artemotil IV/IM. Severe malaria treatment availability increased over time among all outlet types. In 2013, severe malaria treatment was available among 40% of antimalarial-stocking public health facilities and 57% of private for-profit facilities.

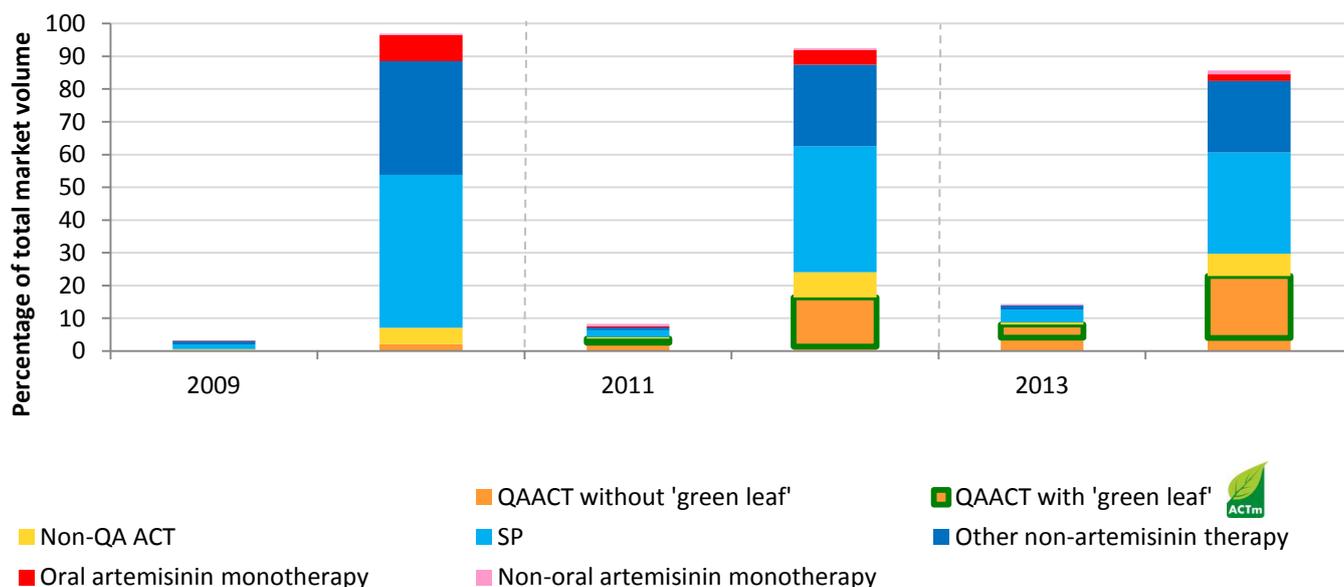
Figure 23. Percentage of antimalarial-stocking outlets with any severe malaria treatment in stock on the day of the survey, 2013 geopolitical zone
Among all outlets with at least one antimalarial in stock, across geopolitical zone, 2013



Among public antimalarial-stocking public sector outlets, trends in the data suggest lower availability of severe malaria treatment in NW (15%) and NE (25%) as compared with other zones. Among antimalarial-stocking private sector outlets, severe malaria treatment was notably higher among NE (48%) and NW (39%) as compared with other zones.

Figure 24. Antimalarial market share, 2009-2013

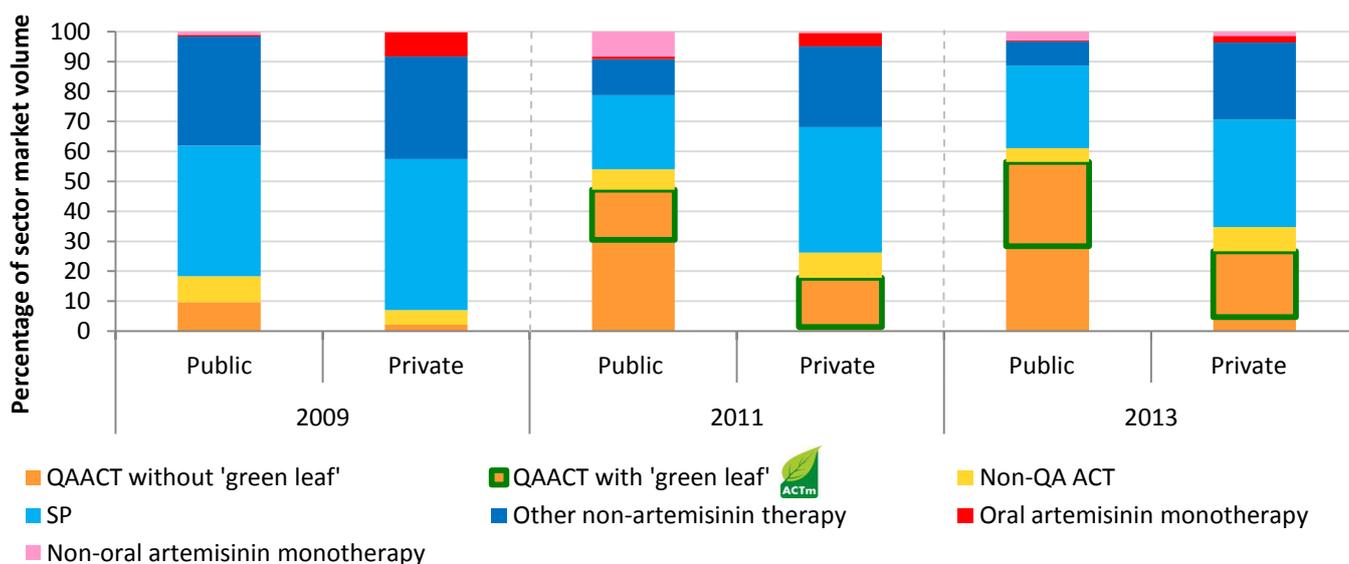
Relative market volume (sale/distribution) of antimalarial AETDs, by sector and antimalarial class, across survey round



The private sector accounted for the majority of antimalarial distributed across survey rounds and in 2013, more than 85% of all antimalarial volumes was accounted for by private sector sale/distribution. Market share for QAACT increased from 2% in 2009 to 31% in 2013. In 2013, QAACT with the 'green leaf' logo accounted for nearly one-quarter of all antimalarials distributed in Nigeria (23%). The most commonly distributed antimalarial across survey rounds was SP, accounting for 35% of the market share in 2013 – a reduction from 48% in 2009. Oral artemisinin monotherapy accounted for 8% of the antimalarial market share in 2009 and 2% in 2013.

Figure 25. Antimalarial market share within sector, 2009-2013

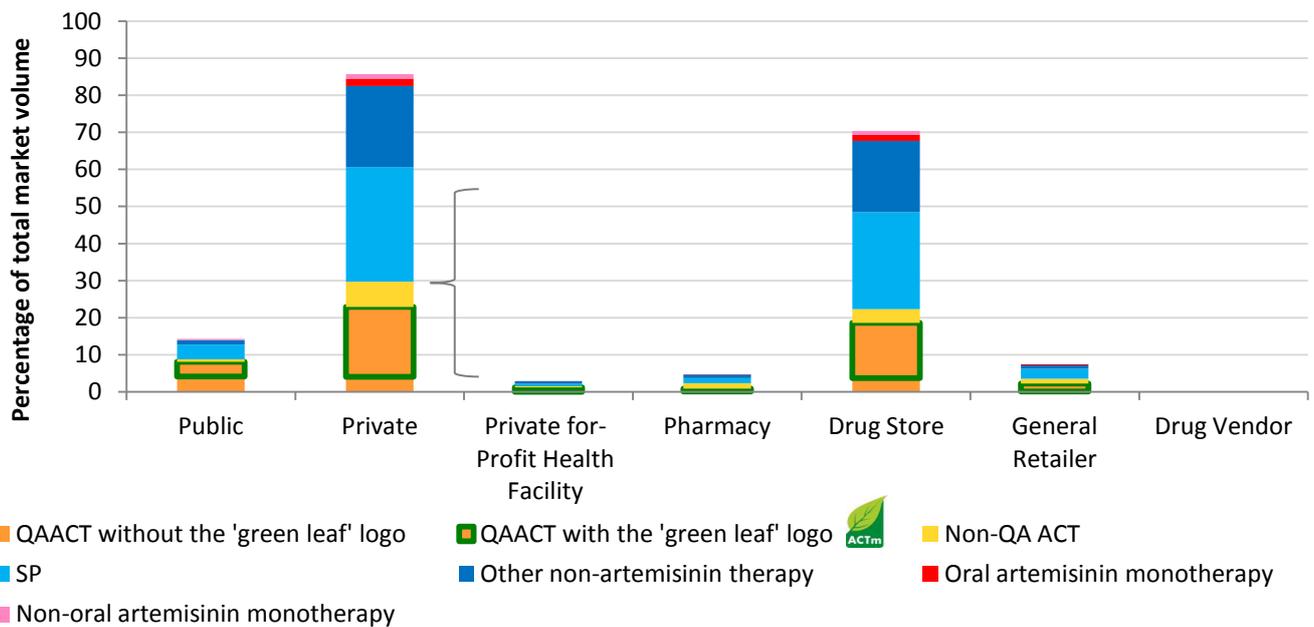
Relative market volume (sale/distribution) of antimalarial AETDs, within sector, by antimalarial class, across survey round



Among antimalarials distributed in the public sector, QAACT market share was 10% in 2009 and increased to 57% in 2013. In the private sector, QAACT market share increased from 2% in 2009 to 27% in 2013. In 2013, QAACT marked with the 'green leaf' logo indicating co-payment accounted for 22% of all antimalarials distributed in the private sector and 28% in the public sector.

Figure 26. Antimalarial market share, 2013

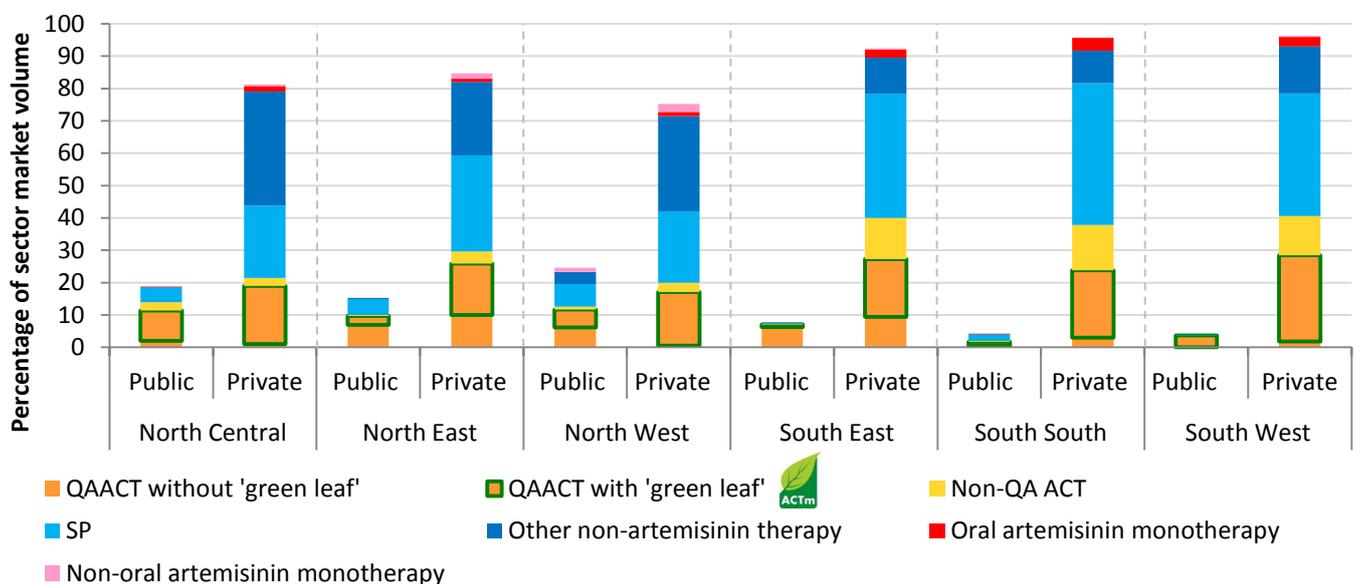
Relative market volume (sale/distribution) of antimalarial AETDs, by outlet type and antimalarial class, 2013



Private sector market share in 2013 (85%) is comprised of relative market share for drug stores (PPMVs, 70%), general retailers (7%), pharmacies (5%) and private for-profit health facilities (3%).

Figure 27. Antimalarial market share, 2013 geopolitical zone

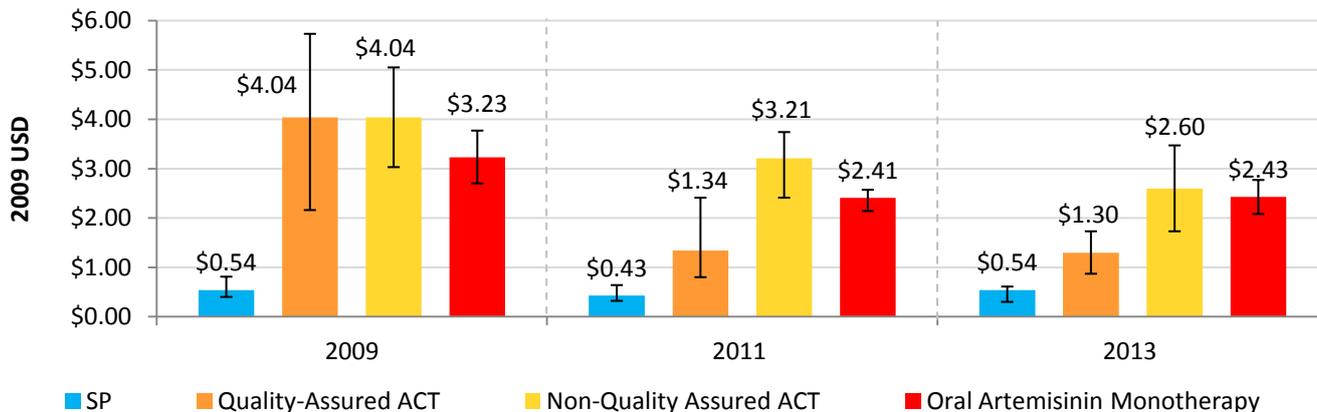
Relative market volume (sale/distribution) of antimalarial AETDs, by sector and antimalarial class, across geopolitical zone, 2013



At the time of the 2013 survey, the private sector accounted for the majority of antimalarials distributed within each geopolitical zone. However the private sector accounted for a relatively large market share in SS (96%) and SW (96%) relative to other zones including NW (72%). Market share accounted for by QAACT was lowest in SS (25%) and NW (28%) as compared with other zones: NC, 30%; NE, 36%; SE, 34%; and SW, 32%. Oral artemisinin monotherapy market share was between 1-2% across zones with the exception of SW (4%) and SS (4%).

Figure 28. Private sector median price of antimalarial adult equivalent treatment dosages (AETD), 2009-2013

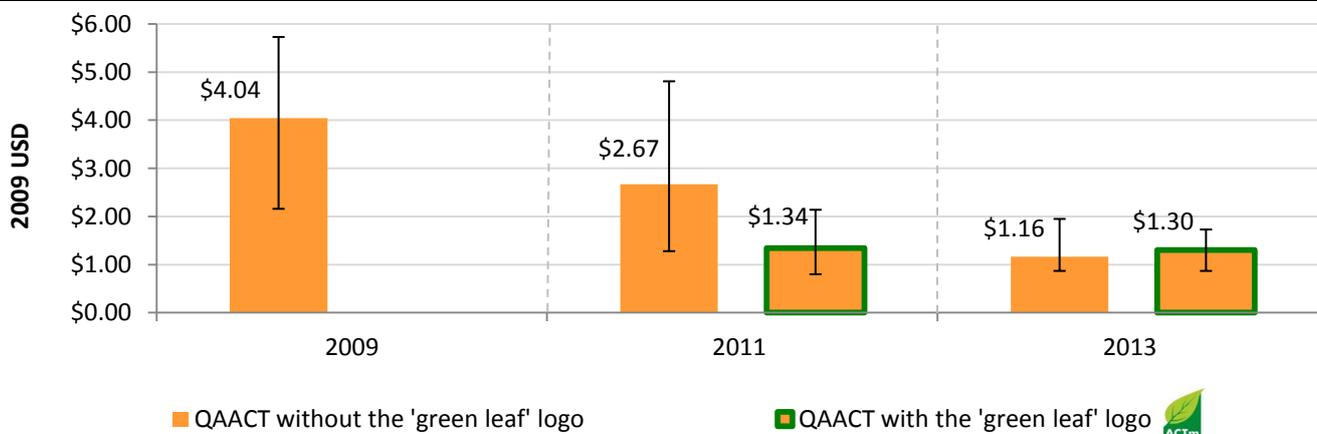
Among all SP, quality-assured ACT and non-quality-assured ACT (tablet formulation only) available in the private sector, in 2009 US dollars to account for inflation, across survey rounds



The median price of one QAACT adult equivalent treatment dose (AETD) has reduced over time. In 2009, the price of one QAACT AETD (\$4.04) was 3 times higher than the price in 2013 (\$1.30). However, in 2013 QAACT remained 2.4 times more expensive than the most popular non-artemisinin therapy, SP (\$0.54)

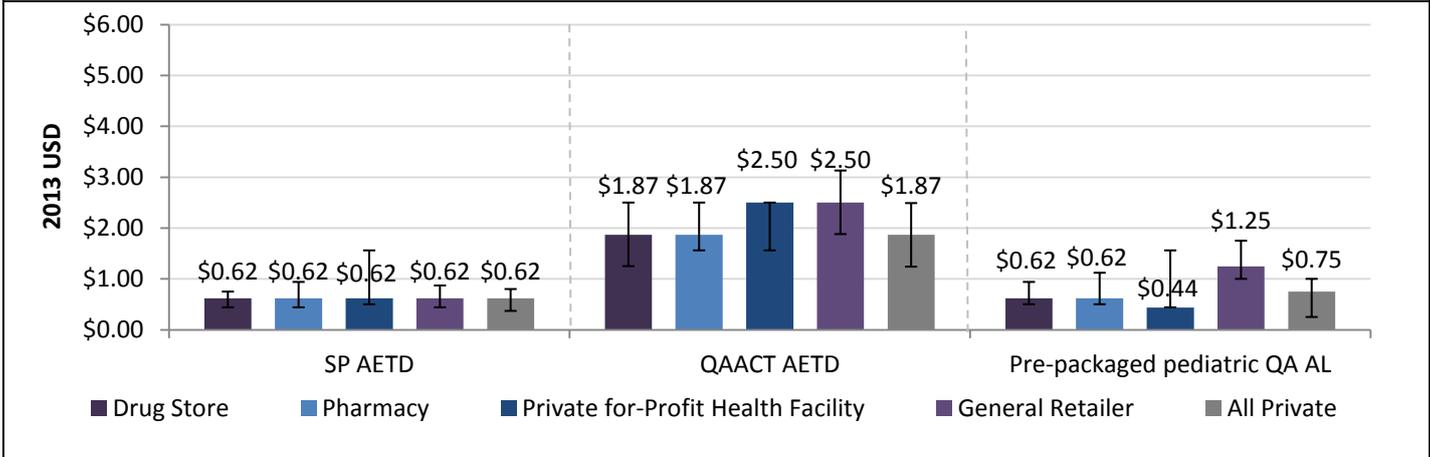
Figure 29. Private sector median price of QAACT adult equivalent treatment dosages (AETD) with and without the 'green leaf' logo, 2009-2013

Among all quality-assured ACT (tablet formulation only) available in the private sector, in 2009 US dollars to account for inflation, across survey rounds



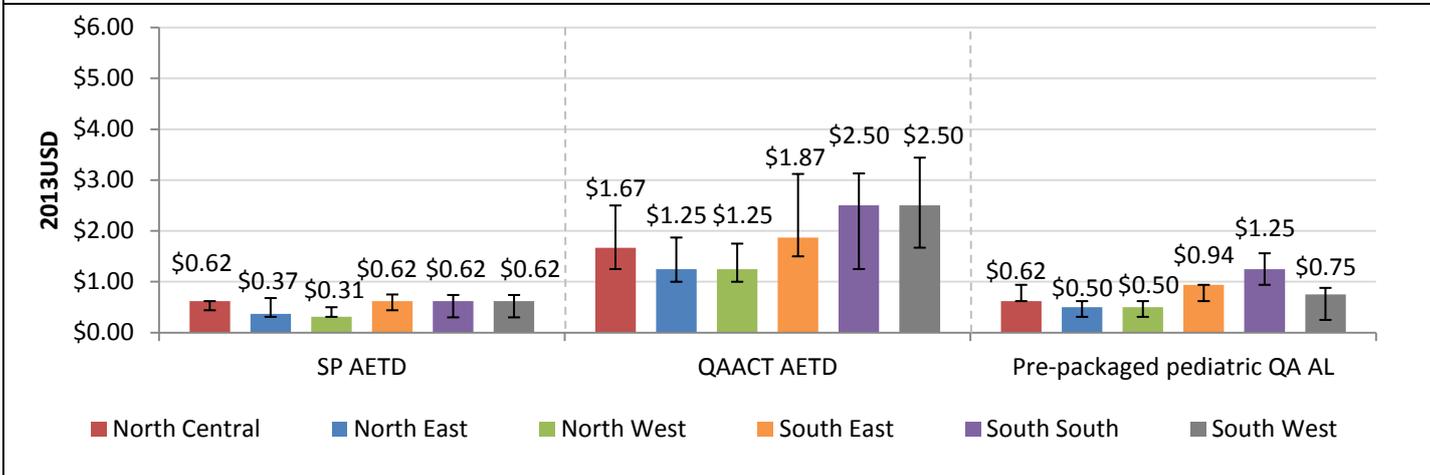
In 2013, the median price of a one QAACT AETD with the 'green leaf' logo (\$1.34) was half the price of QAACT without the logo (\$2.67). However in 2013 the median price of QAACT with (\$1.30) and without the logo (\$1.16) was similar. The price of QAACT without the 'green leaf' logo in 2011 (\$2.67) was more than 2 times as expensive as compared with the price in 2013 (\$1.16)

Figure 30. Private sector median price of SP and quality-assured ACT adult equivalent treatment dosages (AETD) and pre-packaged pediatric quality-assured AL, 2013
Among all SP, QAACT, and pre-packaged pediatric (treatment for a 2-year old child) QA AL (tablet formulation only) available in the private sector, in 2013 US Dollars



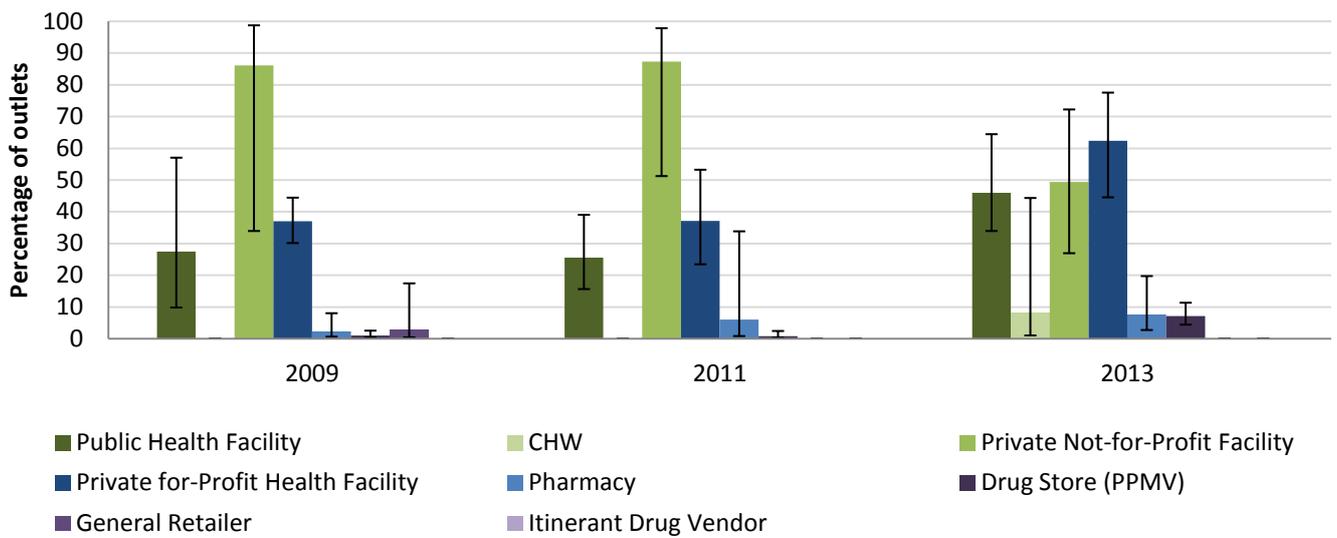
The price of SP is consistent across private sector outlet types, however the price of QAACT varies and is relatively cheaper among drug stores (PPMVs, \$1.87) and pharmacies (\$1.87) as compared with private for-profit facilities (\$2.50) and general retailers (\$2.50). The median price for one pre-packaged QA AL for a 2-year old child was \$0.62 among drug stores and pharmacies as compared with \$0.44 among private for-profit facilities and \$1.25 among general retailers.

Figure 31. Private sector median price of SP and quality-assured ACT adult equivalent treatment dosages (AETD) and pre-packaged pediatric quality-assured AL, 2013 geopolitical zone
Among all SP, QAACT, and pre-packaged pediatric (treatment for a 2-year old child) QA AL (tablet formulation only) available in the private sector, in 2013 US Dollars, across geopolitical zone, 2013



The median private sector price of one QAACT AETD in SS and SW (\$2.50) was 2 times as expensive as the price in NE and NW (\$1.25). The price of one pre-packaged QA AL for a 2-year old child was \$0.50 in NE and NW as compared with \$1.25 in SS and \$0.75 in SW. Similar to trends in QAACT prices, the median private sector price of SP was lower in NE and NW as compared with other zones.

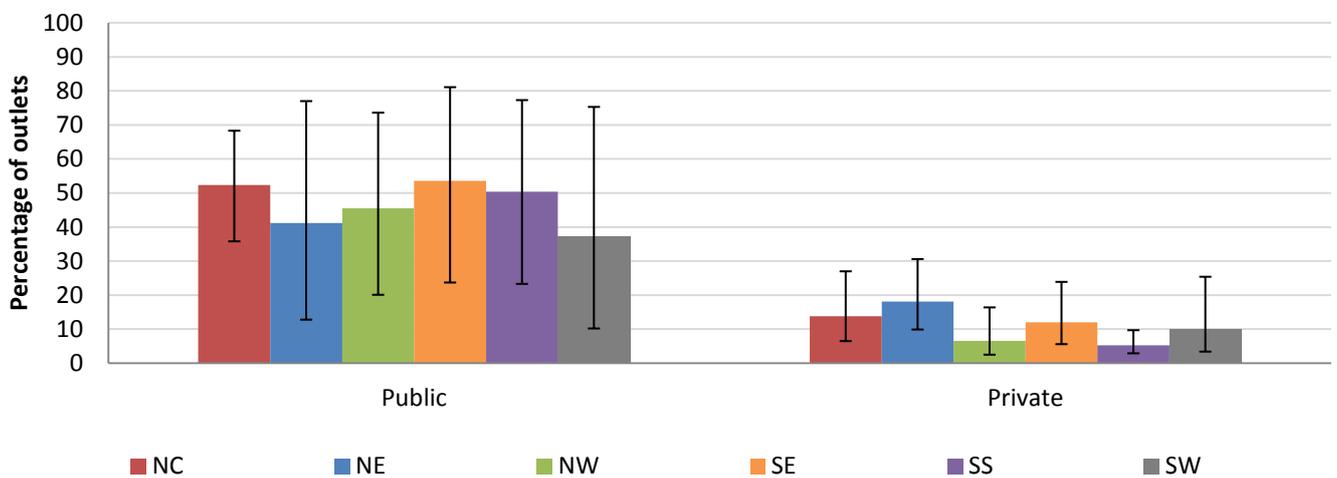
Figure 32. Percentage of antimalarial-stocking outlets with malaria blood testing available, 2009-2013
Among all outlets with at least one antimalarial in stock on the day of the survey or within the past three months, across survey round



Among antimalarial-stocking outlets, data trends suggest increasing availability of malaria blood testing (microscopy or RDT) among public and private health facilities over time. However in 2013, fewer than half of public facilities (46%), 49% of private not-for-profit facilities, and 62% of private for-profit facilities provided malaria blood testing (46%). Blood testing availability remained very low among drug stores (2013, 7%).

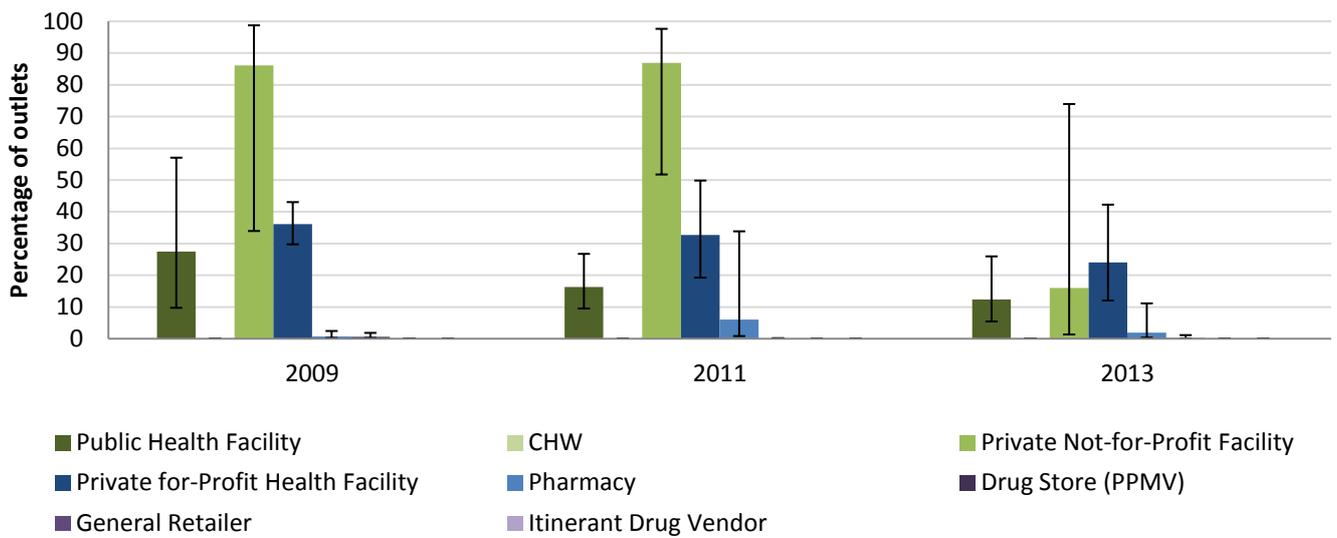
Figure 33. Percentage of antimalarial-stocking outlets with malaria blood testing available, 2013
Geopolitical zone

Among all outlets with at least one antimalarial in stock on the day of the survey or within the past three months, across geopolitical zone, 2013



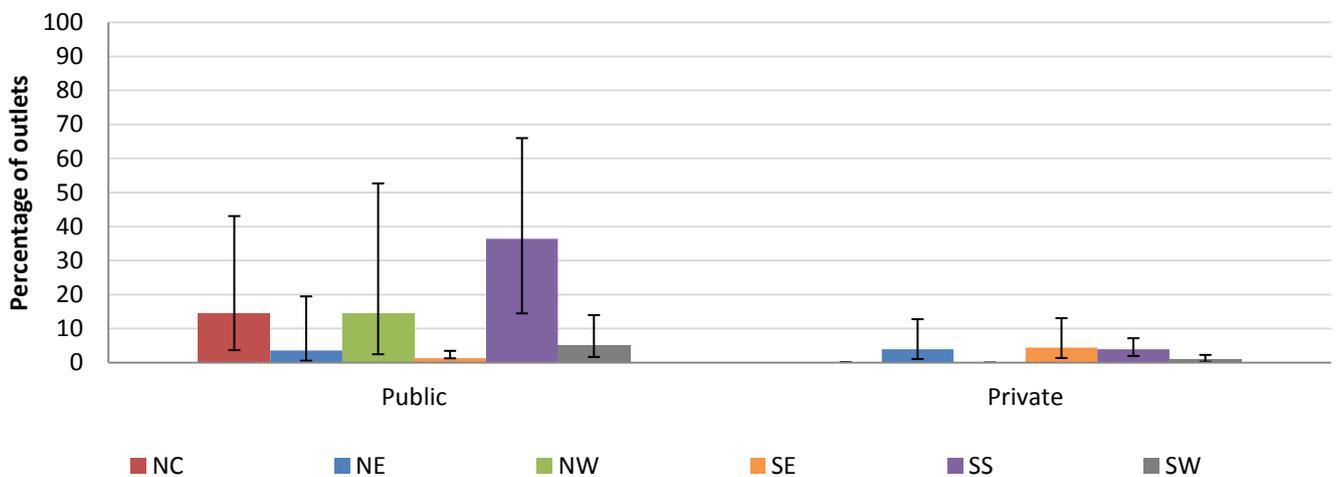
Malaria blood testing availability was similar across zones among antimalarial-stocking public and private sector outlets.

Figure 34. Percentage of antimalarial-stocking outlets with malaria microscopy available, 2009-2013
Among all outlets with at least one antimalarial in stock on the day of the survey or within the past three months, across survey round



Trends in the data suggest declining availability of malaria microscopy over time and in 2013, availability was low among facilities including public health facilities (12%) and private not-for-profit (16%) and for-profit facilities (24%).

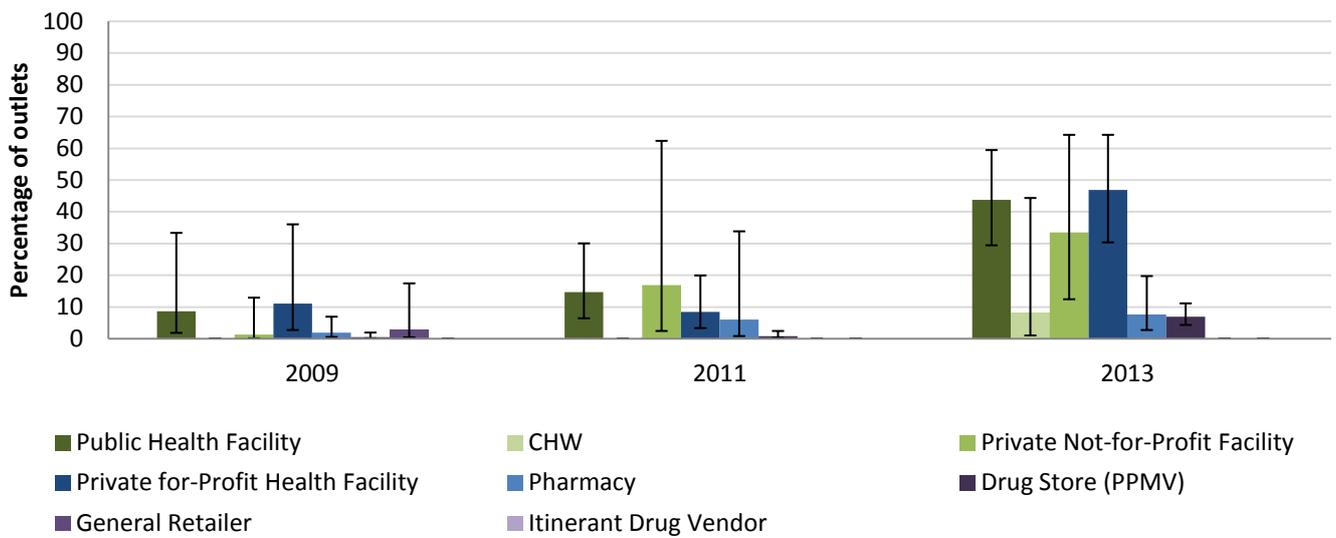
Figure 35. Percentage of antimalarial-stocking outlets with malaria microscopy available, 2013 geopolitical zone
Among all outlets with at least one antimalarial in stock on the day of the survey or within the past three months, across geopolitical zone, 2013



Availability of malaria microscopy was higher among antimalarial public sector outlets in SS (36%) as compared with other zones including NE (4%), SW (1%), and SW (5%).

Figure 36. Percentage of antimalarial-stocking outlets with malaria RDTs, 2009-2013

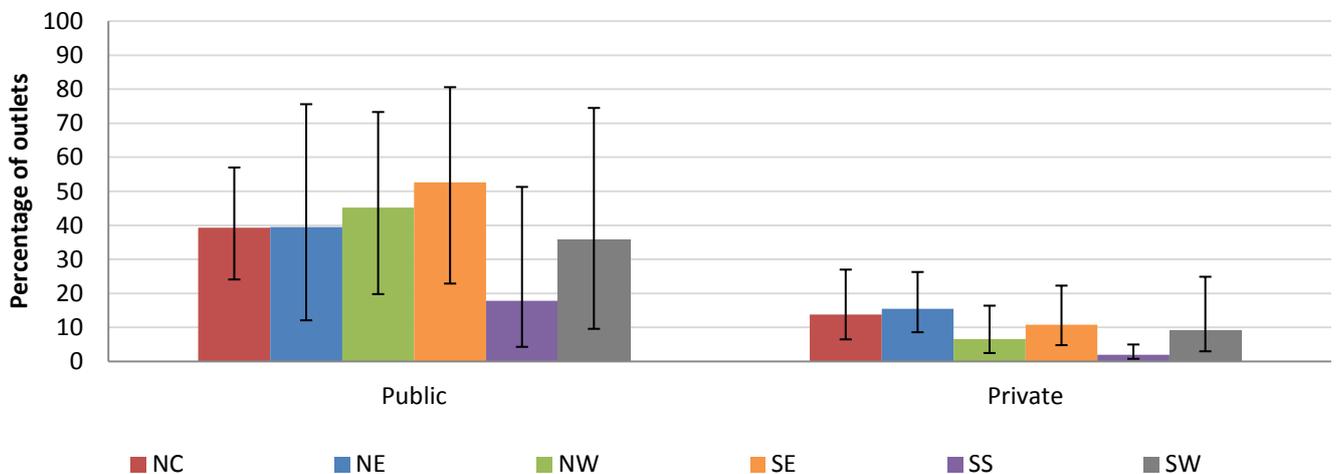
Among all outlets with at least one antimalarial in stock on the day of the survey or within the past three months, across survey round



Data trends suggest improved availability of malaria RDTs across all outlet types over time. However in 2013, fewer than half of all public health facilities, private not-for-profit facilities, and private for-profit facilities had malaria RDTs available. RDT availability was very low among drug stores (7%).

Figure 37. Percentage of antimalarial-stocking outlets with malaria RDTs, 2013 geopolitical zone

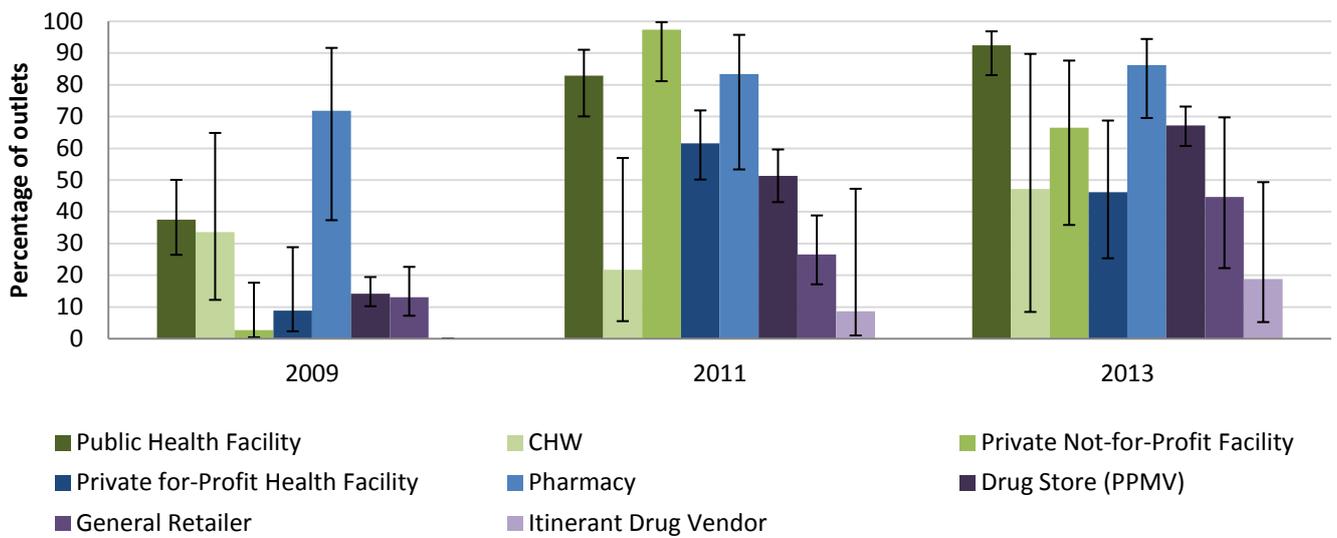
Among all outlets with at least one antimalarial in stock on the day of the survey or within the past three months, across geopolitical zone, 2013



Trends in the data suggest lower RDT availability among both public and private sector outlets in SS as compared with other zones.

Figure 38. Percentage of providers who correctly state the first-line treatment for uncomplicated malaria, 2009-2013

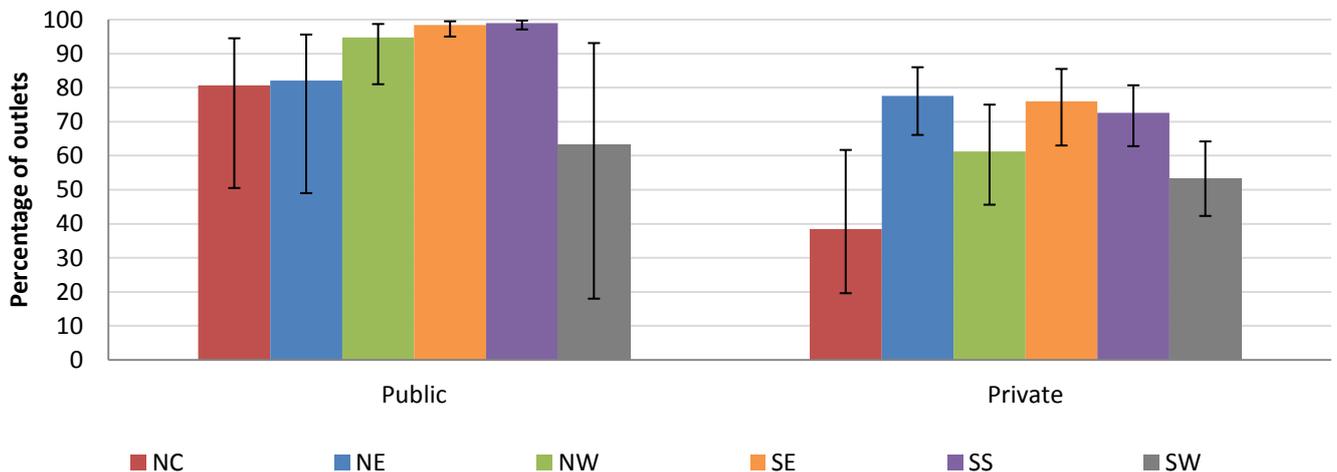
Among providers in outlets providing antimalarials or malaria blood testing, across survey round



Correct knowledge of the national first-line treatment for uncomplicated malaria (AL or ASAQ) has improved over time among providers in public and private sector outlets. For example, the percentage of providers in public health facilities who correctly stated the first-line treatment was 38% in 2009 as compared with 92% in 2013. Knowledge among private sector providers increased over time, including drug store (PPMV) provider knowledge from 14% in 2009 to 67% in 2013.

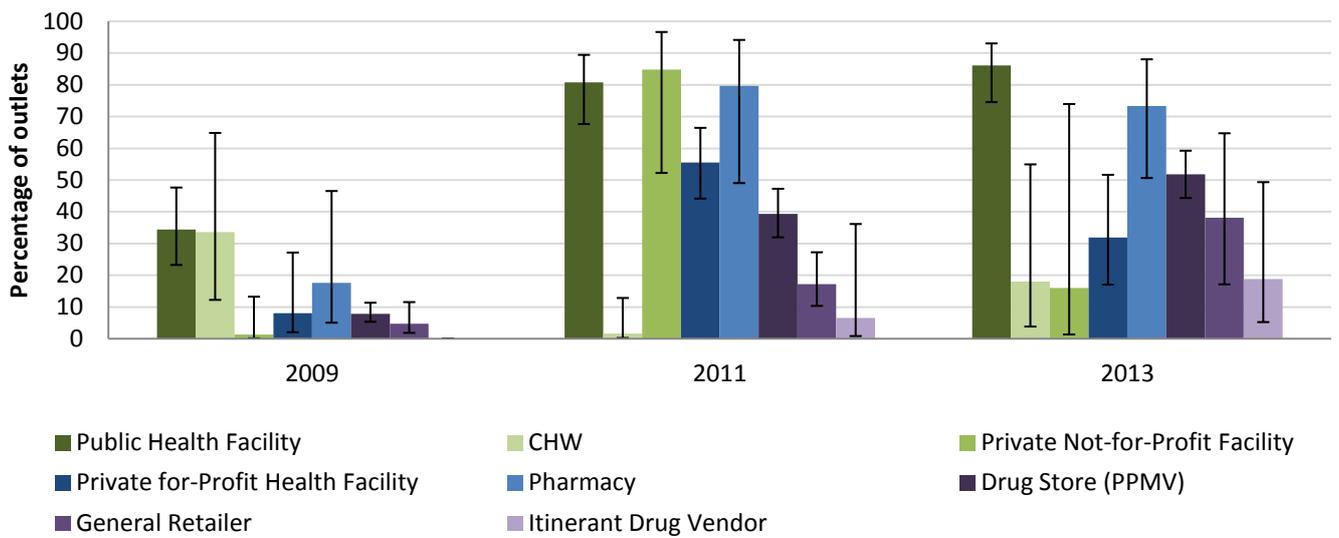
Figure 39. Percentage of providers who correctly state the first-line treatment for uncomplicated malaria, 2013 geopolitical zone

Among providers in outlets providing antimalarials or malaria blood testing, across geopolitical Zone, 2013



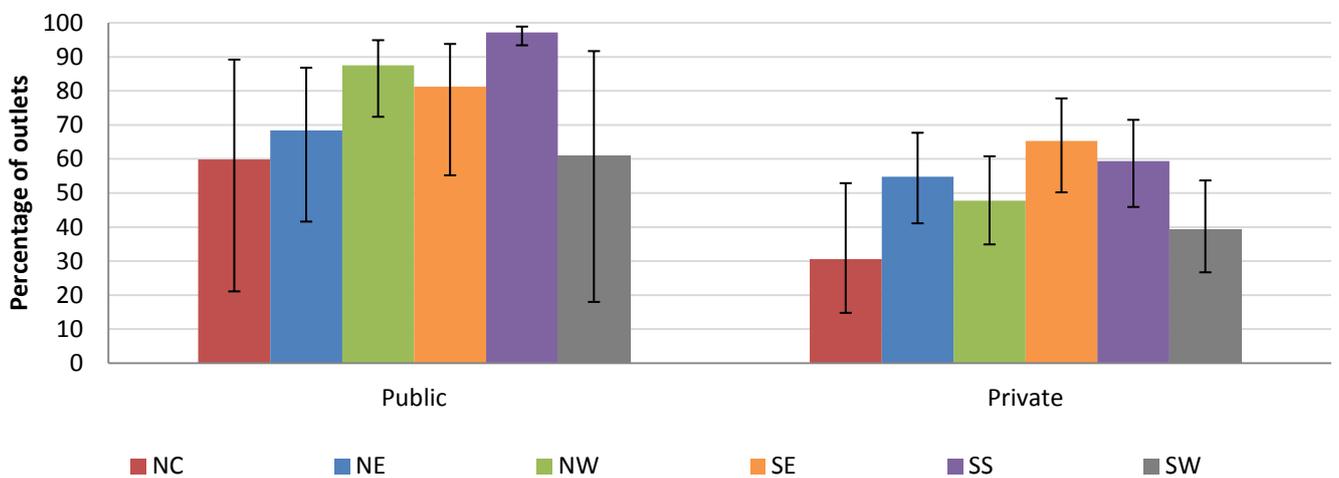
Public sector provider knowledge of the first-line treatment for uncomplicated malaria was highest among providers in SE (98%) and SS (99%) and relatively low in SW (63%). Among private sector providers, correct knowledge of the first-line treatment was lowest in NC (39%) and higher in NE (78%), SE (76%), and SS (73%).

Figure 40. Percentage of providers who correctly state the first-line dosing regimen for uncomplicated malaria for a two-year old child, 2009-2013
Among providers in outlets providing antimalarials or malaria blood testing, across survey round



Correct knowledge of the first-line treatment dosing regimen (AL or ASAQ) for uncomplicated malaria for a 2-year old child increased over time among providers in public and private sector outlet types. In 2013, knowledge was particularly high among providers in public health facilities (86%) and pharmacies (73%), and more than half of drug store (PPMV) providers could correctly state the dosing regimen.

Figure 41. Percentage of providers who correctly state the first-line dosing regimen for uncomplicated malaria for a two-year old child, 2013 geopolitical zone
Among providers in outlets providing antimalarials or malaria blood testing, across geopolitical zone, 2013



Public sector provider knowledge of the first-line treatment dosing regimen (AL or ASAQ) for uncomplicated malaria for a 2-year old child was highest in SS (97%) and lowest in NC (60%) and SW (61%). Among private sector providers, trends in the data suggest lower knowledge in NC (31%) and SW (39%) and higher knowledge in SE (65%) and SS (59%).

Results Section A: Core Indicators

Table A1: Availability of antimalarials, among all screened outlets, by outlet type											
	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	N=723	N=13	N=6	N=742	N=111	N=54	N=875	N=3,339	N=27	N=4,406	N=5,148
Any antimalarial at the time of survey visit	91.5 (79.0, 96.8)	43.5 (14.3, 78.1)	96.6 (74.3, 99.6)	84.5 (71.4, 92.3)	77.6 (63.0, 87.6)	93.7 (83.0, 97.8)	96.0 (92.7, 97.8)	2.3 (1.2, 4.1)	46.7 (21.3, 73.9)	21.0 (18.5, 23.6)	25.1 (22.4, 27.9)
Any ACT	77.8 (61.7, 88.4)	17.4 (5.6, 42.9)	64.3 (37.6, 84.3)	67.8 (51.2, 80.9)	63.2 (41.3, 80.8)	93.3 (82.8, 97.6)	75.7 (67.7, 82.1)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	16.1 (14.1, 18.3)	19.4 (17.1, 21.9)
Artemether Lumefantrine (AL)	76.2 (59.9, 87.3)	17.4 (5.6, 42.9)	64.3 (37.6, 84.3)	66.6 (50.0, 79.8)	61.2 (39.6, 79.1)	93.3 (82.8, 97.6)	74.5 (66.8, 80.9)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	15.8 (13.9, 18.0)	19.1 (16.8, 21.6)
Artesunate Amodiaquine (ASAQ)	20.6 (12.3, 32.4)	0.0 -	48.8 (27.4, 70.7)	19.2 (11.8, 29.6)	14.5 (4.9, 35.7)	52.3 (27.6, 76.0)	14.1 (10.1, 19.3)	0.0 (0.0, 0.1)	0.0 -	3.0 (2.2, 4.1)	4.0 (3.1, 5.2)
Dihydroartemisinin Piperaquine (DHA PPQ)	1.2 (0.4, 3.3)	0.0 -	0.0 -	1.0 (0.3, 2.6)	5.0 (1.8, 12.7)	78.3 (60.9, 89.3)	16.7 (12.3, 22.3)	0.3 (0.1, 1.3)	0.0 -	3.5 (2.6, 4.8)	3.4 (2.5, 4.6)
Other ACT	0.0 (0.0, 0.1)	0.0 -	0.0 -	0.0 (0.0, 0.1)	0.9 (0.3, 2.9)	46.0 (24.8, 68.7)	0.5 (0.3, 1.0)	0.2 (0.0, 1.6)	0.0 -	0.4 (0.2, 1.0)	0.4 (0.2, 1.0)
Quality Assured ACT (QAACT)	76.6 (60.8, 87.4)	17.4 (5.6, 42.9)	48.8 (27.4, 70.7)	65.9 (49.7, 79.1)	59.3 (38.0, 77.6)	88.6 (75.6, 95.1)	73.4 (65.8, 79.8)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	15.6 (13.6, 17.7)	18.8 (16.6, 21.3)
QA AL	75.0 (59.0, 86.2)	17.4 (5.6, 42.9)	48.8 (27.4, 70.7)	64.6 (48.5, 78.0)	58.9 (37.6, 77.3)	86.8 (70.8, 94.7)	72.6 (65.2, 79.0)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	15.4 (13.5, 17.5)	18.6 (16.4, 21.0)
QA ASAQ	20.3 (12.0, 32.1)	0.0 -	48.8 (27.4, 70.7)	19.0 (11.7, 29.4)	13.6 (4.3, 35.4)	32.9 (13.4, 60.8)	9.6 (6.6, 14.0)	0.0 (0.0, 0.1)	0.0 -	2.1 (1.5, 3.0)	3.2 (2.4, 4.3)
QAACT – child (<5 years)	69.0 (53.1, 81.5)	9.6 (1.5, 43.0)	48.8 (27.4, 70.7)	58.8 (42.8, 73.1)	41.8 (25.7, 59.9)	83.0 (67.7, 91.9)	62.7 (56.1, 68.9)	1.2 (0.6, 2.5)	10.7 (3.1, 30.9)	13.3 (11.7, 15.0)	16.2 (14.4, 18.1)
QAACT - adult	54.4 (38.5, 69.4)	7.8 (1.5, 31.4)	32.3 (12.0, 62.7)	46.0 (32.1, 60.5)	21.3 (9.6, 40.7)	57.1 (33.2, 78.1)	47.4 (41.4, 53.4)	0.6 (0.2, 1.4)	3.4 (0.6, 17.3)	9.5 (8.2, 11.0)	11.8 (10.1, 13.7)
QAACT with the “green leaf” logo	56.4 (40.5, 71.0)	9.6 (1.5, 43.0)	48.8 (27.4, 70.7)	48.8 (34.7, 63.2)	54.6 (33.6, 74.1)	85.0 (65.4, 94.5)	67.7 (60.8, 74.0)	1.3 (0.6, 2.6)	10.7 (3.1, 30.9)	14.4 (12.6, 16.6)	16.7 (14.6, 19.0)
Non-quality-assured ACT (non-QA ACT)	13.8 (6.7, 26.2)	7.8 (1.5, 31.4)	15.4 (1.4, 70.7)	13.0 (6.9, 23.3)	13.3 (6.8, 24.2)	87.5 (71.8, 95.0)	35.5 (27.8, 44.1)	0.4 (0.1, 1.2)	0.0 -	7.1 (5.6, 9.0)	7.5 (6.0, 9.4)
Non-QA AL	13.3 (6.3, 25.8)	7.8 (1.5, 31.4)	15.4 (1.4, 70.7)	12.6 (6.5, 22.9)	10.7 (5.3, 20.6)	86.4 (70.7, 94.3)	28.7 (21.8, 36.8)	0.4 (0.1, 1.2)	0.0 -	5.9 (4.5, 7.5)	6.3 (4.9, 8.0)
Non-QA ASAQ	0.5 (0.2, 1.0)	0.0 -	0.0 -	0.4 (0.2, 0.8)	0.9 (0.2, 3.1)	28.6 (13.5, 50.7)	5.9 (3.9, 8.8)	0.0 -	0.0 -	1.2 (0.8, 1.7)	1.1 (0.7, 1.7)

Table A1: Availability of antimalarials, among all screened outlets, by outlet type

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	N=723	N=13	N=6	N=742	N=111	N=54	N=875	N=3,339	N=27	N=4,406	N=5,148
Nationally Registered ACT	77.8 (61.7, 88.4)	17.4 (5.6, 42.9)	48.8 (27.4, 70.7)	66.9 (50.4, 80.0)	62.7 (40.9, 80.3)	93.3 (82.8, 97.6)	74.9 (67.1, 81.4)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	15.9 (14.0, 18.1)	19.2 (17.0, 21.7)
First-line ACT ^ψ	77.8 (61.7, 88.4)	17.4 (5.6, 42.9)	64.3 (37.6, 84.3)	67.8 (51.2, 80.9)	61.7 (40.0, 79.5)	93.3 (82.8, 97.6)	75.2 (67.3, 81.7)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	16.0 (13.9, 18.2)	19.3 (17.0, 21.8)
Any non-artemisinin therapy	51.8 (35.7, 67.4)	43.5 (14.3, 78.1)	80.1 (26.9, 97.8)	52.3 (39.0, 65.3)	63.0 (45.5, 77.7)	91.9 (81.0, 96.8)	94.3 (90.8, 96.5)	2.2 (1.2, 4.0)	39.9 (14.4, 72.3)	20.2 (17.8, 22.9)	22.3 (19.6, 25.2)
Chloroquine	22.9 (12.9, 37.4)	43.5 (14.3, 78.1)	32.3 (12.0, 62.7)	26.6 (17.3, 38.6)	50.3 (31.9, 68.6)	86.0 (70.1, 94.2)	87.8 (83.8, 91.0)	1.8 (0.9, 3.6)	31.0 (8.7, 67.9)	18.5 (16.4, 20.7)	19.0 (17.0, 21.2)
Sulfadoxine-Pyrimethamine	42.7 (28.1, 58.8)	35.8 (7.4, 79.6)	32.3 (12.0, 62.7)	41.0 (28.7, 54.6)	23.7 (11.2, 43.3)	81.7 (65.1, 91.5)	73.6 (67.9, 78.7)	1.2 (0.6, 2.2)	8.9 (3.1, 22.8)	14.7 (12.8, 16.9)	16.4 (14.2, 18.9)
Oral Quinine	2.8 (1.2, 6.5)	1.3 (0.2, 10.3)	0.0 -	2.4 (1.1, 5.3)	6.0 (2.3, 14.9)	50.1 (26.1, 74.0)	14.2 (9.9, 20.1)	0.2 (0.0, 1.5)	0.0 -	3.0 (2.2, 4.0)	2.9 (2.2, 4.0)
Quinine IV/IM	2.7 (1.3, 5.7)	0.0 -	15.4 (1.4, 70.7)	3.1 (1.4, 6.9)	20.1 (9.6, 37.3)	24.1 (6.7, 58.4)	3.5 (1.5, 8.2)	0.0 -	0.0 -	1.1 (0.6, 1.9)	1.2 (0.8, 2.0)
Amodiaquine	0.3 (0.1, 0.9)	0.0 -	0.0 -	0.2 (0.1, 0.7)	8.8 (2.2, 29.2)	26.0 (13.3, 44.8)	6.8 (4.3, 10.6)	0.2 (0.0, 1.5)	0.0 -	1.7 (1.0, 2.7)	1.6 (1.0, 2.5)
Any artemisinin monotherapy	37.4 (23.7, 53.6)	4.2 (0.5, 25.8)	0.0 -	30.0 (19.4, 43.4)	46.5 (30.4, 63.4)	85.7 (69.3, 94.1)	38.1 (31.1, 45.8)	0.5 (0.2, 1.5)	0.0 -	8.4 (6.9, 10.1)	9.8 (8.2, 11.6)
Oral artemisinin monotherapy	2.7 (1.1, 6.3)	0.0 -	0.0 -	2.1 (0.9, 5.0)	7.9 (3.7, 15.8)	78.7 (62.2, 89.3)	24.5 (19.3, 30.5)	0.5 (0.2, 1.5)	0.0 -	5.1 (4.0, 6.6)	5.0 (3.9, 6.3)
Non-oral artemisinin monotherapy	36.3 (22.6, 52.6)	4.2 (0.5, 25.8)	0.0 -	29.2 (18.6, 42.7)	42.2 (26.0, 60.2)	67.4 (44.8, 84.1)	18.2 (13.0, 24.9)	0.0 -	0.0 -	4.3 (3.2, 5.7)	5.9 (4.6, 7.4)
Artemether IV/IM	34.6 (21.1, 51.1)	4.2 (0.5, 25.8)	0.0 -	27.8 (17.4, 41.5)	39.6 (23.8, 57.9)	62.0 (38.7, 80.8)	18.2 (13.0, 24.9)	0.0 -	0.0 -	4.2 (3.2, 5.6)	5.7 (4.5, 7.3)
Artesunate IV/IM	2.3 (0.9, 5.7)	0.0 -	0.0 -	1.8 (0.7, 4.5)	1.6 (0.4, 6.6)	3.5 (1.2, 10.3)	0.5 (0.1, 2.4)	0.0 -	0.0 -	0.1 (0.0, 0.4)	0.2 (0.1, 0.6)
Any treatment for severe malaria	36.7 (23.0, 52.9)	4.2 (0.5, 25.8)	15.4 (1.4, 70.7)	30.4 (19.7, 43.8)	44.0 (27.6, 61.9)	67.4 (44.8, 84.1)	19.7 (14.3, 26.6)	0.0 -	0.0 -	4.6 (3.5, 6.0)	6.3 (5.0, 7.8)

* The denominator includes 51 outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview).

^ψ At the time of the 2013 Nigeria ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were both first-line treatments for uncomplicated malaria.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	N=659	N=5	N=4	N=668	N=76	N=50	N=837	N=71	N=12	N=1,046	N=1,714
Any ACT	85.1 (67.5, 94.0)	40.0 (5.5, 88.4)	66.5 (35.8, 87.6)	80.3 (57.6, 92.4)	81.5 (59.0, 93.1)	99.6 (96.9, 99.9)	78.8 (70.2, 85.5)	58.8 (36.5, 78.0)	22.9 (4.9, 63.2)	76.7 (69.9, 82.3)	77.5 (71.0, 82.9)
Artemether Lumefantrine (AL)	83.3 (65.6, 92.9)	40.0 (5.5, 88.4)	66.5 (35.8, 87.6)	78.8 (56.6, 91.3)	78.9 (56.9, 91.3)	99.6 (96.9, 99.9)	77.6 (69.2, 84.3)	58.8 (36.5, 78.0)	22.9 (4.9, 63.2)	75.6 (69.0, 81.1)	76.2 (69.8, 81.7)
Artesunate Amodiaquine (ASAQ)	22.5 (13.4, 35.2)	0.0 -	50.6 (27.8, 73.1)	22.7 (14.0, 34.7)	18.7 (6.3, 43.8)	55.9 (28.5, 80.1)	14.6 (10.5, 20.1)	1.5 (0.4, 5.7)	0.0 -	14.2 (10.5, 18.8)	16.0 (12.6, 20.1)
Dihydroartemisinin Piperaquine (DHA PPQ)	1.3 (0.5, 3.6)	0.0 -	0.0 -	1.1 (0.4, 3.1)	6.4 (2.4, 16.2)	83.6 (65.0, 93.3)	17.4 (12.8, 23.3)	13.3 (2.9, 44.2)	0.0 -	16.9 (12.5, 22.4)	13.5 (10.0, 17.9)
Other ACT	0.0 (0.0, 0.1)	0.0 -	0.0 -	0.0 (0.0, 0.1)	1.1 (0.3, 3.8)	49.1 (26.3, 72.2)	0.6 (0.3, 1.1)	10.1 (1.4, 47.2)	0.0 -	2.1 (0.8, 5.0)	1.6 (0.7, 3.9)
Quality Assured ACT (QAACT)	83.7 (66.8, 92.9)	40.0 (5.5, 88.4)	50.6 (27.8, 73.1)	78.0 (56.6, 90.6)	76.4 (54.9, 89.6)	94.6 (85.5, 98.1)	76.5 (68.3, 83.0)	58.6 (36.3, 77.8)	22.9 (4.9, 63.2)	74.3 (68.0, 79.7)	75.1 (69.0, 80.4)
QA AL	82.0 (64.8, 91.9)	40.0 (5.5, 88.4)	50.6 (27.8, 73.1)	76.5 (55.4, 89.5)	75.9 (54.5, 89.2)	92.7 (79.5, 97.6)	75.7 (67.7, 82.2)	58.6 (36.3, 77.8)	22.9 (4.9, 63.2)	73.6 (67.4, 79.0)	74.2 (68.1, 79.6)
QA ASAQ	22.2 (13.1, 34.9)	0.0 -	50.6 (27.8, 73.1)	22.5 (13.8, 34.5)	17.6 (5.6, 43.3)	35.1 (14.2, 63.8)	10.1 (6.8, 14.6)	1.3 (0.3, 5.8)	0.0 -	10.0 (7.1, 14.0)	12.7 (9.8, 16.5)
QAACT – child (<5 years)	75.5 (58.6, 87.0)	22.1 (2.6, 75.0)	50.6 (27.8, 73.1)	69.5 (50.4, 83.7)	53.9 (35.9, 70.9)	88.6 (76.5, 94.8)	65.3 (58.4, 71.7)	55.1 (33.9, 74.6)	22.9 (4.9, 63.2)	63.3 (57.4, 68.7)	64.6 (59.3, 69.6)
QAACT - adult	59.5 (42.2, 74.7)	17.8 (1.6, 74.3)	33.5 (12.4, 64.2)	54.4 (37.5, 70.3)	27.4 (12.3, 50.4)	61.0 (35.1, 81.8)	49.3 (43.0, 55.7)	26.0 (10.4, 51.4)	7.4 (1.3, 33.0)	45.2 (39.7, 50.8)	47.2 (41.9, 52.5)
QAACT with the “green leaf” logo	61.6 (44.5, 76.3)	22.1 (2.6, 75.0)	50.6 (27.8, 73.1)	57.8 (40.8, 73.1)	70.4 (47.9, 86.0)	90.8 (72.4, 97.4)	70.6 (63.1, 77.0)	56.9 (35.0, 76.4)	22.9 (4.9, 63.2)	68.9 (62.4, 74.8)	66.5 (59.8, 72.5)
Non-quality-assured ACT (non-QA ACT)	15.1 (7.3, 28.6)	17.8 (1.6, 74.3)	16.0 (1.3, 73.9)	15.4 (7.8, 28.0)	17.1 (8.6, 31.2)	93.3 (74.9, 98.5)	37.0 (28.8, 46.0)	18.1 (5.6, 45.0)	0.0 -	34.1 (27.0, 41.9)	30.0 (23.7, 37.2)
Non-QA AL	14.5 (6.9, 28.1)	17.8 (1.6, 74.3)	16.0 (1.3, 73.9)	14.9 (7.5, 27.5)	13.8 (6.6, 26.6)	92.2 (74.6, 97.9)	29.9 (22.6, 38.4)	16.7 (4.8, 44.5)	0.0 -	28.0 (21.7, 35.2)	25.1 (19.4, 31.9)
Non-QA ASAQ	0.5 (0.2, 1.1)	0.0 -	0.0 -	0.4 (0.2, 0.9)	1.1 (0.3, 4.1)	30.6 (13.8, 54.7)	6.2 (4.1, 9.2)	0.2 (0.0, 1.6)	0.0 -	5.5 (3.7, 8.1)	4.4 (3.0, 6.5)
Nationally Registered ACT	85.1 (67.5, 94.0)	40.0 (5.5, 88.4)	50.6 (27.8, 73.1)	79.1 (57.1, 91.5)	80.7 (58.5, 92.6)	99.6 (96.9, 99.9)	78.1 (69.7, 84.6)	58.8 (36.5, 78.0)	22.9 (4.9, 63.2)	76.0 (69.5, 81.5)	76.7 (70.4, 82.0)
First-line ACT ^ψ	85.1 (67.5, 94.0)	40.0 (5.5, 88.4)	66.5 (35.8, 87.6)	80.2 (57.6, 92.4)	79.5 (57.3, 91.8)	99.6 (96.9, 99.9)	78.3 (69.7, 85.0)	58.8 (36.5, 78.0)	22.9 (4.9, 63.2)	76.1 (69.4, 81.8)	77.0 (70.6, 82.4)

Table A2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	N=659	N=5	N=4	N=668	N=76	N=50	N=837	N=71	N=12	N=1,046	N=1,714
Any non-artemisinin therapy	56.6 (39.1, 72.6)	0.0 -	82.9 (24.3, 98.7)	61.8 (46.5, 75.2)	81.2 (60.0, 92.6)	98.0 (92.0, 99.5)	98.2 (96.3, 99.2)	95.8 (81.3, 99.2)	85.4 (35.0, 98.5)	96.5 (93.7, 98.1)	89.0 (83.8, 92.7)
Chloroquine	25.1 (14.2, 40.4)	0.0 -	33.5 (12.4, 64.2)	31.5 (20.6, 45.0)	64.8 (41.6, 82.6)	91.8 (79.4, 97.0)	91.5 (88.2, 93.9)	79.8 (55.6, 92.6)	66.5 (26.5, 91.6)	88.1 (84.7, 90.9)	75.8 (70.8, 80.2)
Sulfadoxine-Pyrimethamine	46.7 (30.8, 63.3)	82.2 (25.7, 98.4)	33.5 (12.4, 64.2)	48.5 (35.0, 62.3)	30.6 (14.4, 53.7)	87.2 (71.7, 94.8)	76.7 (70.7, 81.8)	51.0 (29.2, 72.4)	19.0 (5.2, 50.1)	70.3 (64.5, 75.4)	65.5 (59.6, 71.1)
Oral Quinine	3.1 (1.3, 7.2)	3.0 (0.3, 25.4)	0.0 -	2.9 (1.3, 6.3)	7.8 (2.9, 19.2)	53.4 (28.3, 76.9)	14.8 (10.3, 20.9)	10.6 (1.6, 46.4)	0.0 -	14.2 (10.2, 19.6)	11.8 (8.4, 16.2)
Quinine IV/IM	3.0 (1.4, 6.2)	0.0 -	16.0 (1.3, 73.9)	3.7 (1.6, 8.2)	25.9 (13.2, 44.7)	25.7 (7.2, 60.7)	3.7 (1.5, 8.5)	0.0 -	0.0 -	5.3 (3.1, 8.9)	4.9 (3.0, 7.9)
Amodiaquine	0.3 (0.1, 1.0)	0.0 -	0.0 -	0.3 (0.1, 0.8)	11.4 (3.0, 34.5)	27.8 (13.7, 48.3)	7.1 (4.5, 11.0)	10.9 (1.8, 45.8)	0.0 -	7.9 (4.9, 12.6)	6.3 (3.9, 9.8)
Any artemisinin monotherapy	40.9 (26.1, 57.6)	9.6 (1.1, 50.0)	0.0 -	35.5 (23.4, 49.9)	59.9 (42.4, 75.2)	91.4 (75.0, 97.4)	39.7 (32.3, 47.6)	23.4 (10.1, 45.3)	0.0 -	39.9 (33.6, 46.6)	39.0 (33.1, 45.2)
Oral artemisinin monotherapy	3.0 (1.2, 6.9)	0.0 -	0.0 -	2.5 (1.0, 5.9)	10.1 (4.7, 20.5)	84.0 (67.3, 93.1)	25.5 (20.1, 31.8)	23.4 (10.1, 45.3)	0.0 -	24.6 (19.6, 30.3)	19.8 (15.8, 24.4)
Non-oral artemisinin monotherapy	39.7 (25.0, 56.6)	9.6 (1.1, 50.0)	0.0 -	34.5 (22.4, 49.0)	54.3 (36.3, 71.3)	72.0 (49.7, 87.0)	19.0 (13.6, 25.9)	0.0 -	0.0 -	20.4 (15.4, 26.7)	23.5 (18.5, 29.4)
Artemether IV/IM	37.8 (23.3, 55.0)	9.6 (1.1, 50.0)	0.0 -	32.9 (21.0, 47.6)	51.0 (33.2, 68.5)	66.2 (42.8, 83.6)	19.0 (13.6, 25.9)	0.0 -	0.0 -	20.1 (15.1, 26.3)	22.9 (17.9, 28.7)
Artesunate IV/IM	2.5 (1.0, 6.2)	0.0 -	0.0 -	2.1 (0.8, 5.4)	2.1 (0.5, 8.4)	3.8 (1.2, 11.0)	0.6 (0.1, 2.5)	0.0 -	0.0 -	0.7 (0.2, 2.0)	1.0 (0.4, 2.2)
Any treatment for severe malaria	40.1 (25.3, 56.9)	9.6 (1.1, 50.0)	16.0 (1.3, 73.9)	36.0 (23.8, 50.3)	56.7 (38.2, 73.5)	72.0 (49.7, 87.0)	20.6 (14.9, 27.7)	0.0 -	0.0 -	21.9 (16.7, 28.2)	25.0 (19.9, 30.8)

* Antimalarial-stocking outlets have at least one antimalarial in stock on the day of the survey, verified by presence of at least one antimalarial recorded in the antimalarial audit sheet. The denominator includes 12 outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview).

† At the time of the 2013 Nigeria ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were both first-line treatments for uncomplicated malaria.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A3: Antimalarial market composition

Outlet type, among outlets with at least 1 antimalarial in stock on the day of the survey: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
	%	%	%	%	%	%	%	%	%	%
N=1,714 outlets	16.8 (12.4, 22.4)	1.7 (0.5, 6.0)	1.6 (0.4, 5.9)	20.1 (14.8, 26.7)	6.0 (3.9, 9.2)	1.1 (0.6, 2.0)	64.7 (57.4, 71.4)	6.8 (3.8, 12.0)	1.3 (0.4, 3.6)	79.9 (73.3, 85.2)

* Excluding booster sample outlets. Outlets with at least one antimalarial in stock on the day of the survey, verified by presence of at least one antimalarial recorded in the antimalarial audit sheet.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A4a: Price of tablet and oral liquid formulation antimalarials, by outlet type

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Any ACT	\$0.00 [0.00-0.00] ^(2,361)	\$0.00 [0.00-1.00] ⁽⁶⁾	\$1.25 [0.94-2.19] ⁽⁷⁾	\$0.00 [0.00-0.00] ⁽²³⁷⁴⁾	\$2.50 [1.56-3.75] ⁽¹⁰⁵⁾	\$3.12 [1.87-4.50] ⁽⁵⁵²⁾	\$2.08 [1.37-3.33] ^(2,787)	\$2.81 [1.87-5.31] ⁽¹⁸⁴⁾	\$1.25 [1.25-14.99] ⁽⁵⁾	\$2.19 [1.50-3.75] ^(3,633)
Artemether Lumefantrine	\$0.00 [0.00-0.00] ^(1,814)	\$0.00 [0.00-1.00] ⁽⁶⁾	\$1.25 [1.25-1.87] ⁽⁴⁾	\$0.00 [0.00-0.00] ⁽¹⁸²⁴⁾	\$2.50 [1.56-3.12] ⁽⁸³⁾	\$3.00 [1.87-4.50] ⁽³⁷³⁾	\$1.87 [1.25-3.12] ^(2,352)	\$2.50 [1.87-5.00] ⁽¹⁷¹⁾	\$1.25 [1.25-14.99] ⁽⁵⁾	\$2.08 [1.33-3.44] ^(2,984)
Artesunate Amodiaquine	\$0.00 [0.00-0.00] ⁽⁵¹⁷⁾	-	\$0.94 [0.94-7.50] ⁽³⁾	\$0.00 [0.00-0.00] ⁽⁵²⁰⁾	\$2.50 [2.50-7.50] ⁽¹⁸⁾	\$1.75 [1.25-3.75] ⁽⁷¹⁾	\$2.50 [1.81-4.37] ⁽¹⁹⁵⁾	\$1.12 [1.12-5.00] ⁽²⁾	-	\$2.50 [1.75-4.37] ⁽²⁸⁶⁾
Dihydroartemisinin Pipleraquine (DHA PPQ)	\$1.87 [0.00-3.16] ⁽²⁰⁾	-	-	\$1.87 [0.00-3.16] ⁽²⁰⁾	\$4.22 [4.22-4.22] ⁽³⁾	\$3.51 [2.81-4.39] ⁽⁷²⁾	\$2.50 [2.19-3.51] ⁽²¹⁹⁾	\$4.92 [4.92-4.92] ⁽¹⁰⁾	-	\$3.12 [2.19-4.22] ⁽³⁰⁴⁾
Quality assured ACT (QAACT)	\$0.00 [0.00-0.00] ⁽²¹⁹⁷⁾	\$0.00 [0.00-1.00] ⁽⁵⁾	\$1.25 [0.94-1.87] ⁽⁶⁾	\$0.00 [0.00-0.00] ⁽²²⁰⁸⁾	\$2.50 [1.56-2.50] ⁽⁷⁷⁾	\$1.87 [1.56-2.50] ⁽²¹⁷⁾	\$1.87 [1.25-2.50] ⁽²⁰⁸⁴⁾	\$2.50 [1.67-3.44] ⁽¹⁴⁸⁾	\$1.25 [1.25-14.99] ⁽⁵⁾	\$1.87 [1.25-2.50] ⁽²⁵³¹⁾
QA AL	\$0.00 [0.00-0.00] ^(1,697)	\$0.00 [0.00-1.00] ⁽⁵⁾	\$1.25 [1.25-1.87] ⁽³⁾	\$0.00 [0.00-0.00] ⁽¹⁷⁰⁵⁾	\$1.87 [1.25-2.50] ⁽⁶¹⁾	\$1.87 [1.56-2.50] ⁽¹⁷⁸⁾	\$1.87 [1.25-2.50] ^(1,925)	\$2.50 [1.67-3.44] ⁽¹⁴⁶⁾	\$1.25 [1.25-14.99] ⁽⁵⁾	\$1.87 [1.25-2.50] ^(2,315)
QA ASAQ	\$0.00 [0.00-0.00] ⁽⁵⁰⁰⁾	-	\$0.94 [0.94-7.50] ⁽³⁾	\$0.00 [0.00-0.00] ⁽⁵⁰³⁾	\$2.50 [2.50-7.50] ⁽¹⁶⁾	\$1.75 [1.25-2.50] ⁽³⁹⁾	\$2.50 [1.56-3.75] ⁽¹⁵⁹⁾	\$1.12 [1.12-5.00] ⁽²⁾	-	\$2.50 [1.56-3.75] ⁽²¹⁶⁾
QAACT with the "green leaf" logo	\$0.00 [0.00-0.00] ^(1,541)	\$1.25 [1.00-1.25] ⁽³⁾	\$1.25 [0.62-1.25] ⁽³⁾	\$0.00 [0.00-0.00] ⁽¹⁵⁴⁷⁾	\$2.50 [1.56-2.50] ⁽⁷⁰⁾	\$1.75 [1.56-2.50] ⁽¹⁷⁶⁾	\$1.87 [1.25-2.50] ^(1,817)	\$2.50 [1.67-3.33] ⁽¹³²⁾	\$1.25 [1.25-14.99] ⁽⁴⁾	\$1.87 [1.25-2.50] ^(2,199)
Non-quality assured ACT (non-QA ACT)	\$0.00 [0.00-0.00] ⁽¹⁶⁴⁾	\$0.00 ⁽¹⁾	\$2.19 ⁽¹⁾	\$0.00 [0.00-0.00] ⁽¹⁶⁶⁾	\$4.22 [3.75-4.68] ⁽²⁸⁾	\$3.75 [3.12-5.00] ⁽³³⁵⁾	\$3.75 [2.50-4.68] ⁽⁷⁰³⁾	\$5.31 [4.92-6.25] ⁽³⁶⁾	-	\$3.75 [2.50-5.00] ^(1,102)
Non-QA AL	\$0.00 [0.00-0.00] ⁽¹¹⁷⁾	\$0.00 ⁽¹⁾	\$2.19 ⁽¹⁾	\$0.00 [0.00-0.00] ⁽¹¹⁹⁾	\$4.37 [3.75-4.68] ⁽²²⁾	\$4.06 [3.12-5.00] ⁽¹⁹⁵⁾	\$4.37 [3.12-5.00] ⁽⁴²⁷⁾	\$5.31 [5.31-6.25] ⁽²⁵⁾	-	\$4.37 [3.12-5.00] ⁽⁶⁶⁹⁾
Non-QA ASAQ	\$0.00 [0.00-0.00] ⁽¹⁷⁾	-	-	\$0.00 [0.00-0.00] ⁽¹⁷⁾	\$0.47 [0.47-0.47] ⁽²⁾	\$3.12 [2.81-3.75] ⁽³²⁾	\$4.37 [2.81-6.25] ⁽³⁶⁾	-	-	\$3.75 [2.81-5.62] ⁽⁷⁰⁾
Chloroquine	\$0.24 [0.24-0.60] ⁽²⁸⁾	-	-	\$0.24 [0.24-0.60] ⁽²⁸⁾	\$0.78 [0.30-0.78] ⁽⁵⁾	\$0.30 [0.19-0.94] ⁽⁴⁶⁾	\$0.30 [0.15-0.60] ⁽³⁵⁸⁾	\$0.94 [0.36-1.25] ⁽²⁴⁾	\$0.76 [0.76-0.76] ⁽⁵⁾	\$0.30 [0.18-0.62] ⁽⁴³⁸⁾
Quinine	\$2.62 [0.00-5.25] ⁽²⁹⁾	-	-	\$2.62 [0.00-5.25] ⁽²⁹⁾	\$9.18 [3.75-13.12] ⁽⁵⁾	\$6.56 [3.12-6.56] ⁽¹⁷⁾	\$7.87 [3.12-7.87] ⁽⁴⁰⁾	-	-	\$7.87 [3.12-7.87] ⁽⁶²⁾
Sulfadoxine-Pyrimethamine (SP)	\$0.00 [0.00-0.12] ⁽⁴⁰⁹⁾	\$0.31 [0.31-0.31] ⁽⁴⁾	\$0.62 ⁽¹⁾	\$0.00 [0.00-0.31] ⁽⁴¹⁴⁾	\$0.62 [0.50-1.56] ⁽³¹⁾	\$0.62 [0.44-0.94] ⁽¹⁸⁵⁾	\$0.62 [0.44-0.75] ^(1,955)	\$0.62 [0.44-1.25] ⁽¹³¹⁾	\$0.31 [0.31-0.62] ⁽⁵⁾	\$0.62 [0.44-0.87] ^(2,307)

Table A4a: Price of tablet and oral liquid formulation antimalarials, by outlet type

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Oral Artemisinin Monotherapy	\$3.00 [2.80-3.50] ⁽³²⁾	- -	- -	\$3.00 [2.80-3.50] ⁽³²⁾	\$3.50 [3.50-4.00] ⁽⁸⁾	\$3.10 [3.00-4.00] ⁽⁴⁵⁾	\$3.50 [3.00-3.50] ⁽³⁰⁵⁾	\$4.00 [3.50-4.00] ⁽¹⁹⁾	- -	\$3.50 [3.00-4.00] ⁽³⁷⁷⁾
Median price of an oral liquid AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Chloroquine syrup	\$0.78 [0.70-0.94] ⁽⁸⁹⁾	\$0.78 [0.29-0.78] ⁽⁴⁾	- -	\$0.78 [0.62-0.94] ⁽⁹³⁾	\$1.87 [1.66-2.65] ⁽²²⁾	\$1.56 [1.46-1.87] ⁽⁸²⁾	\$1.46 [1.07-1.87] ^(1,616)	\$1.56 [1.46-1.95] ⁽⁸⁴⁾	\$0.78 [0.78-0.78] ⁽²⁾	\$1.46 [1.09-1.87] ^(1,806)
Quinine syrup	\$7.11 [7.11-7.11] ⁽²³⁾	- -	- -	\$7.11 [7.11-7.11] ⁽²³⁾	\$6.50 [3.25-6.50] ⁽²⁾	\$7.31 [7.31-7.31] ⁽⁵⁾	\$5.69 [4.33-6.50] ⁽¹¹⁰⁾	\$14.63 [14.63-14.63] ⁽³⁾	- -	\$6.07 [4.88-7.31] ⁽¹²⁰⁾
SP suspension	\$2.72 [0.00-2.72] ⁽²⁸⁾	- -	- -	\$2.72 [0.00-2.72] ⁽²⁸⁾	\$4.68 [3.75-4.68] ⁽³⁾	\$0.94 [0.62-1.41] ⁽¹⁶⁾	\$0.94 [0.94-1.56] ⁽¹¹⁷⁾	\$0.94 [0.94-0.94] ⁽⁵⁾	- -	\$0.94 [0.94-1.41] ⁽¹⁴¹⁾
Artesunate suspension	\$20.61 [18.74-24.36] ⁽¹⁸⁾	- -	- -	\$20.61 [18.74-24.36] ⁽¹⁸⁾	\$22.49 [22.49-22.49] ⁽²⁾	\$20.99 [18.74-22.49] ⁽²⁹⁾	\$18.74 [16.87-22.49] ⁽¹²¹⁾	\$20.61 [6.75-20.61] ⁽⁹⁾	- -	\$18.74 [16.87-22.49] ⁽¹⁶¹⁾
AL suspension	\$8.12 [6.66-11.66] ⁽⁷⁵⁾	- -	- -	\$8.12 [6.66-11.66] ⁽⁷⁵⁾	\$10.62 [6.66-12.49] ⁽¹²⁾	\$8.83 [7.50-9.99] ⁽⁸²⁾	\$8.12 [6.66-9.99] ⁽²⁴⁶⁾	\$8.74 [8.74-8.74] ⁽¹¹⁾	- -	\$8.33 [6.66-9.99] ⁽³⁵¹⁾
DHA PPQ suspension	\$16.87 [13.24-16.87] ⁽¹⁴⁾	- -	- -	\$16.87 [13.24-16.87] ⁽¹⁴⁾	\$18.27 ⁽¹⁾	\$14.05 [8.78-15.46] ⁽³⁷⁾	\$14.05 [12.65-16.87] ⁽¹²⁰⁾	\$21.08 [21.08-21.08] ⁽⁶⁾	- -	\$15.46 [12.65-18.27] ⁽¹⁶⁴⁾

* AETD - adult equivalent treatment dose - is the number of milligrams required to treat a 60kg adult (see Annex 11). Information provided by the respondent about price for a specific amount of antimalarial drug (e.g. price per tablet or price per specific package size) was converted to the price per AETD.

Figures in this table are derived using audited products with price information. The numbers of antimalarials captured in audit sheets with missing price information are as follows:

113 any ACT tablet, 82 artemether lumefantrine tablet, 19 artesunate amodiaquine tablet, 9 dihydroartemisinin piperaquine tablet, 64 QAACT tablet, 52 artemether lumefantrine QAACT tablet, 12 artesunate amodiaquine QAACT tablet, 23 child QAACT tablet, 29 adult QAACT tablet, 58 QAACT with the 'green leaf' logo tablet, 49 non-quality assured ACT tablet, 30 artemether lumefantrine non-quality assured ACT tablet, 7 artesunate amodiaquine non-quality assured ACT tablet, 26 chloroquine tablet, 102 quinine tablet, 59 sulfadoxine pyrimethamine tablet, 20 oral artemisinin monotherapy tablet, 34 chloroquine syrup, 10 quinine syrup, 6 sulfadoxine pyrimethamine suspension, 7 artesunate suspension, 14 artemether lumefantrine suspension, 2 dihydroartemisinin piperaquine suspension

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A4b: Price of pre-packaged antimalarials, by outlet type

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of one pre-packaged therapy:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Pediatric QA AL *	\$0.00 [0.00-0.00] ⁽⁴⁸⁰⁾	\$0.31 [0.31-0.31] ⁽²⁾	\$0.31 ⁽¹⁾	\$0.00 [0.00-0.00] ⁽⁴⁸³⁾	\$0.44 [0.44-1.56] ⁽¹²⁾	\$0.62 [0.50-1.12] ⁽⁴⁸⁾	\$0.62 [0.50-0.94] ⁽⁵⁵³⁾	\$1.25 [0.62-2.81] ⁽⁴²⁾	\$0.31 [0.31-3.75] ⁽³⁾	\$0.75 [0.50-1.25] ⁽⁶⁵⁸⁾
Pediatric QA ASAQ *	\$0.00 [0.00-0.00] ⁽¹⁸⁰⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹⁸⁰⁾	\$0.62 ⁽¹⁾	\$0.44 [0.44-1.25] ⁽¹⁹⁾	\$0.81 [0.62-0.94] ⁽⁸⁴⁾	- -	- -	\$0.75 [0.62-0.94] ⁽¹⁰⁴⁾

* Pediatric country-specific QAACT is the pre-packaged regimen appropriate for a 10kg child (2 years of age).

Figures in this table are derived using audited products with price information. The numbers of antimalarials captured in audit sheets with missing price information are as follows:

10 artemether lumefantrine pediatric QAACT, 1 artesunate amodiaquine pediatric QAACT

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A5: Availability of malaria blood testing among antimalarial-stocking outlets*, by outlet type

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets** stocking	N=707	N=7	N=4	N=718	N=78	N=50	N=835	N=74	N=14	N=1,051	N=1,769
Any malaria blood testing	49.0 (33.9, 64.4)	8.4 (1.0, 44.3)	49.4 (26.9, 72.2)	45.6 (31.3, 60.7)	62.4 (44.5, 77.5)	7.6 (2.7, 19.7)	7.1 (4.4, 11.3)	0.0 -	0.0 -	10.6 (7.6, 14.6)	18.3 (14.5, 22.8)
	N=707	N=7	N=4	N=718	N=78	N=50	N=835	N=74	N=14	N=1,051	N=1,769
Microscopic blood tests	12.4 (5.4, 25.9)	0.0 -	16.0 (1.3, 73.9)	11.6 (5.3, 23.5)	24.0 (12.0, 42.2)	1.9 (0.3, 11.1)	0.2 (0.0, 1.1)	0.0 -	0.0 -	2.0 (1.2, 3.5)	4.1 (2.4, 6.9)
	N=707	N=7	N=4	N=718	N=78	N=50	N=834	N=74	N=14	N=1,050	N=1,768
Rapid diagnostic tests (RDTs)	43.8 (29.4, 59.4)	8.4 (1.0, 44.3)	33.5 (12.4, 64.2)	40.1 (26.7, 55.2)	46.9 (30.3, 64.2)	7.6 (2.7, 19.7)	6.9 (4.3, 11.1)	0.0 -	0.0 -	9.2 (6.4, 13.1)	16.0 (12.3, 20.6)

* Blood-testing availability is reported among outlets that either had antimalarials in stock on the day of the survey or reportedly stocked antimalarials in the previous 3 months.

** Results in this table are derived using responses captured among outlets with blood testing information. 15 antimalarial-stocking outlets were missing information about both availability of microscopy and availability of RDTs. 16 antimalarial-stocking outlets had partial information about blood testing availability and are included in the denominator of the indicator “any blood testing available.”

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A6: Price of malaria blood testing, by outlet type

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Total median price to consumers: *										
Microscopic blood										
Adult	\$0.62 [0.62-1.25] ⁽¹¹⁷⁾	- -	\$2.50 (1)	\$0.62 [0.62-1.25] ⁽¹¹⁸⁾	\$3.12 [1.25-3.12] ⁽⁴⁸⁾	\$3.75 (1)	\$1.87 [1.87-1.87] ⁽²⁾	- -	- -	\$3.12 [1.56-3.12] ⁽⁵¹⁾
Child under age five	\$0.62 [0.00-0.62] ⁽¹¹⁷⁾	- -	\$2.50 (1)	\$0.62 [0.00-0.75] ⁽¹¹⁸⁾	\$3.12 [1.25-3.12] ⁽⁴⁷⁾	\$3.75 (1)	\$1.87 (1)	- -	- -	\$3.12 [1.25-3.12] ⁽⁴⁹⁾
Rapid diagnostic										
Adult	\$0.00 [0.00-0.00] ⁽³⁶²⁾	\$0.00 (1)	\$1.25 (1)	\$0.00 [0.00-0.00] ⁽³⁶⁴⁾	\$1.87 [1.25-3.12] ⁽³⁸⁾	\$3.12 [3.12-3.75] ⁽⁶⁾	\$0.62 [0.62-1.25] ⁽³⁶⁾	- -	- -	\$1.25 [0.62-2.50] ⁽⁸⁰⁾
Child under five	\$0.00 [0.00-0.00] ⁽³⁶¹⁾	\$0.00 (1)	\$1.25 (1)	\$0.00 [0.00-0.00] ⁽³⁶³⁾	\$1.87 [1.25-2.50] ⁽³⁸⁾	\$3.12 [3.12-3.75] ⁽⁶⁾	\$0.62 [0.31-1.25] ⁽³⁴⁾	- -	- -	\$1.25 [0.62-1.87] ⁽⁷⁸⁾
Median price excluding fees: **	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Rapid diagnostic										
Adult	\$0.00 [0.00-0.00] ⁽³⁵⁹⁾	\$0.00 (1)	\$1.25 (1)	\$0.00 [0.00-0.00] ⁽³⁶¹⁾	\$1.25 [1.25-3.12] ⁽³³⁾	\$3.12 [1.87-3.75] ⁽⁶⁾	\$0.62 [0.00-0.94] ⁽³³⁾	- -	- -	\$0.94 [0.50-1.25] ⁽⁷²⁾
Child under five	\$0.00 [0.00-0.00] ⁽³⁵⁸⁾	\$0.00 (1)	\$1.25 (1)	\$0.00 [0.00-0.00] ⁽³⁶⁰⁾	\$1.25 [0.94-1.87] ⁽³³⁾	\$3.12 [1.87-3.75] ⁽⁶⁾	\$0.62 [0.00-0.94] ⁽³³⁾	- -	- -	\$0.94 [0.19-1.25] ⁽⁷²⁾

* Total price to the consumer including consultation and/or service fees.

** Price to the consumer for an RDT excluding consultation and/or service fees.

Microscopic blood testing price information was not available (missing or “don’t know” response) for: 15 adult RDTs, 16 child RDTs, 9 adult microscopy tests, 11 child microscopy tests

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A7: Antimalarial market share

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ANTI-MALARIAL TOTAL**
	%	%	%	%	%	%	%	%	%	%	%
1. Any ACT	8.0	0.3	0.5	8.7	1.5	2.3	22.4	3.6	0.0	29.7	38.4
Artemether Lumefantrine	7.2	0.3	0.3	7.8	1.4	1.9	20.5	3.1	0.0	27.0	34.8
Artesunate Amodiaquine	0.6	0.0	0.2	0.8	0.1	0.1	0.7	0.0	0.0	0.9	1.7
Dihydroartemisinin Piperazine	0.2	0.0	0.0	0.2	0.1	0.2	1.1	0.4	0.0	1.7	1.9
Other ACT	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1
Quality Assured ACT (QAACT)	7.7	0.2	0.2	8.1	1.2	0.8	18.6	2.2	0.0	22.9	30.9
Artemether Lumefantrine QAACT	7.0	0.2	0.1	7.3	1.2	0.7	18.0	2.2	0.0	22.2	29.5
Artesunate Amodiaquine QAACT	0.6	0.0	0.2	0.8	0.1	0.0	0.6	0.0	0.0	0.7	1.5
QAACT with the "green leaf" logo	4.0	0.0	0.0	4.0	1.2	0.7	14.9	2.1	0.0	18.9	22.9
Non-quality-assured ACT	0.4	0.1	0.2	0.7	0.3	1.5	3.7	1.3	0.0	6.8	7.5
Artemether Lumefantrine non-quality-assured ACT	0.2	0.1	0.2	0.5	0.2	1.1	2.5	0.9	0.0	4.8	5.3
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2
Nationally Registered ACT	7.9	0.3	0.2	8.3	1.5	2.1	21.9	3.2	0.0	28.7	37.0
First-line ACT [†]	7.8	0.3	0.5	8.6	1.5	2.0	21.3	3.1	0.0	27.9	36.4
2. Any non-artemisinin therapy	4.3	0.6	0.2	5.1	1.3	2.3	45.4	3.6	0.1	52.8	57.9
Chloroquine	1.0	0.1	0.0	1.1	0.6	0.9	18.7	0.8	0.1	21.2	22.3
Sulfadoxine-Pyrimethamine	3.3	0.4	0.1	3.9	0.6	1.4	26.2	2.7	0.0	30.9	34.8
Oral Quinine	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.3
Quinine IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Amodiaquine	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.2
3. Oral artemisinin monotherapy	0.0	0.0	0.0	0.0	0.0	0.1	1.6	0.3	0.0	2.0	2.0
4. Non-oral artemisinin monotherapy	0.4	0.0	0.0	0.4	0.1	0.0	1.1	0.0	0.0	1.2	1.6
Artemether IV/IM	0.4	0.0	0.0	0.4	0.1	0.0	1.0	0.0	0.0	1.2	1.6
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.4	0.0	0.0	0.4	0.2	0.0	1.1	0.0	0.0	1.3	1.7
OUTLET TYPE TOTAL***	12.8	0.8	0.6	14.3	3.0	4.8	70.4	7.4	0.2	85.7	100.0

* A total of 51,124.1 AETDs were reportedly sold or distributed in the previous seven days. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

** Row sum – market share for the specified antimalarial medicine.

*** Column sum – market share for the specified outlet type.

[†] At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sums to 100% in the far-right column – antimalarial total column.

A total of 11,074 antimalarials were audited. Of these, 729 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A8: Antimalarial market share across outlet type

AETDs sold or distributed in the previous week by antimalarial type as a percentage of all AETDs sold/ distributed within each outlet type: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	%	%	%	%	%	%	%	%	%	%
1. Any ACT	62.5	31.4	72.6	61.1	51.8	47.5	31.8	47.8	4.6	34.7
Artemether Lumefantrine	56.4	31.4	47.6	54.5	47.6	39.7	29.2	41.7	4.6	31.5
Artesunate Amodiaquine	4.8	0.0	25.0	5.4	1.9	2.0	1.1	0.0	0.0	1.0
Dihydroartemisinin Piperazine	1.3	0.0	0.0	1.2	2.2	4.7	1.5	5.2	0.0	2.0
Other ACT	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.8	0.0	0.2
Quality Assured ACT (QAACT)	59.7	25.3	33.3	56.5	41.5	16.6	26.4	30.0	4.6	26.7
Artemether Lumefantrine QAACT	55.0	25.3	8.2	51.2	39.7	15.6	25.6	30.0	4.6	25.9
Artesunate Amodiaquine QAACT	4.7	0.0	25.0	5.3	1.8	0.9	0.8	0.0	0.0	0.8
QAACT with the "green leaf" logo	31.1	5.9	0.0	28.2	39.5	14.3	21.2	28.2	4.6	22.0
Non-quality-assured ACT	2.8	6.1	39.3	4.6	10.3	30.9	5.3	17.8	0.0	8.0
Artemether Lumefantrine non-quality-assured ACT	1.4	6.1	39.3	3.3	7.9	24.1	3.6	11.8	0.0	5.6
Artesunate Amodiaquine non-quality-assured ACT	0.1	0.0	0.0	0.1	0.1	1.1	0.2	0.0	0.0	0.2
Nationally Registered ACT	61.3	31.4	33.3	58.3	49.6	43.4	31.2	42.5	4.6	33.4
First-line ACT ^ψ	61.2	31.4	72.6	59.9	49.5	41.7	30.2	41.8	4.6	32.5
2. Any non-artemisinin therapy	33.9	67.7	27.4	35.6	42.7	49.4	64.5	48.4	95.4	61.6
Chloroquine	7.4	14.9	1.9	7.6	20.1	19.4	26.5	11.4	84.6	24.7
Sulfadoxine-Pyrimethamine	26.1	52.8	23.6	27.6	19.4	28.8	37.3	36.5	10.9	36.0
Oral Quinine	0.2	0.0	0.0	0.2	0.6	0.2	0.4	0.0	0.0	0.4
Quinine IV/IM	0.0	0.0	1.9	0.1	1.0	0.0	0.1	0.0	0.0	0.1
Amodiaquine	0.0	0.0	0.0	0.0	1.6	0.2	0.1	0.6	0.0	0.2
3. Oral artemisinin monotherapy	0.3	0.0	0.0	0.3	1.0	2.7	2.2	3.8	0.0	2.3
4. Non-oral artemisinin monotherapy	3.2	0.8	0.0	3.0	4.6	0.4	1.5	0.0	0.0	1.4
Artemether IV/IM	3.0	0.8	0.0	2.8	4.0	0.4	1.5	0.0	0.0	1.4
Artesunate IV/IM	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	3.2	0.8	1.9	3.0	5.0	0.4	1.6	0.0	0.0	1.5

* AETDs reportedly sold or distributed in the previous seven days: 2,956.1 public health facility; 129.6 CHW; 61.7 private not-for-profit HF; 1,796.3 private for-profit HF; 9,546.8 pharmacy; 34,544.4 drug store; 2,030.5 general retailer; 58.7 itinerant drug vendor. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sum to 100% within each column.

A total of 11,074 antimalarials were audited. Of these, 742 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information, including the following number of antimalarials by outlet type: 34 public health facility; 2 CHW; 1 private not-for-profit HF; 90 private for profit; 156 pharmacy; 449 drug store; 7 general retailer; 1 itinerant drug vendor.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A9: Provider case management knowledge and practices, by outlet type

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
Proportion of providers who:	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Would refer an adult with symptoms of severe malaria to a health facility	-	N=7	-	N=7	-	N=50	N=836	N=76	N=14	N=976	N=983
Yes, would refer to health facility	NA	80.5 (31.4, 97.4)	NA	80.5 (31.4, 97.4)	NA	65.2 (42.1, 82.8)	63.3 (57.5, 68.7)	75.2 (50.4, 90.1)	99.2 (92.6, 99.9)	65.2 (59.5, 70.5)	65.6 (60.0, 70.8)
Would recommend that a client with a negative malaria blood test take an antimalarial	N=644	N=4	N=2	N=650	N=88	N=24	N=295	N=10	N=0	N=417	N=1,067
Yes – sometimes	32.1 (19.1, 48.6)	42.7 (5.7, 90.1)	67.7 (9.9, 97.6)	33.9 (21.2, 49.5)	40.7 (26.1, 57.2)	33.9 (10.2, 69.8)	31.6 (24.6, 39.5)	43.4 (7.4, 88.0)	-	33.9 (27.8, 40.6)	33.9 (26.6, 42.1)
Yes – always	2.8 (0.9, 8.3)	0.0	32.3 (2.4, 90.1)	3.8 (1.4, 10.1)	3.4 (1.0, 10.9)	0.0	1.9 (0.6, 5.8)	0.0	-	2.0 (0.8, 4.7)	2.6 (1.3, 5.2)
Circumstances cited for recommending antimalarial treatment to a client who tested negative for malaria: *	N=244	N=2	N=2	N=248	N=42	N=5	N=91	N=5	N=0	N=143	N=391
Patient has signs and symptoms of malaria.	99.5 (96.9, 99.9)	100.0	100.0	99.5 (97.4, 99.9)	90.4 (65.3, 97.9)	100.0	92.3 (70.8, 98.3)	100.0	-	92.7 (78.5, 97.8)	95.1 (85.4, 98.5)
Provider doesn't trust the test results.	22.0 (7.8, 48.7)	0.0	0.0	18.7 (6.6, 43.0)	6.7 (2.5, 17.1)	0.0	16.2 (5.9, 37.4)	0.0	-	12.7 (5.1, 28.1)	14.8 (7.4, 27.4)
When the patient asks for antimalarial treatment.	0.4 (0.2, 0.9)	0.0	0.0	0.4 (0.2, 0.8)	6.5 (1.4, 24.9)	8.0 (0.7, 50.4)	13.3 (5.6, 28.2)	0.0	-	10.7 (4.8, 22.3)	7.1 (3.1, 15.3)
Other (all other reasons)	12.6 (3.0, 40.1)	0.0	0.0	10.7 (2.6, 35.3)	16.2 (5.3, 40.0)	0.0	1.3 (0.4, 4.3)	0.0	-	4.2 (1.8, 9.7)	6.5 (2.5, 15.8)

Provider questions were administered to one staff member working in each outlet eligible for a full interview (current/recent antimalarial-stocking outlets or outlets providing malaria blood testing).

* 3 providers were missing information on circumstances for recommending antimalarials to clients who tested negative for malaria.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table A10: Provider antimalarial treatment knowledge and practices, by outlet type

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of providers who:	N=709	N=7	N=4	N=720	N=79	N=50	N=845	N=76	N=14	N=1,064	N=1,784
Correctly state the national first-line treatment ^ψ for uncomplicated malaria	92.4 (83.0, 96.8)	47.2 (8.4, 89.7)	66.5 (35.8, 87.6)	86.8 (74.4, 93.7)	46.2 (25.3, 68.7)	86.2 (69.5, 94.4)	67.2 (60.7, 73.1)	44.7 (22.2, 69.7)	18.8 (5.2, 49.3)	62.8 (56.4, 68.8)	68.1 (62.6, 73.2)
Correctly state the first-line dosing regimen for:											
An adult	85.1 (72.3, 92.6)	42.1 (7.5, 86.6)	66.5 (35.8, 87.6)	80.2 (67.7, 88.7)	36.6 (19.4, 58.0)	70.4 (45.4, 87.2)	53.8 (47.7, 59.8)	36.8 (16.2, 63.6)	18.8 (5.2, 49.3)	50.5 (44.7, 56.2)	57.0 (52.2, 61.7)
A two-year old child	86.1 (74.5, 93.0)	18.0 (3.8, 54.9)	16.0 (1.3, 73.9)	75.6 (61.8, 85.5)	31.9 (17.0, 51.6)	73.3 (50.6, 88.0)	51.8 (44.3, 59.2)	38.1 (17.1, 64.7)	18.8 (5.2, 49.3)	48.7 (42.1, 55.3)	54.6 (48.5, 60.6)
Report an ACT as the most effective antimalarial medicine for:											
Adults	93.9 (87.7, 97.0)	31.5 (6.0, 76.8)	49.4 (26.9, 72.2)	85.6 (73.9, 92.5)	56.2 (31.6, 78.1)	82.8 (63.2, 93.1)	65.5 (58.6, 71.9)	64.5 (45.7, 79.7)	29.7 (10.4, 60.5)	64.3 (58.3, 69.9)	69.0 (63.7, 73.9)
Children	87.4 (72.2, 94.9)	38.7 (7.9, 82.3)	16.0 (1.3, 73.9)	78.4 (56.9, 90.9)	82.1 (61.5, 93.0)	88.9 (73.0, 96.0)	66.8 (60.3, 72.7)	64.7 (42.4, 82.0)	35.2 (10.8, 70.8)	67.5 (61.3, 73.1)	69.9 (64.2, 75.1)
Report an ACT as the antimalarial he/she most commonly recommends for:											
Adults	95.9 (91.1, 98.2)	31.5 (6.0, 76.8)	49.4 (26.9, 72.2)	87.2 (75.1, 93.9)	44.5 (23.3, 68.0)	78.6 (58.2, 90.6)	71.1 (63.8, 77.4)	60.5 (40.4, 77.6)	36.3 (11.4, 71.7)	67.4 (61.3, 72.9)	71.9 (66.5, 76.7)
Children	88.9 (73.3, 95.9)	38.7 (7.9, 82.3)	16.0 (1.3, 73.9)	79.7 (57.6, 91.9)	53.6 (30.0, 75.7)	89.7 (73.7, 96.5)	64.2 (58.2, 69.8)	53.4 (27.5, 77.5)	31.5 (8.6, 69.2)	62.1 (56.0, 67.8)	66.0 (60.0, 71.5)

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Numbers of providers (N) in this table are the total number of providers eligible for table indicators. The number of providers with missing information include:

13 providers were missing information on the national first-line treatment, 13 and 13 providers were missing information on the first-line dosing regimen for adults and children respectively, 22 and 22 providers were missing information on the most effective antimalarial medicine for adults and children respectively, 115 and 30 providers were missing information on the most often recommended antimalarial for adults and children respectively

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Results Section B: Core Indicators across Geo-political Zones

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones											
	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	NC N=107 NE N=116 NW N=120 SE N=118 SS N=88 SW N=174	NC N=2 NE N=7 NW N=2 SE N=2 SS N=0 SW N=0	NC N=4 NE N=1 NW N=0 SE N=0 SS N=0 SW N=1	NC N=113 NE N=124 NW N=122 SE N=120 SS N=88 SW N=175	NC N=9 NE N=7 NW N=4 SE N=23 SS N=20 SW N=48	NC N=4 NE N=3 NW N=1 SE N=7 SS N=9 SW N=30	NC N=90 NE N=97 NW N=87 SE N=102 SS N=199 SW N=300	NC N=292 NE N=532 NW N=341 SE N=472 SS N=489 SW N=1,213	NC N=1 NE N=16 NW N=6 SE N=0 SS N=2 SW N=2	NC N=396 NE N=655 NW N=439 SE N=604 SS N=719 SW N=1,593	NC N=509 NE N=779 NW N=561 SE N=724 SS N=807 SW N=1,768
Any antimalarial at the time of survey visit											
North Central	90.8 (62.6, 98.3)	0.0 -	100.0 -	89.6 (62.1, 97.9)	99.7 (96.5, 100.0)	93.9 (46.3, 99.6)	87.3 (65.8, 96.1)	6.1 (1.0, 30.4)	0.0 -	30.1 (22.0, 39.7)	36.2 (25.8, 48.1)
North East	90.0 (58.8, 98.3)	41.1 (9.1, 83.0)	0.0 -	71.8 (40.7, 90.5)	92.8 (54.9, 99.3)	100.0 -	96.9 (81.1, 99.6)	2.1 (0.8, 5.1)	43.8 (15.2, 77.1)	17.3 (13.6, 21.7)	22.8 (17.1, 29.7)
North West	90.4 (53.7, 98.7)	100.0 -	100.0 -	90.8 (54.9, 98.8)	50.0 -	100.0 -	97.7 (90.5, 99.5)	2.3 (0.6, 8.0)	61.5 (17.6, 92.3)	16.0 (11.9, 21.3)	22.4 (18.1, 27.3)
South East	97.3 (92.9, 99.0)	34.6 (2.7, 91.0)	- -	89.2 (58.1, 98.0)	64.5 (42.6, 81.6)	100.0 -	98.1 (91.0, 99.6)	0.3 (0.0, 2.4)	- -	17.7 (14.2, 21.8)	19.4 (16.0, 23.4)
South South	98.9 (95.3, 99.7)	- -	- -	98.9 (95.3, 99.7)	51.8 (20.3, 82.0)	87.8 (81.4, 92.3)	96.5 (90.0, 98.8)	0.1 (0.0, 0.5)	0.0 -	24.5 (16.8, 34.4)	26.6 (19.1, 35.8)
South West	91.1 (74.5, 97.3)	- -	0.0 -	90.8 (74.2, 97.1)	78.2 (48.4, 93.2)	86.8 (54.3, 97.3)	97.4 (93.0, 99.0)	4.1 (1.7, 9.4)	84.5 (23.0, 99.0)	26.3 (20.3, 33.3)	27.9 (22.0, 34.6)
Any ACT											
North Central	88.7 (62.9, 97.3)	0.0 -	66.5 (35.8, 87.6)	75.6 (48.4, 91.1)	99.7 (96.5, 100.0)	93.9 (46.3, 99.6)	70.5 (54.0, 83.0)	2.4 (0.5, 11.0)	0.0 -	23.6 (17.6, 30.9)	29.0 (22.1, 36.9)
North East	70.5 (30.9, 92.7)	9.4 (1.7, 37.8)	0.0 -	48.0 (19.8, 77.6)	78.4 (29.1, 97.0)	100.0 -	81.9 (65.1, 91.7)	0.4 (0.1, 1.7)	9.1 (3.0, 24.6)	13.2 (10.4, 16.6)	16.7 (12.2, 22.3)
North West	74.0 (44.5, 91.0)	100.0 -	- -	75.0 (46.0, 91.4)	50.0 -	100.0 -	63.9 (46.3, 78.4)	1.5 (0.2, 8.6)	15.5 (2.0, 61.6)	10.3 (6.7, 15.4)	15.8 (11.2, 21.8)
South East	95.9 (90.1, 98.4)	34.6 (2.7, 91.0)	- -	87.9 (58.7, 97.4)	45.3 (28.3, 63.6)	100.0 -	77.2 (65.6, 85.7)	0.3 (0.0, 2.4)	- -	13.9 (10.9, 17.5)	15.7 (13.0, 18.9)
South South	83.6 (39.8, 97.5)	- -	- -	83.6 (39.8, 97.5)	50.0 (19.3, 80.7)	87.8 (81.4, 92.3)	90.7 (82.3, 95.4)	0.1 (0.0, 0.5)	0.0 -	23.1 (15.5, 33.0)	24.8 (17.5, 33.8)
South West	89.9 (73.2, 96.7)	- -	0.0 -	89.7 (72.8, 96.6)	49.0 (14.3, 84.7)	85.2 (54.9, 96.5)	66.2 (42.6, 83.8)	3.7 (1.5, 8.5)	0.0 -	18.5 (15.5, 21.8)	20.2 (16.8, 24.1)

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Artemether Lumefantrine (AL)											
North Central	88.4 (62.7, 97.2)	0.0 -	66.5 (35.8, 87.6)	75.5 (48.3, 91.0)	99.7 (96.5, 100.0)	93.9 (46.3, 99.6)	68.3 (51.0, 81.6)	2.4 (0.5, 11.0)	0.0 -	23.1 (17.0, 30.5)	28.5 (21.6, 36.6)
North East	70.4 (30.9, 92.6)	9.4 (1.7, 37.8)	0.0 -	48.0 (19.8, 77.5)	78.4 (29.1, 97.0)	100.0 -	81.9 (65.1, 91.7)	0.4 (0.1, 1.7)	9.1 (3.0, 24.6)	13.2 (10.4, 16.6)	16.7 (12.2, 22.3)
North West	70.6 (40.7, 89.4)	100.0 -	- -	71.7 (42.3, 89.8)	50.0 -	100.0 -	63.7 (46.2, 78.2)	1.5 (0.2, 8.6)	15.5 (2.0, 61.6)	10.2 (6.7, 15.3)	15.5 (10.8, 21.6)
South East	94.8 (87.3, 97.9)	34.6 (2.7, 91.0)	- -	86.9 (58.8, 96.9)	35.2 (22.5, 50.5)	100.0 -	74.5 (64.5, 82.4)	0.3 (0.0, 2.4)	- -	13.2 (10.4, 16.7)	15.1 (12.4, 18.2)
South South	83.2 (40.1, 97.3)	- -	- -	83.2 (40.1, 97.3)	50.0 (19.3, 80.7)	87.8 (81.4, 92.3)	88.4 (79.6, 93.6)	0.1 (0.0, 0.5)	0.0 -	22.6 (15.4, 31.8)	24.2 (17.4, 32.6)
South West	88.5 (70.9, 96.0)	- -	0.0 -	88.2 (70.6, 95.9)	47.2 (13.5, 83.6)	85.2 (54.9, 96.5)	66.2 (42.6, 83.8)	3.7 (1.5, 8.5)	0.0 -	18.4 (15.5, 21.7)	20.1 (16.7, 23.9)
Artesunate Amodiaquine (ASAQ)											
North Central	40.7 (21.5, 63.3)	0.0 -	50.6 (27.8, 73.1)	42.4 (26.8, 59.6)	10.4 (0.9, 59.4)	93.9 (46.3, 99.6)	18.8 (8.2, 37.2)	0.0 -	0.0 -	5.4 (2.7, 10.5)	9.2 (5.5, 15.0)
North East	9.8 (1.2, 50.4)	0.0 -	0.0 -	6.2 (0.7, 38.1)	0.0 -	0.0 -	5.5 (1.7, 16.4)	0.0 -	0.0 -	0.8 (0.3, 2.3)	1.3 (0.5, 3.9)
North West	8.5 (1.5, 35.7)	0.0 -	- -	8.2 (1.5, 34.7)	0.0 -	0.0 -	2.0 (0.6, 6.0)	0.0 -	0.0 -	0.3 (0.1, 0.9)	0.9 (0.3, 3.2)
South East	69.0 (41.2, 87.6)	0.0 -	- -	60.0 (30.6, 83.6)	9.2 (2.2, 31.9)	57.4 (12.5, 92.7)	21.1 (11.3, 35.8)	0.0 -	- -	3.8 (2.2, 6.2)	5.1 (3.4, 7.8)
South South	23.0 (9.0, 47.4)	- -	- -	23.0 (9.0, 47.4)	15.4 (3.1, 50.7)	80.4 (63.6, 90.6)	30.6 (21.7, 41.3)	0.1 (0.0, 0.5)	0.0 -	7.9 (4.3, 14.2)	8.4 (4.8, 14.2)
South West	56.8 (21.7, 86.2)	- -	0.0 -	56.6 (21.6, 86.1)	23.6 (3.7, 71.0)	60.9 (42.4, 76.7)	7.2 (2.6, 18.0)	0.2 (0.0, 0.8)	0.0 -	2.8 (1.4, 5.7)	4.1 (2.2, 7.6)

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Quality Assured ACT (QAACT)											
North Central	88.4 (63.3, 97.1)	0.0 -	50.6 (27.8, 73.1)	69.4 (43.0, 87.2)	99.7 (96.5, 100.0)	93.9 (46.3, 99.6)	64.1 (48.6, 77.1)	2.4 (0.5, 11.0)	0.0 -	22.1 (15.8, 29.9)	27.0 (19.6, 36.0)
North East	69.4 (30.6, 92.1)	9.4 (1.7, 37.8)	0.0 -	47.3 (19.5, 77.0)	78.4 (29.1, 97.0)	100.0 -	81.0 (64.3, 91.0)	0.4 (0.1, 1.7)	9.1 (3.0, 24.6)	13.0 (10.3, 16.4)	16.5 (12.1, 22.1)
North West	72.4 (43.6, 89.9)	100 -	- -	73.5 (45.2, 90.3)	34.3 (11.0, 69.0)	100.0 -	63.5 (46.1, 78.0)	1.5 (0.2, 8.6)	15.5 (2.0, 61.6)	10.2 (6.7, 15.3)	15.6 (11.1, 21.5)
South East	95.5 (89.5, 98.2)	34.6 (2.7, 91.0)	- -	87.6 (58.8, 97.2)	35.2 (22.5, 50.5)	88.9 (55.9, 98.1)	73.6 (63.3, 81.9)	0.3 (0.0, 2.4)	- -	13.1 (10.3, 16.5)	14.9 (12.3, 17.9)
South South	80.8 (40.8, 96.2)	- -	- -	80.8 (40.8, 96.2)	46.2 (17.1, 78.2)	75.7 (63.4, 84.8)	87.2 (78.7, 92.7)	0.1 (0.0, 0.5)	0.0 -	22.2 (15.1, 31.3)	23.8 (17.1, 32.1)
South West	89.5 (72.7, 96.5)	- -	0.0 -	89.3 (72.3, 96.4)	44.5 (12.4, 81.9)	79.8 (50.4, 93.9)	65.7 (42.5, 83.2)	3.6 (1.5, 8.5)	0.0 -	18.1 (15.2, 21.5)	19.9 (16.5, 23.7)
QA AL											
North Central	88.2 (63.2, 97.0)	0.0 -	50.6 (27.8, 73.1)	69.2 (42.9, 87.1)	99.7 (96.5, 100.0)	93.9 (46.3, 99.6)	64.1 (48.6, 77.1)	2.4 (0.5, 11.0)	0.0 -	22.1 (15.8, 29.9)	27.0 (19.5, 36.0)
North East	69.4 (30.6, 92.1)	9.4 (1.7, 37.8)	0.0 -	47.3 (19.5, 77.0)	78.4 (29.1, 97.0)	100.0 -	80.6 (63.9, 90.7)	0.4 (0.1, 1.7)	9.1 (3.0, 24.6)	13.0 (10.2, 16.4)	16.4 (12.0, 22.1)
North West	69.0 (39.8, 88.2)	100.0 -	- -	70.2 (41.5, 88.7)	34.3 (11.0, 69.0)	100.0 -	63.5 (46.1, 78.0)	1.5 (0.2, 8.6)	15.5 (2.0, 61.6)	10.2 (6.7, 15.3)	15.3 (10.7, 21.3)
South East	94.3 (86.7, 97.7)	34.6 (2.7, 91.0)	- -	86.5 (58.8, 96.7)	33.9 (21.8, 48.5)	88.9 (55.9, 98.1)	72.1 (63.2, 79.5)	0.3 (0.0, 2.4)	- -	12.8 (10.0, 16.2)	14.6 (12.0, 17.6)
South South	80.5 (40.8, 96.1)	- -	- -	80.5 (40.8, 96.1)	46.2 (17.1, 78.2)	63.5 (46.5, 77.8)	85.1 (74.5, 91.8)	0.1 (0.0, 0.5)	0.0 -	21.6 (15.0, 30.1)	23.3 (17.0, 31.0)
South West	87.7 (69.8, 95.7)	- -	0.0 -	87.5 (69.5, 95.5)	43.8 (12.1, 81.5)	79.8 (50.4, 93.9)	65.4 (42.5, 82.9)	3.6 (1.5, 8.5)	0.0 -	18.0 (15.2, 21.3)	19.7 (16.4, 23.5)

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
QA ASAQ											
North Central	40.7 (21.5, 63.3)	0.0 -	50.6 (27.8, 73.1)	42.4 (26.8, 59.6)	10.4 (0.9, 59.4)	91.2 (44.0, 99.3)	15.8 (5.9, 36.1)	0.0 -	0.0 -	4.7 (2.1, 10.1)	8.6 (4.9, 14.6)
North East	9.8 (1.1, 50.4)	0.0 -	0.0 -	6.2 (0.7, 38.1)	0.0 -	0.0 -	1.2 (0.3, 5.3)	0.0 -	0.0 -	0.2 (0.0, 0.7)	0.8 (0.1, 4.2)
North West	8.5 (1.5, 35.7)	0.0 -	- -	8.2 (1.5, 34.7)	0.0 -	0.0 -	0.0 -	0.0 -	0.0 -	0.0 -	0.7 (0.1, 3.5)
South East	67.9 (39.9, 87.1)	0.0 -	- -	59.1 (29.7, 83.1)	5.6 (0.9, 27.8)	24.6 (2.9, 78.1)	14.6 (6.0, 31.4)	0.0 -	- -	2.5 (1.2, 5.4)	3.9 (2.3, 6.7)
South South	20.6 (7.5, 45.2)	- -	- -	20.6 (7.5, 45.2)	15.4 (3.1, 50.7)	36.5 (22.2, 53.5)	21.4 (14.9, 29.8)	0.1 (0.0, 0.5)	0.0 -	5.6 (3.1, 9.8)	6.0 (3.6, 9.8)
South West	56.8 (21.7, 86.2)	- -	0.0 -	56.6 (21.6, 86.1)	22.6 (3.3, 71.2)	29.7 (15.3, 49.7)	6.0 (2.1, 16.2)	0.1 (0.0, 1.0)	0.0 -	2.4 (1.1, 5.2)	3.7 (1.9, 7.1)
QAACT – child (<5 years)											
North Central	77.3 (41.4, 94.2)	0.0 -	50.6 (27.8, 73.1)	63.1 (36.9, 83.3)	46.9 (25.2, 69.9)	91.2 (44.0, 99.3)	42.6 (26.6, 60.4)	2.4 (0.5, 11.0)	0.0 -	14.5 (9.4, 21.5)	19.5 (13.1, 28.0)
North East	66.5 (29.2, 90.5)	0.0 -	0.0 -	42.1 (15.5, 74.2)	70.6 (23.2, 95.0)	100.0 -	65.8 (46.8, 80.8)	0.4 (0.1, 1.7)	9.1 (3.0, 24.6)	10.8 (8.3, 13.9)	13.9 (10.5, 18.3)
North West	60.4 (31.9, 83.3)	100.0 -	- -	62.0 (34.2, 83.6)	34.3 (11.0, 69.0)	100.0 -	60.6 (44.6, 74.7)	1.5 (0.2, 8.6)	15.5 (2.0, 61.6)	9.8 (6.5, 14.6)	14.2 (10.3, 19.3)
South East	87.8 (67.6, 96.1)	34.6 (2.7, 91.0)	- -	80.9 (54.4, 93.7)	18.5 (5.7, 46.3)	88.9 (55.9, 98.1)	65.1 (54.3, 74.5)	0.3 (0.0, 2.4)	- -	11.3 (8.9, 14.2)	13.0 (10.8, 15.7)
South South	77.0 (40.1, 94.4)	- -	- -	77.0 (40.1, 94.4)	44.4 (15.8, 77.3)	56.1 (53.4, 58.7)	74.4 (63.5, 82.9)	0.1 (0.0, 0.5)	0.0 -	19.0 (13.6, 25.9)	20.6 (15.6, 26.8)
South West	88.5 (71.1, 96.0)	- -	0.0 -	88.2 (70.7, 95.9)	39.4 (10.0, 79.2)	71.0 (48.6, 86.4)	60.0 (41.9, 75.7)	3.2 (1.3, 7.6)	0.0 -	16.4 (13.5, 19.6)	18.1 (15.0, 21.7)

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
QAACT – adult											
North Central	75.9 (40.8, 93.5)	0.0 -	33.5 (12.4, 64.2)	55.7 (29.6, 79.1)	15.0 (2.0, 60.9)	93.9 (46.3, 99.6)	54.4 (40.2, 67.9)	0.5 (0.1, 4.5)	0.0 -	14.2 (10.9, 18.3)	18.5 (13.7, 24.6)
North East	58.4 (25.3, 85.3)	9.4 (1.7, 37.8)	0.0 -	40.4 (15.9, 70.9)	21.0 (4.1, 62.4)	34.2 (10.6, 69.6)	48.0 (38.0, 58.2)	0.0 -	8.0 (1.9, 28.6)	7.3 (5.6, 9.5)	10.6 (7.0, 15.7)
North West	39.4 (16.5, 68.2)	0.0 -	- -	37.9 (16.1, 65.8)	0.0 -	0.0 -	16.6 (7.1, 34.1)	0.3 (0.0, 2.4)	0.0 -	2.5 (1.0, 6.1)	5.5 (2.8, 10.2)
South East	71.0 (38.8, 90.5)	0.0 -	- -	61.8 (31.2, 85.2)	22.5 (7.7, 50.3)	77.8 (29.9, 96.6)	55.9 (44.0, 67.2)	0.0 -	- -	9.7 (7.5, 12.4)	11.0 (8.8, 13.6)
South South	43.7 (18.9, 72.2)	- -	- -	43.7 (18.9, 72.2)	20.2 (5.3, 53.6)	39.2 (17.3, 66.6)	68.4 (59.6, 76.1)	0.0 -	0.0 -	17.0 (12.3, 23.0)	17.7 (13.2, 23.3)
South West	85.3 (65.6, 94.6)	- -	0.0 -	85.0 (65.3, 94.5)	26.9 (5.2, 71.2)	74.0 (47.7, 89.9)	42.0 (28.7, 56.6)	2.9 (1.1, 7.4)	0.0 -	12.0 (9.5, 15.1)	13.8 (11.5, 16.5)
QAACT with the “green leaf” logo											
North Central	86.6 (61.8, 96.3)	0.0 -	50.6 (27.8, 73.1)	68.3 (42.2, 86.4)	99.7 (96.5, 100.0)	93.9 (46.3, 99.6)	64.1 (48.6, 77.1)	2.4 (0.5, 11.0)	0.0 -	22.1 (15.8, 29.9)	26.9 (19.5, 35.9)
North East	26.4 (7.6, 61.0)	0.0 -	0.0 -	16.8 (4.5, 46.1)	34.2 (4.7, 84.5)	100.0 -	55.2 (37.8, 71.4)	0.4 (0.1, 1.7)	9.1 (3.0, 24.6)	8.9 (6.7, 11.8)	9.7 (6.8, 13.8)
North West	59.7 (30.0, 83.7)	100.0 -	- -	61.3 (32.3, 84.0)	34.3 (11.0, 69.0)	100.0 -	63.5 (46.1, 78.0)	1.5 (0.2, 8.6)	15.5 (2.0, 61.6)	10.2 (6.7, 15.3)	14.5 (10.0, 20.7)
South East	63.5 (26.6, 89.3)	34.6 (2.7, 91.0)	- -	59.7 (26.9, 85.7)	30.2 (18.0, 46.1)	88.9 (55.9, 98.1)	70.8 (58.1, 80.8)	0.0 -	- -	12.2 (9.2, 16.0)	13.4 (10.5, 17.0)
South South	65.0 (30.3, 88.8)	- -	- -	65.0 (30.3, 88.8)	46.2 (17.1, 78.2)	51.4 (30.8, 71.5)	85.6 (77.3, 91.2)	0.1 (0.0, 0.5)	0.0 -	21.7 (14.9, 30.5)	22.9 (16.3, 31.2)
South West	88.0 (71.1, 95.7)	- -	0.0 -	87.8 (70.7, 95.5)	44.5 (12.4, 81.9)	79.8 (50.4, 93.9)	63.1 (42.7, 79.7)	3.6 (1.5, 8.5)	0.0 -	17.6 (14.5, 21.2)	19.3 (15.9, 23.2)

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Any non-artemisinin therapy											
North Central	75.0 (35.9, 94.1)	0.0 -	82.9 (24.3, 98.7)	74.1 (41.5, 92.0)	80.6 (24.2, 98.2)	93.9 (46.3, 99.6)	86.1 (65.6, 95.3)	6.1 (1.0, 30.4)	0.0 -	28.8 (20.2, 39.4)	33.5 (22.3, 46.9)
North East	43.0 (15.3, 75.9)	41.1 (9.1, 83.0)	0.0 -	42.1 (22.9, 64.0)	35.5 (9.3, 74.7)	100.0 -	94.3 (79.4, 98.6)	2.1 (0.8, 5.1)	43.8 (15.2, 77.1)	16.4 (12.9, 20.7)	19.0 (14.2, 24.9)
North West	57.3 (25.8, 83.8)	100.0 -	- -	58.9 (27.4, 84.5)	50.0 -	100.0 -	97.7 (90.5, 99.5)	2.0 (0.5, 7.7)	46.1 (5.9, 92.1)	15.6 (11.5, 20.7)	19.2 (14.4, 25.2)
South East	42.3 (16.0, 73.9)	34.6 (2.7, 91.0)	- -	41.3 (16.4, 71.7)	49.1 (25.5, 73.0)	100.0 -	95.9 (86.8, 98.8)	0.3 (0.0, 2.4)	- -	16.9 (13.5, 21.1)	17.5 (14.3, 21.4)
South South	58.7 (30.5, 82.2)	- -	- -	58.7 (30.5, 82.2)	40.8 (13.7, 75.0)	80.4 (63.6, 90.6)	93.7 (85.5, 97.4)	0.1 (0.0, 0.5)	0.0 -	23.6 (15.9, 33.6)	24.6 (16.9, 34.4)
South West	20.2 (8.4, 40.8)	- -	0.0 -	20.1 (8.4, 40.7)	75.8 (47.9, 91.4)	83.9 (54.6, 95.7)	96.2 (90.3, 98.6)	4.0 (1.7, 9.2)	84.5 (23.0, 99.0)	25.8 (19.9, 32.9)	25.7 (19.9, 32.5)
Chloroquine											
North Central	3.2 (1.3, 7.5)	0.0 -	33.5 (12.4, 64.2)	14.6 (3.2, 47.2)	80.6 (24.2, 98.2)	93.9 (46.3, 99.6)	83.8 (64.1, 93.8)	6.1 (1.0, 30.4)	0.0 -	28.3 (19.9, 38.6)	26.9 (19.5, 35.9)
North East	5.1 (1.2, 19.0)	41.1 (9.1, 83.0)	0.0 -	18.1 (6.1, 42.7)	22.2 (4.3, 64.6)	100.0 -	89.5 (76.3, 95.8)	1.2 (0.5, 3.1)	25.2 (5.7, 65.1)	14.7 (11.9, 17.9)	15.0 (12.8, 17.5)
North West	47.2 (21.0, 75.0)	100.0 -	- -	49.2 (23.2, 75.7)	50.0 -	100.0 -	97.5 (90.8, 99.3)	1.7 (0.4, 8.0)	46.1 (5.9, 92.1)	15.3 (11.3, 20.5)	18.2 (13.7, 23.9)
South East	12.9 (3.7, 36.1)	34.6 (2.7, 91.0)	- -	15.7 (4.1, 44.8)	29.0 (12.9, 53.0)	88.9 (55.9, 98.1)	86.9 (74.5, 93.8)	0.3 (0.0, 2.4)	- -	15.0 (11.6, 19.1)	15.0 (11.7, 19.0)
South South	21.5 (4.0, 64.0)	- -	- -	21.5 (4.0, 64.0)	26.9 (5.7, 69.2)	56.1 (53.4, 58.7)	83.8 (73.9, 90.5)	0.1 (0.0, 0.5)	0.0 -	20.9 (14.8, 28.6)	20.9 (15.0, 28.4)
South West	1.7 (0.7, 4.0)	- -	0.0 -	1.7 (0.7, 4.0)	57.3 (29.9, 80.8)	81.0 (52.0, 94.4)	85.1 (73.8, 92.0)	3.2 (1.3, 8.0)	0.0 -	22.3 (17.6, 27.7)	21.8 (17.1, 27.2)

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Sulfadoxine- Pyrimethamine											
North Central	69.8 (31.6, 92.1)	0.0 -	33.5 (12.4, 64.2)	52.3 (26.3, 77.2)	12.1 (1.7, 52.8)	93.9 (46.3, 99.6)	65.1 (47.6, 79.3)	2.4 (0.5, 11.0)	0.0 -	17.9 (13.8, 22.8)	21.4 (15.4, 29.1)
North East	40.3 (13.6, 74.3)	31.7 (3.4, 86.1)	0.0 -	37.0 (16.8, 63.0)	21.0 (4.1, 62.4)	65.8 (30.4, 89.4)	74.2 (54.2, 87.5)	1.2 (0.2, 5.6)	18.6 (6.8, 41.4)	12.2 (8.7, 17.0)	14.7 (9.8, 21.6)
North West	40.2 (16.5, 69.6)	100.0 -	- -	42.5 (18.2, 71.1)	50.0 -	100.0 -	55.2 (38.1, 71.1)	0.5 (0.1, 1.9)	0.0 -	8.0 (5.2, 12.2)	10.9 (7.1, 16.4)
South East	34.9 (11.7, 68.4)	34.6 (2.7, 91.0)	- -	34.8 (12.3, 67.1)	16.9 (5.1, 43.4)	100.0 -	83.1 (72.6, 90.1)	0.0 -	- -	13.9 (11.6, 16.7)	14.4 (12.2, 17.0)
South South	52.3 (24.6, 78.7)	- -	- -	52.3 (24.6, 78.7)	37.4 (11.7, 72.9)	56.1 (53.4, 58.7)	84.5 (76.8, 89.9)	0.1 (0.0, 0.5)	0.0 -	21.3 (14.3, 30.5)	22.1 (15.2, 31.1)
South West	19.5 (8.0, 40.3)	- -	0.0 -	19.4 (8.0, 40.1)	26.8 (5.2, 71.2)	76.6 (53.2, 90.4)	77.9 (68.2, 85.3)	3.5 (1.4, 8.2)	84.5 (23.0, 99.0)	19.8 (15.5, 24.9)	19.8 (15.5, 24.8)
Any artemisinin monotherapy											
North Central	52.6 (32.6, 71.8)	0.0 -	0.0 -	29.8 (11.7, 57.7)	55.6 (32.1, 76.8)	93.9 (46.3, 99.6)	27.2 (12.3, 49.8)	1.9 (0.3, 12.2)	0.0 -	11.0 (5.9, 19.5)	12.9 (7.4, 21.5)
North East	29.6 (7.5, 68.4)	0.0 -	0.0 -	18.8 (6.0, 45.3)	77.9 (28.6, 96.9)	68.4 (9.0, 97.9)	47.4 (32.0, 63.2)	0.0 -	0.0 -	7.6 (5.1, 11.4)	8.8 (6.1, 12.3)
North West	42.9 (17.6, 72.5)	50.0 -	- -	43.1 (18.5, 71.7)	50.0 -	100.0 -	48.9 (31.4, 66.7)	0.0 -	0.0 -	6.8 (4.1, 11.1)	9.9 (6.4, 15.0)
South East	45.7 (17.4, 77.1)	0.0 -	- -	39.8 (15.6, 70.1)	32.2 (16.6, 52.9)	100.0 -	27.7 (14.4, 46.5)	0.0 -	- -	5.5 (3.1, 9.5)	6.3 (4.0, 9.9)
South South	34.8 (13.9, 63.9)	- -	- -	34.8 (13.9, 63.9)	26.7 (10.8, 52.4)	75.7 (63.4, 84.8)	49.1 (37.9, 60.3)	0.1 (0.0, 0.5)	0.0 -	12.6 (7.7, 20.1)	13.2 (8.2, 20.6)
South West	13.6 (5.0, 32.2)	- -	0.0 -	13.6 (5.0, 32.0)	47.5 (13.7, 83.7)	79.3 (54.7, 92.4)	20.2 (10.3, 36.0)	2.2 (0.7, 6.9)	0.0 -	8.0 (5.3, 12.1)	8.2 (5.4, 12.3)

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Oral artemisinin monotherapy											
North Central	8.9 (1.1, 45.7)	0.0 -	0.0 -	5.0 (0.7, 29.5)	0.0 -	93.9 (46.3, 99.6)	25.6 (11.1, 48.6)	1.9 (0.3, 12.2)	0.0 -	7.8 (3.5, 16.3)	7.5 (3.6, 14.8)
North East	2.3 (0.3, 14.0)	0.0 -	0.0 -	1.4 (0.2, 9.3)	0.0 -	34.2 (10.6, 69.6)	13.5 (5.3, 30.5)	0.0 -	0.0 -	2.0 (0.9, 4.6)	2.0 (0.9, 4.3)
North West	0.2 (0.1, 0.6)	0.0 -	- -	0.2 (0.1, 0.6)	50.0 -	100.0 -	13.9 (5.7, 30.2)	0.0 -	0.0 -	2.1 (0.8, 5.4)	2.0 (0.8, 5.0)
South East	6.4 (1.1, 29.6)	0.0 -	- -	5.5 (1.1, 24.3)	21.9 (10.3, 40.7)	88.9 (55.9, 98.1)	24.8 (13.0, 42.1)	0.0 -	- -	4.8 (2.7, 8.1)	4.8 (2.8, 8.1)
South South	5.9 (1.8, 17.7)	- -	- -	5.9 (1.8, 17.7)	19.3 (6.7, 44.6)	75.7 (63.4, 84.8)	48.3 (37.6, 59.2)	0.1 (0.0, 0.5)	0.0 -	12.3 (7.5, 19.4)	12.1 (7.4, 19.1)
South West	2.0 (0.6, 6.8)	- -	0.0 -	2.0 (0.6, 6.8)	1.5 (0.4, 5.6)	76.4 (54.4, 89.8)	16.0 (9.2, 26.4)	2.2 (0.7, 6.9)	0.0 -	5.3 (3.3, 8.5)	5.2 (3.2, 8.4)
Non-oral artemisinin monotherapy											
North Central	51.8 (31.9, 71.2)	0.0 -	0.0 -	29.4 (11.4, 57.4)	55.6 (32.1, 76.8)	93.9 (46.3, 99.6)	4.9 (1.3, 16.8)	0.0 -	0.0 -	4.5 (2.2, 9.1)	7.1 (4.4, 11.2)
North East	27.5 (6.4, 67.9)	0.0 -	0.0 -	17.4 (5.1, 45.3)	77.9 (28.6, 96.9)	68.4 (9.0, 97.9)	41.1 (27.0, 56.8)	0.0 -	0.0 -	6.7 (4.2, 10.7)	7.8 (5.1, 11.8)
North West	42.8 (17.6, 72.5)	50.0 -	- -	43.1 (18.5, 71.7)	15.7 (1.6, 68.7)	100.0 -	45.1 (28.6, 62.8)	0.0 -	0.0 -	6.2 (3.7, 10.4)	9.4 (6.0, 14.4)
South East	40.2 (14.0, 73.7)	0.0 -	- -	35.0 (12.0, 67.9)	21.0 (5.4, 55.1)	79.6 (45.9, 94.7)	6.9 (1.8, 23.7)	0.0 -	- -	1.9 (0.7, 4.8)	2.7 (1.4, 5.2)
South South	33.7 (13.0, 63.4)	- -	- -	33.7 (13.0, 63.4)	14.8 (4.2, 41.2)	31.8 (24.3, 40.3)	3.7 (1.6, 8.4)	0.0 -	0.0 -	1.3 (0.6, 3.0)	2.2 (1.2, 3.8)
South West	13.1 (4.8, 31.2)	- -	0.0 -	13.1 (4.8, 31.1)	47.3 (13.7, 83.6)	44.3 (27.0, 63.1)	4.3 (0.5, 28.3)	0.0 -	0.0 -	3.0 (1.0, 8.4)	3.2 (1.2, 8.3)

Table B1: Availability of antimalarials, among all screened outlets, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Artemether IV/IM											
North Central	51.6 (31.7, 71.0)	0.0 -	0.0 -	29.2 (11.3, 57.3)	55.6 (32.1, 76.8)	93.9 (46.3, 99.6)	4.9 (1.3, 16.8)	0.0 -	0.0 -	4.5 (2.2, 9.1)	7.0 (4.4, 11.2)
North East	25.9 (5.6, 67.3)	0.0 -	0.0 -	16.4 (4.5, 45.0)	70.6 (23.2, 95.0)	68.4 (9.0, 97.9)	41.1 (27.0, 56.8)	0.0 -	0.0 -	6.7 (4.1, 10.6)	7.6 (5.0, 11.6)
North West	42.8 (17.6, 72.5)	50.0 -	- -	43.1 (18.5, 71.7)	15.7 (1.6, 68.7)	100.0 -	45.1 (28.6, 62.8)	0.0 -	0.0 -	6.2 (3.7, 10.4)	9.4 (6.0, 14.4)
South East	20.2 (4.8, 56.2)	0.0 -	- -	17.6 (4.2, 51.1)	10.9 (2.2, 39.6)	45.1 (11.7, 83.6)	6.9 (1.8, 23.7)	0.0 -	- -	1.5 (0.5, 4.3)	1.9 (0.8, 4.6)
South South	31.4 (11.3, 62.1)	- -	- -	31.4 (11.3, 62.1)	14.8 (4.2, 41.2)	31.8 (24.3, 40.3)	3.7 (1.6, 8.4)	0.0 -	0.0 -	1.3 (0.6, 3.0)	2.1 (1.2, 3.8)
South West	12.6 (4.6, 30.4)	- -	0.0 -	12.6 (4.5, 30.3)	45.7 (13.0, 82.6)	41.4 (23.2, 62.3)	4.3 (0.5, 28.3)	0.0 -	0.0 -	2.9 (1.0, 8.5)	3.2 (1.2, 8.3)
Any treatment for severe malaria											
North Central	52.6 (32.5, 71.9)	0.0 -	16.0 (1.3, 73.9)	35.9 (15.0, 63.9)	59.9 (34.6, 80.8)	93.9 (46.3, 99.6)	4.9 (1.3, 16.8)	0.0 -	0.0 -	4.7 (2.3, 9.3)	7.9 (5.1, 12.1)
North East	27.8 (6.5, 67.9)	0.0 -	0.0 -	17.6 (5.2, 45.2)	85.6 (31.5, 98.7)	68.4 (9.0, 97.9)	49.9 (38.6, 61.2)	0.0 -	0.0 -	8.1 (5.7, 11.3)	9.0 (6.7, 12.1)
North West	42.9 (17.6, 72.5)	50.0 -	- -	43.2 (18.5, 71.7)	15.7 (1.6, 68.7)	100.0 -	45.1 (28.6, 62.8)	0.0 -	0.0 -	6.2 (3.7, 10.4)	9.4 (6.0, 14.4)
South East	41.8 (14.9, 74.6)	0.0 -	- -	36.3 (12.9, 68.7)	23.0 (4.7, 64.2)	79.6 (45.9, 94.7)	6.9 (1.8, 23.7)	0.0 -	- -	1.9 (0.7, 5.0)	2.8 (1.4, 5.4)
South South	34.7 (13.7, 64.0)	- -	- -	34.7 (13.7, 64.0)	14.8 (4.2, 41.2)	31.8 (24.3, 40.3)	3.7 (1.6, 8.4)	0.0 -	0.0 -	1.3 (0.6, 3.0)	2.2 (1.2, 3.9)
South West	13.2 (4.8, 31.3)	- -	0.0 -	13.2 (4.8, 31.1)	46.9 (13.5, 83.4)	44.3 (27.0, 63.1)	4.3 (0.5, 28.3)	0.0 -	0.0 -	3.0 (1.0, 8.4)	3.2 (1.2, 8.3)

* The denominator includes 51 outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview).

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	NC N=99 NE N=105 NW N=108 SE N=108 SS N=83 SW N=156	NC N=0 NE N=2 NW N=2 SE N=1 SS N=0 SW N=0	NC N=4 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=103 NE N=107 NW N=110 SE N=109 SS N=83 SW N=156	NC N=8 NE N=6 NW N=2 SE N=12 SS N=13 SW N=35	NC N=3 NE N=3 NW N=1 SE N=7 SS N=8 SW N=28	NC N=84 NE N=95 NW N=85 SE N=98 SS N=194 SW N=281	NC N=4 NE N=6 NW N=5 SE N=2 SS N=1 SW N=53	NC N=0 NE N=8 NW N=3 SE N=0 SS N=0 SW N=1	NC N=99 NE N=118 NW N=96 SE N=119 SS N=216 SW N=398	NC N=202 NE N=225 NW N=206 SE N=228 SS N=299 SW N=554
Any ACT											
North Central	97.6 (94.9, 98.9)	- -	66.5 (35.8, 87.6)	84.4 (49.6, 96.7)	100.0 -	100.0 -	80.8 (64.2, 90.8)	39.2 (25.0, 55.5)	- -	78.4 (58.6, 90.3)	79.9 (69.4, 87.5)
North East	78.3 (28.8, 97.0)	22.9 (1.3, 86.7)	- -	66.9 (17.6, 95.0)	84.4 (39.5, 97.8)	100.0 -	84.5 (67.8, 93.4)	21.7 (3.5, 67.6)	20.8 (11.1, 35.7)	76.2 (67.9, 82.9)	73.2 (53.2, 86.8)
North West	81.8 (52.6, 94.8)	100.0 -	- -	82.6 (54.1, 95.0)	100.0 -	100.0 -	65.4 (46.9, 80.2)	66.8 (21.5, 93.7)	25.1 (1.6, 87.4)	64.1 (47.8, 77.7)	70.5 (55.3, 82.2)
South East	98.6 (94.8, 99.6)	100.0 -	- -	98.6 (95.1, 99.6)	70.3 (45.3, 87.1)	100.0 -	78.7 (66.3, 87.4)	100.0 -	- -	78.7 (67.7, 86.7)	80.9 (71.7, 87.7)
South South	84.5 (38.5, 97.9)	- -	- -	84.5 (38.5, 97.9)	96.5 (73.8, 99.6)	100.0 -	94.0 (85.3, 97.7)	100.0 -	- -	94.2 (86.0, 97.7)	93.2 (86.3, 96.8)
South West	98.8 (95.0, 99.7)	- -	- -	98.8 (95.0, 99.7)	62.7 (22.3, 90.7)	98.2 (87.2, 99.8)	68.0 (41.9, 86.2)	89.6 (72.2, 96.6)	0.0 -	70.2 (50.4, 84.5)	72.5 (52.8, 86.1)
Artemether Lumefantrine (AL)											
North Central	97.3 (94.2, 98.8)	- -	66.5 (35.8, 87.6)	84.2 (49.7, 96.6)	100.0 -	100.0 -	78.2 (59.3, 89.8)	39.2 (25.0, 55.5)	- -	76.7 (56.4, 89.3)	78.6 (67.4, 86.7)
North East	78.2 (28.9, 96.9)	22.9 (1.3, 86.7)	- -	66.8 (17.6, 95.0)	84.4 (39.5, 97.8)	100.0 -	84.5 (67.8, 93.4)	21.7 (3.5, 67.6)	20.8 (11.1, 35.7)	76.2 (67.9, 82.9)	73.2 (53.2, 86.8)
North West	78.0 (47.1, 93.4)	100.0 -	- -	79.0 (48.7, 93.7)	100.0 -	100.0 -	65.2 (46.8, 80.0)	66.8 (21.5, 93.7)	25.1 (1.6, 87.4)	63.9 (47.7, 77.6)	69.1 (53.0, 81.7)
South East	97.4 (92.6, 99.1)	100.0 -	- -	97.5 (93.1, 99.1)	54.6 (33.3, 74.4)	100.0 -	76.0 (65.3, 84.2)	100.0 -	- -	74.9 (66.0, 82.2)	77.5 (70.2, 83.4)
South South	84.1 (38.9, 97.8)	- -	- -	84.1 (38.9, 97.8)	96.5 (73.8, 99.6)	100.0 -	91.6 (81.7, 96.4)	100.0 -	- -	91.9 (82.8, 96.4)	91.1 (83.8, 95.3)
South West	97.1 (89.5, 99.3)	- -	- -	97.1 (89.5, 99.3)	60.3 (21.3, 89.5)	98.2 (87.2, 99.8)	68.0 (41.9, 86.2)	89.6 (72.2, 96.6)	0.0 -	69.9 (50.4, 84.2)	72.1 (52.8, 85.6)

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Artesunate Amodiaquine (ASAQ)											
North Central	44.8 (24.7, 66.8)	- -	50.6 (27.8, 73.1)	47.3 (31.6, 63.4)	10.4 (0.9, 59.5)	100.0 -	21.5 (9.5, 41.5)	0.0 -	- -	18.0 (8.9, 32.9)	25.5 (17.1, 36.2)
North East	10.9 (1.3, 53.9)	0.0 -	- -	8.7 (0.9, 48.4)	0.0 -	0.0 -	5.7 (1.8, 16.8)	0.0 -	0.0 -	4.6 (1.4, 13.7)	5.9 (1.9, 16.9)
North West	9.4 (1.7, 38.5)	0.0 -	- -	9.0 (1.6, 37.2)	0.0 -	0.0 -	2.0 (0.6, 6.2)	0.0 -	0.0 -	1.6 (0.5, 5.2)	4.2 (1.2, 13.5)
South East	70.9 (42.5, 88.9)	0.0 -	- -	67.3 (36.6, 88.0)	14.3 (3.0, 47.2)	57.4 (12.5, 92.7)	21.5 (11.5, 36.6)	0.0 -	- -	21.3 (11.9, 35.0)	26.5 (16.7, 39.4)
South South	23.2 (9.0, 47.9)	- -	- -	23.2 (9.0, 47.9)	29.7 (5.5, 75.3)	91.5 (42.1, 99.4)	31.8 (22.6, 42.6)	0.0 -	- -	32.4 (24.0, 42.0)	31.4 (23.6, 40.5)
South West	62.3 (22.8, 90.3)	- -	- -	62.3 (22.8, 90.3)	30.1 (5.3, 76.8)	70.2 (55.6, 81.6)	7.3 (2.7, 18.7)	3.8 (0.7, 17.7)	0.0 -	10.6 (4.4, 23.5)	14.7 (7.2, 27.9)
Quality Assured ACT (QAACT)											
North Central	97.3 (95.1, 98.6)	- -	50.6 (27.8, 73.1)	77.4 (47.1, 93.0)	100.0 -	100.0 -	73.4 (59.7, 83.8)	39.2 (25.0, 55.5)	- -	73.5 (56.7, 85.4)	74.5 (66.1, 81.3)
North East	77.1 (29.2, 96.5)	22.9 (1.3, 86.7)	- -	65.9 (17.7, 94.6)	84.4 (39.5, 97.8)	100.0 -	83.6 (67.1, 92.7)	21.7 (3.5, 67.6)	20.8 (11.1, 35.7)	75.4 (67.3, 82.1)	72.4 (52.6, 86.1)
North West	80.1 (52.0, 93.8)	100.0 -	- -	81.0 (53.6, 94.0)	68.6 (9.6, 97.8)	100.0 -	65.0 (46.6, 79.8)	66.8 (21.5, 93.7)	25.1 (1.6, 87.4)	63.6 (47.4, 77.2)	69.6 (54.7, 81.3)
South East	98.1 (94.3, 99.4)	100.0 -	- -	98.2 (94.6, 99.4)	54.6 (33.3, 74.4)	88.9 (55.9, 98.1)	75.1 (64.1, 83.5)	100.0 -	- -	73.9 (65.8, 80.7)	76.7 (70.2, 82.1)
South South	81.7 (40.1, 96.7)	- -	- -	81.7 (40.1, 96.7)	89.2 (65.8, 97.2)	86.2 (77.6, 91.8)	90.4 (81.1, 95.4)	100.0 -	- -	90.3 (81.9, 95.1)	89.4 (82.7, 93.8)
South West	98.3 (94.3, 99.5)	- -	- -	98.3 (94.3, 99.5)	56.9 (19.5, 87.8)	92.0 (64.5, 98.6)	67.5 (41.9, 85.6)	88.9 (71.8, 96.2)	0.0 -	69.0 (50.2, 83.1)	71.3 (52.6, 84.7)

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
QA AL											
North Central	97.1 (94.4, 98.5)	- -	50.6 (27.8, 73.1)	77.3 (47.0, 92.9)	100.0 -	100.0 -	73.4 (59.6, 83.8)	39.2 (25.0, 55.5)	- -	73.4 (56.7, 85.4)	74.4 (66.1, 81.3)
North East	77.1 (29.2, 96.5)	22.9 (1.3, 86.7)	- -	65.9 (17.7, 94.6)	84.4 (39.5, 97.8)	100.0 -	83.1 (66.8, 92.4)	21.7 (3.5, 67.6)	20.8 (11.1, 35.7)	75.1 (67.1, 81.6)	72.2 (52.5, 85.9)
North West	76.3 (46.4, 92.3)	100.0 -	- -	77.3 (48.1, 92.6)	68.6 (9.6, 97.8)	100.0 -	65.0 (46.6, 79.8)	66.8 (21.5, 93.7)	25.1 (1.6, 87.4)	63.6 (47.4, 77.2)	68.4 (52.4, 80.9)
South East	96.9 (91.9, 98.9)	100.0 -	- -	97.1 (92.5, 98.9)	52.5 (32.8, 71.5)	88.9 (55.9, 98.1)	73.5 (64.0, 81.3)	100.0 -	- -	72.4 (64.8, 78.8)	75.2 (69.2, 80.3)
South South	81.4 (40.1, 96.6)	- -	- -	81.4 (40.1, 96.6)	89.2 (65.8, 97.2)	72.3 (56.5, 84.0)	88.2 (75.9, 94.7)	100.0 -	- -	88.1 (77.2, 94.2)	87.5 (78.7, 92.9)
South West	96.3 (88.3, 98.9)	- -	- -	96.3 (88.3, 98.9)	55.9 (19.0, 87.3)	92.0 (64.5, 98.6)	67.2 (42.0, 85.3)	88.9 (71.8, 96.2)	0.0 -	68.7 (50.1, 82.7)	70.9 (52.5, 84.3)
QA ASAQ											
North Central	44.8 (24.7, 66.8)	- -	50.6 (27.8, 73.1)	47.3 (31.6, 63.4)	10.4 (0.9, 59.5)	97.2 (64.9, 99.8)	18.1 (6.7, 40.4)	0.0 -	- -	15.7 (7.0, 31.4)	23.7 (15.2, 35.1)
North East	10.9 (1.3, 53.9)	0.0 -	- -	8.6 (0.9, 48.5)	0.0 -	0.0 -	1.3 (0.3, 5.5)	0.0 -	0.0 -	1.0 (0.2, 4.2)	3.4 (0.6, 16.6)
North West	9.4 (1.7, 38.5)	0.0 -	- -	9.0 (1.6, 37.2)	0.0 -	0.0 -	0.0 -	0.0 -	0.0 -	0.0 -	3.1 (0.6, 14.4)
South East	69.8 (41.2, 88.4)	0.0 -	- -	66.3 (35.5, 87.5)	8.7 (1.3, 39.8)	24.6 (2.9, 78.1)	14.9 (6.1, 32.2)	0.0 -	- -	14.4 (6.4, 29.4)	20.3 (11.3, 33.8)
South South	20.8 (7.6, 45.6)	- -	- -	20.8 (7.6, 45.6)	29.7 (5.5, 75.3)	41.5 (23.0, 62.7)	22.2 (15.5, 30.7)	0.0 -	- -	22.8 (16.7, 30.4)	22.6 (17.0, 29.4)
South West	62.3 (22.8, 90.3)	- -	- -	62.3 (22.8, 90.3)	28.8 (4.7, 76.9)	34.3 (18.5, 54.5)	6.2 (2.1, 16.8)	3.1 (0.4, 19.0)	0.0 -	9.0 (3.4, 21.5)	13.2 (6.2, 26.0)

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Any child QAACT											
North Central	85.1 (45.5, 97.5)	- -	50.6 (27.8, 73.1)	70.4 (41.6, 88.8)	47.1 (25.2, 70.1)	97.2 (64.9, 99.8)	48.9 (31.0, 67.0)	39.2 (25.0, 55.5)	- -	48.1 (32.8, 63.7)	53.8 (43.7, 63.5)
North East	73.9 (29.2, 95.1)	0.0 -	- -	58.7 (17.2, 90.7)	76.1 (29.4, 96.0)	100.0 -	67.9 (48.9, 82.4)	21.7 (3.5, 67.6)	20.8 (11.1, 35.7)	62.4 (47.4, 75.3)	61.2 (44.4, 75.8)
North West	66.8 (36.9, 87.4)	100.0 -	- -	68.3 (39.4, 87.7)	68.6 (9.6, 97.8)	100.0 -	62.1 (45.3, 76.4)	66.8 (21.5, 93.7)	25.1 (1.6, 87.4)	61.2 (46.2, 74.4)	63.7 (50.9, 74.8)
South East	90.2 (68.7, 97.5)	100.0 -	- -	90.7 (72.3, 97.3)	28.7 (8.9, 62.4)	88.9 (55.9, 98.1)	66.3 (55.6, 75.6)	100.0 -	- -	64.0 (53.3, 73.4)	67.0 (58.0, 75.0)
South South	77.9 (39.9, 94.9)	- -	- -	77.9 (39.9, 94.9)	85.7 (54.6, 96.8)	63.8 (56.6, 70.5)	77.1 (64.9, 86.0)	0.0 -	- -	77.4 (66.5, 85.5)	77.4 (67.5, 85.0)
South West	97.2 (91.1, 99.1)	- -	- -	97.2 (91.1, 99.1)	50.3 (15.6, 84.8)	81.8 (64.9, 91.6)	61.6 (41.8, 78.2)	77.2 (48.7, 92.3)	0.0 -	62.3 (47.7, 74.9)	65.0 (50.4, 77.3)
Any adult QAACT											
North Central	83.5 (49.2, 96.4)	- -	33.5 (12.4, 64.2)	62.2 (34.2, 83.9)	15.1 (2.0, 61.1)	100.0 -	62.3 (47.7, 75.0)	8.8 (0.5, 64.8)	- -	47.4 (34.8, 60.3)	51.2 (43.3, 59.0)
North East	64.9 (27.5, 90.0)	22.9 (1.3, 86.7)	- -	56.2 (17.2, 88.8)	22.6 (4.3, 65.5)	34.2 (10.6, 69.6)	49.5 (39.7, 59.4)	0.0 -	18.4 (8.2, 36.2)	42.1 (34.3, 50.3)	46.6 (33.5, 60.2)
North West	43.6 (18.0, 73.1)	0.0 -	- -	41.7 (17.7, 70.4)	0.0 -	0.0 -	17.0 (7.1, 35.3)	13.1 (1.5, 59.6)	0.0 -	15.4 (6.7, 31.4)	24.4 (14.0, 39.2)
South East	73.0 (39.1, 91.9)	0.0 -	- -	69.3 (35.4, 90.3)	34.9 (11.4, 69.2)	77.8 (29.9, 96.6)	57.0 (44.3, 68.9)	0.0 -	- -	54.8 (42.9, 66.1)	56.4 (45.4, 66.8)
South South	44.2 (19.0, 72.8)	- -	- -	44.2 (19.0, 72.8)	39.0 (8.9, 80.6)	44.7 (20.7, 71.4)	70.9 (61.4, 78.9)	0.0 -	- -	69.1 (58.1, 78.4)	66.6 (56.3, 75.5)
South West	93.6 (83.3, 97.7)	- -	- -	93.6 (83.3, 97.7)	34.3 (7.4, 77.4)	85.3 (64.1, 95.0)	43.1 (28.8, 58.7)	69.9 (41.6, 88.3)	0.0 -	45.8 (30.4, 62.0)	49.6 (34.7, 64.5)

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Non-quality-assured ACT											
North Central	14.3 (2.7, 50.1)	- -	16.0 (1.3, 74.0)	15.0 (3.6, 45.5)	7.5 (0.6, 50.2)	100.0 -	41.5 (25.7, 59.3)	8.8 (0.5, 64.8)	- -	32.2 (18.6, 49.7)	27.8 (15.1, 45.5)
North East	3.2 (0.7, 14.6)	22.9 (1.3, 86.7)	- -	7.3 (1.3, 32.2)	8.4 (0.7, 54.3)	68.4 (9.0, 97.9)	29.9 (8.7, 65.7)	0.0 -	0.00 -	25.3 (8.0, 56.9)	19.6 (6.3, 46.8)
North West	23.0 (6.4, 56.5)	0.0 -	- -	22.0 (6.2, 54.7)	31.4 (2.2, 90.4)	100.0 -	27.1 (14.8, 44.2)	0.0 -	0.00 -	23.3 (13.4, 37.5)	22.9 (12.6, 37.8)
South East	17.1 (6.0, 39.8)	00 -	- -	16.2 (6.2, 36.0)	35.8 (10.6, 72.4)	100.0 -	45.3 (27.4, 64.5)	0.0 -	- -	44.9 (28.3, 62.8)	41.7 (27.0, 58.0)
South South	24.0 (7.3, 55.9)	- -	- -	24.0 (7.3, 55.9)	47.6 (21.9, 74.7)	100.0 -	63.5 (51.8, 73.8)	100.0 -	- -	63.2 (52.2, 73.0)	59.2 (46.2, 71.0)
South West	6.9 (2.5, 17.9)	- -	- -	6.9 (2.5, 17.9)	11.4 (3.5, 31.0)	91.4 (75.7, 97.3)	15.3 (8.6, 25.7)	53.4 (20.1, 83.8)	0.0 -	20.4 (10.7, 35.4)	19.4 (10.3, 33.3)
QAACT with the "green leaf" logo											
North Central	95.3 (89.8, 97.9)	- -	50.6 (27.8, 73.1)	76.2 (46.7, 92.1)	100.0 -	100.0 -	73.4 (59.7, 83.8)	39.2 (25.0, 55.5)	- -	73.5 (56.7, 85.4)	74.2 (65.9, 81.0)
North East	29.4 (8.3, 65.7)	0.0 -	- -	23.3 (5.8, 59.9)	36.9 (4.9, 87.0)	100.0 -	56.9 (39.3, 73.0)	21.7 (3.5, 67.6)	20.8 (11.1, 35.7)	51.7 (35.4, 67.7)	42.7 (24.7, 62.9)
North West	66.1 (34.3, 87.9)	100.0 -	- -	67.5 (36.8, 88.1)	68.6 (9.6, 97.8)	100.0 -	65.0 (46.6, 79.8)	66.8 (21.5, 93.7)	25.1 (1.6, 87.4)	63.6 (47.4, 77.2)	65.0 (48.5, 78.5)
South East	65.2 (26.1, 90.9)	100.0 -	- -	67.0 (27.7, 91.5)	46.9 (28.7, 65.9)	88.9 (55.9, 98.1)	72.1 (58.8, 82.5)	0.0 -	- -	69.3 (58.7, 78.2)	69.1 (57.8, 78.4)
South South	65.7 (30.4, 89.4)	- -	- -	65.7 (30.4, 89.4)	89.2 (65.8, 97.2)	58.5 (37.3, 77.0)	88.7 (80.3, 93.8)	100.0 -	- -	88.4 (80.8, 93.3)	86.1 (80.9, 90.0)
South West	96.7 (91.3, 98.8)	- -	- -	96.7 (91.3, 98.8)	56.9 (19.5, 87.8)	92.0 (64.5, 98.6)	64.8 (42.3, 82.3)	88.7 (71.6, 96.0)	0.0 -	67.0 (49.3, 80.9)	69.3 (51.9, 82.5)

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Any non-artemisinin therapy											
North Central	82.5 (37.5, 97.4)	- -	82.9 (24.3, 98.7)	82.7 (47.8, 96.1)	80.8 (24.0, 98.3)	100.0 -	98.7 (94.4, 99.7)	100.0 -	- -	95.9 (84.0, 99.0)	92.5 (81.3, 97.2)
North East	47.8 (16.5, 80.9)	100.0 -	- -	58.6 (33.8, 79.6)	38.2 (8.6, 80.2)	100.0 -	97.3 (81.2, 99.7)	100.0 -	100.0 -	94.9 (74.4, 99.2)	83.4 (66.7, 92.6)
North West	63.3 (27.4, 88.7)	100.0 -	- -	64.9 (29.1, 89.3)	100.0 -	100.0 -	100.0 -	86.9 (40.4, 98.5)	74.9 (12.6, 98.4)	97.2 (89.0, 99.3)	86.0 (64.5, 95.4)
South East	43.5 (16.1, 75.6)	100.0 -	- -	46.4 (17.7, 77.7)	76.1 (42.5, 93.2)	100.0 -	97.8 (85.8, 99.7)	100.0 -	- -	96.0 (88.2, 98.7)	90.3 (81.3, 95.3)
South South	59.4 (30.7, 82.8)	- -	- -	59.4 (30.7, 82.8)	78.8 (25.1, 97.6)	91.5 (42.1, 99.4)	97.1 (91.0, 99.1)	100.0 -	- -	96.2 (87.8, 98.9)	92.4 (83.2, 96.8)
South West	22.1 (8.6, 46.2)	- -	- -	22.1 (8.6, 46.2)	96.8 (89.1, 99.1)	96.7 (84.5, 99.4)	98.8 (96.5, 99.6)	97.3 (89.8, 99.3)	100.0 -	98.3 (95.7, 99.4)	92.3 (82.2, 96.9)
Chloroquine											
North Central	3.5 (1.4, 8.7)	- -	33.5 (12.4, 64.2)	16.3 (3.6, 50.2)	80.8 (24.0, 98.3)	100.0 -	96.0 (83.8, 99.1)	100.0 -	- -	94.1 (83.2, 98.1)	74.2 (66.8, 80.4)
North East	5.6 (1.3, 21.3)	100.0 -	- -	25.1 (8.9, 53.5)	23.9 (4.0, 70.6)	100.0 -	92.4 (81.2, 97.2)	58.8 (9.7, 95.0)	57.6 (21.6, 87.0)	84.7 (70.8, 92.7)	65.8 (50.9, 78.2)
North West	52.2 (23.1, 79.8)	100.0 -	- -	54.2 (25.4, 80.5)	100.0 -	100.0 -	99.7 (98.5, 100.0)	77.4 (32.3, 96.1)	74.9 (12.6, 98.4)	95.8 (88.3, 98.6)	81.5 (62.9, 91.9)
South East	13.3 (3.8, 37.0)	100.0 -	- -	17.6 (4.5, 49.1)	45.0 (18.2, 75.1)	88.9 (55.9, 98.1)	88.6 (77.6, 94.6)	100.0 -	- -	85.0 (75.6, 91.2)	77.4 (67.2, 85.1)
South South	21.8 (4.1, 64.5)	- -	- -	21.8 (4.1, 64.5)	51.9 (13.4, 88.2)	63.8 (56.6, 70.5)	86.9 (78.8, 92.2)	100.0 -	- -	85.1 (76.2, 91.1)	78.6 (71.6, 84.2)
South West	1.9 (0.7, 4.7)	- -	- -	1.9 (0.7, 4.7)	73.2 (31.3, 94.3)	93.3 (71.3, 98.7)	87.4 (76.6, 93.6)	79.4 (58.6, 91.3)	100.0 -	84.7 (76.4, 90.4)	78.1 (66.4, 86.6)

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Sulfadoxine-Pyrimethamine											
North Central	76.9 (35.7, 95.2)	- -	33.5 (12.4, 64.2)	58.4 (30.4, 81.8)	12.1 (1.7, 53.0)	100.0 -	74.6 (55.0, 87.6)	39.2 (25.0, 55.5)	- -	59.4 (45.9, 71.7)	59.2 (46.8, 70.5)
North East	44.8 (14.8, 79.1)	77.1 (13.3, 98.7)	- -	51.4 (27.9, 74.4)	22.6 (4.3, 65.5)	65.8 (30.4, 89.4)	76.6 (56.3, 89.2)	56.2 (11.8, 92.5)	42.4 (13.0, 78.4)	70.7 (54.1, 83.1)	64.6 (46.8, 79.1)
North West	44.4 (18.0, 74.4)	100.0 -	- -	46.8 (19.9, 75.7)	100.0 -	100.0 -	56.4 (38.3, 73.0)	20.1 (2.7, 69.5)	0.0 -	50.0 (32.7, 67.2)	48.9 (33.0, 65.0)
South East	35.8 (11.8, 69.9)	100.0 -	- -	39.1 (13.5, 72.5)	26.2 (7.9, 59.8)	100.0 -	84.7 (73.3, 91.8)	0.0 -	- -	78.9 (66.9, 87.3)	74.3 (64.6, 82.2)
South South	52.9 (24.8, 79.3)	- -	- -	52.9 (24.8, 79.3)	72.2 (25.4, 95.2)	63.8 (56.6, 70.5)	87.6 (81.2, 92.0)	100.0 -	- -	86.7 (79.9, 91.4)	83.2 (75.7, 88.7)
South West	21.4 (8.1, 45.6)	- -	- -	21.4 (8.1, 45.6)	34.3 (7.4, 77.3)	88.3 (73.6, 95.3)	80.0 (68.7, 88.0)	85.4 (67.0, 94.4)	100.0 -	75.3 (64.2, 83.8)	71.0 (58.4, 81.0)
Any artemisinin monotherapy											
North Central	57.9 (35.7, 77.4)	- -	0.0 -	33.3 (12.6, 63.2)	55.7 (32.2, 77.0)	100.0 -	31.2 (14.7, 54.2)	30.4 (23.2, 38.8)	- -	36.5 (24.4, 50.5)	35.6 (27.4, 44.9)
North East	32.9 (8.3, 72.7)	0.0 -	- -	26.1 (9.7, 53.8)	83.9 (38.4, 97.8)	68.4 (9.0, 97.9)	48.9 (33.3, 64.7)	0.0 -	0.0 -	44.2 (31.1, 58.1)	38.4 (26.4, 52.1)
North West	47.4 (19.9, 76.6)	50.0 -	- -	47.5 (20.9, 75.6)	100.0 -	100.0 -	50.1 (32.3, 67.9)	0.0 -	0.0 -	42.4 (25.9, 60.8)	44.2 (28.3, 61.2)
South East	47.0 (17.5, 78.7)	0.0 -	- -	44.6 (17.3, 75.5)	49.9 (31.0, 68.8)	100.0 -	28.2 (14.5, 47.7)	0.0 -	- -	31.1 (17.1, 49.7)	32.6 (19.9, 48.6)
South West	35.2 (14.0, 64.5)	- -	- -	35.2 (14.0, 64.5)	51.6 (25.4, 77.0)	86.2 (77.6, 91.8)	50.9 (39.2, 62.5)	100.0 -	- -	51.3 (40.0, 62.6)	49.7 (38.5, 60.9)
South South	14.9 (4.9, 37.4)	- -	- -	14.9 (4.9, 37.4)	60.7 (21.5, 89.7)	91.4 (75.7, 97.3)	20.8 (10.3, 37.4)	54.5 (21.3, 84.2)	0.0 -	30.6 (17.0, 48.7)	29.4 (16.4, 46.9)

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Oral artemisinin monotherapy											
North Central	9.8 (1.2, 49.6)	- -	0.0 -	5.6 (0.7, 32.8)	0.0 -	100.0 -	29.3 (13.2, 53.0)	30.4 (23.2, 38.8)	- -	25.8 (14.2, 42.2)	20.7 (12.7, 31.7)
North East	2.5 (0.4, 15.6)	0.0 -	- -	2.0 (0.3, 13.3)	0.0 -	34.2 (10.6, 69.6)	13.9 (5.5, 31.2)	0.0 -	0.0 -	11.6 (4.7, 26.0)	8.6 (3.2, 21.2)
North West	0.2 (0.1, 0.7)	0.0 -	- -	0.2 (0.1, 0.6)	100.0 -	100.0 -	14.3 (5.8, 31.1)	0.0 -	0.0 -	13.3 (5.7, 27.9)	8.8 (3.7, 19.5)
South East	6.5 (1.1, 30.4)	0.0 -	- -	6.2 (1.2, 26.8)	33.9 (17.3, 55.7)	88.9 (55.9, 98.1)	25.3 (13.0, 43.3)	0.0 -	- -	26.9 (15.0, 43.4)	24.6 (13.7, 40.0)
South South	6.0 (1.8, 18.0)	- -	- -	6.0 (1.8, 18.0)	37.3 (17.9, 61.8)	86.2 (77.6, 91.8)	50.1 (38.9, 61.2)	100.0 -	- -	49.9 (39.2, 60.7)	45.4 (34.7, 56.5)
South West	2.2 (0.6, 7.8)	- -	- -	2.2 (0.6, 7.8)	1.9 (0.5, 7.1)	88.1 (77.9, 93.9)	16.4 (9.2, 27.6)	54.5 (21.3, 84.2)	0.0 -	20.2 (10.7, 34.9)	18.8 (10.0, 32.4)
Non-oral artemisinin monotherapy											
North Central	57.1 (35.1, 76.5)	- -	0.0 -	32.8 (12.3, 62.8)	55.7 (32.2, 77.0)	100.0 -	5.6 (1.5, 18.9)	0.0 -	- -	14.9 (7.4, 27.8)	19.5 (14.1, 26.4)
North East	30.6 (7.0, 72.0)	0.0 -	- -	24.3 (8.2, 53.4)	83.9 (38.4, 97.8)	68.4 (9.0, 97.9)	42.4 (28.0, 58.2)	0.0 -	0.0 -	38.9 (26.0, 53.6)	34.3 (23.0, 47.6)
North West	47.4 (19.9, 76.5)	50.0 -	- -	47.5 (20.9, 75.6)	31.4 (2.2, 90.4)	100.0 -	46.2 (29.3, 63.9)	0.0 -	0.0 -	38.8 (22.9, 57.6)	41.8 (26.3, 59.1)
South East	41.3 (14.1, 75.1)	0.0 -	- -	39.3 (13.3, 73.1)	32.5 (9.1, 70.0)	79.6 (45.9, 94.7)	7.1 (1.8, 24.1)	0.0 -	- -	10.6 (3.9, 25.5)	13.9 (6.9, 25.8)
South South	34.1 (13.1, 64.0)	- -	- -	34.1 (13.1, 64.0)	28.6 (6.4, 70.1)	36.2 (29.5, 43.4)	3.8 (1.6, 8.8)	0.0 -	- -	5.2 (2.8, 9.6)	8.2 (5.4, 12.3)
South West	14.4 (4.8, 36.3)	- -	- -	14.4 (4.8, 36.3)	60.5 (21.4, 89.6)	51.0 (32.6, 69.2)	4.4 (0.5, 29.0)	0.0 -	0.0 -	11.4 (3.6, 30.8)	11.6 (4.0, 29.3)

Table B2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Artemether IV/IM											
North Central	56.7 (34.9, 76.2)	- -	0.0 -	32.6 (12.2, 62.6)	55.7 (32.2, 77.0)	100.0 -	5.6 (1.5, 18.9)	0.0 -	- -	14.9 (7.4, 27.8)	19.5 (14.0, 26.3)
North East	28.8 (6.2, 71.3)	0.0 -	- -	22.8 (7.2, 52.8)	76.1 (29.4, 96.0)	68.4 (9.0, 97.9)	42.4 (28.0, 58.2)	0.0 -	0.0 -	38.5 (25.6, 53.3)	33.6 (22.6, 46.7)
North West	47.4 (19.9, 76.5)	50.0 -	- -	47.5 (20.9, 75.6)	31.4 (2.2, 90.4)	100.0 -	46.2 (29.3, 63.9)	0.0 -	0.0 -	38.8 (22.9, 57.6)	41.8 (26.3, 59.1)
South East	20.8 (4.9, 57.3)	0.0 -	- -	19.8 (4.6, 55.5)	16.8 (3.8, 51.2)	45.1 (11.7, 83.6)	7.1 (1.8, 24.1)	0.0 -	- -	8.6 (2.9, 22.9)	9.8 (4.0, 22.1)
South South	31.7 (11.5, 62.6)	- -	- -	31.7 (11.5, 62.6)	28.6 (6.4, 70.1)	36.2 (29.5, 43.4)	3.8 (1.6, 8.8)	0.0 -	- -	5.2 (2.8, 9.6)	8.0 (5.2, 12.1)
South West	13.8 (4.5, 35.4)	- -	- -	13.8 (4.5, 35.4)	58.5 (20.4, 88.5)	47.7 (27.8, 68.4)	4.4 (0.5, 29.0)	0.0 -	0.0 -	11.1 (3.4, 30.7)	11.3 (3.8, 29.2)
Any treatment for severe malaria											
North Central	57.9 (35.6, 77.4)	- -	16.0 (1.3, 73.9)	40.0 (16.0, 70.0)	60.1 (34.6, 81.0)	100.0 -	5.6 (1.5, 18.9)	0.0 -	- -	15.7 (8.0, 28.3)	21.9 (16.1, 29.0)
North East	30.8 (7.2, 72.0)	0.0 -	- -	24.5 (8.4, 53.4)	92.3 (48.0, 99.4)	68.4 (9.0, 97.9)	51.5 (40.4, 62.4)	0.0 -	0.0 -	46.6 (36.1, 57.5)	39.6 (29.6, 50.6)
North West	47.4 (20.0, 76.5)	50.0 -	- -	47.5 (20.9, 75.6)	31.4 (2.2, 90.4)	100.0 -	46.2 (29.3, 63.9)	0.0 -	0.0 -	38.8 (22.9, 57.6)	41.8 (26.4, 59.1)
South East	42.9 (15.0, 76.1)	0.0 -	- -	40.7 (14.2, 74.1)	35.6 (7.2, 79.8)	79.6 (45.9, 94.7)	7.1 (1.8, 24.1)	0.0 -	- -	10.9 (4.1, 25.9)	14.3 (7.1, 26.4)
South South	35.1 (13.8, 64.6)	- -	- -	35.1 (13.8, 64.6)	28.6 (6.4, 70.1)	36.2 (29.5, 43.4)	3.8 (1.6, 8.8)	0.0 -	- -	5.2 (2.8, 9.6)	8.3 (5.4, 12.6)
South West	14.5 (4.8, 36.4)	- -	- -	14.5 (4.8, 36.4)	59.9 (21.1, 89.3)	51.0 (32.6, 69.2)	4.4 (0.5, 29.0)	0.0 -	0.0 -	11.3 (3.5, 30.8)	11.6 (4.0, 29.3)

Table B3: Antimalarial market composition, across Geo-political Zones

Outlet type, among outlets with at least 1 antimalarial in stock on the day of the survey:*	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
	%	%	%	%	%	%	%	%	%	%
North Central, N=202	13.0 (5.2, 28.9)	0.0 -	11.1 (3.1, 32.9)	24.1 (15.0, 36.4)	12.7 (4.5, 31.1)	1.4 (0.2, 9.6)	50.8 (30.4, 80.0)	10.9 (2.0, 42.1)	0 -	75.9 (63.6, 85.0)
North East, N=225	24.0 (13.6, 38.8)	6.6 (1.2, 29.4)	0.0 -	30.7 (14.6, 53.3)	3.2 (1.0, 9.5)	0.8 (0.2, 4.0)	56.0 (38.6, 72.1)	6.8 (2.8, 15.6)	2.5 (0.5, 11.2)	69.3 (46.8, 85.4)
North West, N=206	31.4 (17.6, 49.5)	1.5 (0.2, 11.4)	0.0 -	32.9 (19.0, 50.7)	0.4 (0.1, 1.8)	0.8 (0.1, 5.9)	54.5 (37.8, 70.3)	8.0 (2.2, 25.2)	3.4 (0.7, 15.3)	67.1 (49.3, 81.0)
South East, N=228	8.2 (3.5, 18.0)	0.6 (0.1, 4.6)	0.0 -	8.8 (3.9, 18.8)	7.9 (3.5, 17.0)	1.8 (0.6, 5.5)	80.3 (70.5, 87.4)	1.2 (0.1, 9.6)	0.0 -	91.2 (81.3, 96.1)
South South, N=299	9.3 (4.6, 17.7)	0.0 -	0.0 -	9.3 (4.6, 17.8)	4.1 (1.8, 8.9)	0.9 (0.1, 5.2)	85.6 (79.2, 90.3)	0.1 (0.0, 1.2)	0.0 -	90.7 (82.3, 95.4)
South West, N=554	5.6 (1.6, 17.4)	0.0 -	0.0 -	5.6 (1.6, 17.4)	11.5 (5.9, 21.2)	1.4 (0.5, 3.8)	70.3 (54.0, 82.7)	11.1 (3.7, 28.6)	0.1 (0.0, 1.1)	94.4 (82.6, 98.4)

* Excluding booster sample outlets. Outlets with at least one antimalarial in stock on the day of the survey, verified by presence of at least one antimalarial recorded in the antimalarial audit sheet.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Any ACT										
North Central	\$0.00 [0.00-0.00] ⁽⁴²⁶⁾	- -	\$1.25 [0.94-2.19] ⁽⁷⁾	\$0.00 [0.00-1.25] ⁽⁴³³⁾	\$2.50 [1.25-2.50] ⁽¹¹⁾	\$1.87 [1.75-4.06] ⁽⁴³⁾	\$1.56 [1.25-2.50] ⁽¹⁸⁴⁾	\$1.67 [1.67-5.00] ⁽⁵⁾	- -	\$1.67 [1.25-2.50] ⁽²⁴³⁾
North East	\$0.00 [0.00-0.00] ⁽²⁹⁸⁾	\$0.00 [0.00-0.00] ⁽³⁾	- -	\$0.00 [0.00-0.00] ⁽³⁰¹⁾	\$1.75 [1.00-1.87] ⁽⁶⁾	\$3.12 [2.50-3.75] ⁽¹³⁾	\$1.25 [1.04-2.19] ⁽²²²⁾	\$1.25 [1.25-1.50] ⁽⁴⁾	\$14.99 [14.99-29.98] ⁽⁴⁾	\$1.50 [1.06-2.50] ⁽²⁴⁹⁾
North West	\$0.00 [0.00-0.00] ⁽²⁰⁶⁾	\$1.12 [1.00-1.25] ⁽²⁾	- -	\$0.00 [0.00-0.00] ⁽²⁰⁸⁾	\$6.50 [6.50-26.23] ⁽²⁾	\$2.03 [1.62-3.01] ⁽⁸⁾	\$1.25 [1.12-2.50] ⁽¹⁷⁵⁾	\$0.62 [0.62-1.33] ⁽⁵⁾	\$1.25 ⁽¹⁾	\$1.25 [1.12-2.50] ⁽¹⁹¹⁾
South East	\$0.00 [0.00-0.00] ⁽⁴⁴²⁾	\$2.50 ⁽¹⁾	- -	\$0.00 [0.00-0.00] ⁽⁴⁴³⁾	\$1.87 [1.56-4.37] ⁽¹⁶⁾	\$3.37 [2.19-4.50] ⁽⁶²⁾	\$2.19 [1.56-3.25] ⁽⁴¹⁴⁾	\$13.12 [3.75-22.49] ⁽²⁾	- -	\$2.19 [1.56-3.75] ⁽⁴⁹⁴⁾
South South	\$0.00 [0.00-0.00] ⁽²⁴⁸⁾	- -	- -	\$0.00 [0.00-0.00] ⁽²⁴⁸⁾	\$3.75 [3.12-5.27] ⁽²¹⁾	\$5.00 [3.86-6.25] ⁽⁷⁹⁾	\$2.50 [1.87-4.37] ⁽⁸³¹⁾	\$3.63 [1.87-5.00] ⁽⁶⁾	- -	\$2.81 [1.87-4.37] ⁽⁹³⁷⁾
South West	\$0.00 [0.00-0.00] ⁽⁷⁴¹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁷⁴¹⁾	\$2.50 [1.56-3.75] ⁽⁴⁹⁾	\$3.12 [2.08-4.37] ⁽³⁴⁷⁾	\$2.08 [1.56-3.12] ⁽⁹⁶¹⁾	\$3.44 [2.50-5.31] ⁽¹⁶²⁾	- -	\$2.50 [1.56-3.75] ^(1,519)
Artemether Lumefantrine (AL)										
North Central	\$0.00 [0.00-0.00] ⁽²⁷⁹⁾	- -	\$1.25 [1.25-1.87] ⁽⁴⁾	\$0.00 [0.00-1.25] ⁽²⁸³⁾	\$2.50 [1.25-2.50] ⁽⁷⁾	\$1.87 [1.75-3.44] ⁽²⁵⁾	\$1.56 [1.25-2.50] ⁽¹⁵⁹⁾	\$1.67 [1.67-5.00] ⁽⁵⁾	- -	\$1.56 [1.25-2.50] ⁽¹⁹⁶⁾
North East	\$0.00 [0.00-0.00] ⁽²⁷⁸⁾	\$0.00 [0.00-0.00] ⁽³⁾	- -	\$0.00 [0.00-0.00] ⁽²⁸¹⁾	\$1.75 [1.00-1.87] ⁽⁶⁾	\$3.12 [1.87-3.75] ⁽¹⁰⁾	\$1.25 [1.00-2.00] ⁽²¹⁶⁾	\$1.25 [1.25-1.50] ⁽⁴⁾	\$14.99 [14.99-29.98] ⁽⁴⁾	\$1.50 [1.06-2.19] ⁽²⁴⁰⁾
North West	\$0.00 [0.00-0.00] ⁽¹⁸⁶⁾	\$1.12 [1.00-1.25] ⁽²⁾	- -	\$0.00 [0.00-0.00] ⁽¹⁸⁸⁾	\$6.50 [6.50-26.23] ⁽²⁾	\$1.87 [1.50-2.50] ⁽⁷⁾	\$1.25 [1.00-1.87] ⁽¹⁵⁷⁾	\$0.62 [0.62-1.33] ⁽⁵⁾	\$1.25 ⁽¹⁾	\$1.25 [1.00-1.87] ⁽¹⁷²⁾
South East	\$0.00 [0.00-0.00] ⁽³⁴⁹⁾	\$2.50 ⁽¹⁾	- -	\$0.00 [0.00-0.00] ⁽³⁵⁰⁾	\$1.87 [1.56-4.37] ⁽¹⁴⁾	\$3.75 [2.50-4.50] ⁽⁴²⁾	\$2.19 [1.56-3.75] ⁽³¹⁶⁾	\$13.12 [3.75-22.49] ⁽²⁾	- -	\$2.19 [1.56-3.75] ⁽³⁷⁴⁾
South South	\$0.00 [0.00-0.00] ⁽¹⁹¹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹⁹¹⁾	\$3.75 [3.12-5.62] ⁽¹⁵⁾	\$5.00 [4.37-5.93] ⁽⁴⁷⁾	\$2.50 [1.87-4.37] ⁽⁶⁵⁴⁾	\$2.81 [1.56-4.37] ⁽⁴⁾	- -	\$2.81 [1.87-4.50] ⁽⁷²⁰⁾
South West	\$0.00 [0.00-0.00] ⁽⁵³¹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁵³¹⁾	\$1.56 [1.56-2.50] ⁽³⁹⁾	\$3.12 [1.87-4.25] ⁽²⁴²⁾	\$2.00 [1.50-3.00] ⁽⁸⁵⁰⁾	\$3.33 [2.50-5.31] ⁽¹⁵¹⁾	- -	\$2.50 [1.56-3.44] ^(1,282)

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Artesunate Amodiaquine (ASAQ)										
North Central	\$0.00 [0.00-0.00] ⁽¹⁴²⁾	- -	\$0.94 [0.94-7.50] ⁽³⁾	\$0.00 [0.00-0.94] ⁽¹⁴⁵⁾	\$1.87 [1.09-2.50] ⁽⁴⁾	\$1.75 [1.25-1.75] ⁽⁸⁾	\$2.50 [1.56-3.75] ⁽¹⁸⁾	- -	- -	\$2.19 [1.56-2.50] ⁽³⁰⁾
North East	\$0.00 [0.00-0.00] ⁽¹⁷⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹⁷⁾	- -	- -	\$1.25 [1.25-2.50] ⁽²⁾	- -	- -	\$1.25 [1.25-2.50] ⁽²⁾
North West	\$0.00 [0.00-1.25] ⁽¹⁷⁾	- -	- -	\$0.00 [0.00-1.25] ⁽¹⁷⁾	- -	- -	\$2.81 [2.81-5.62] ⁽²⁾	- -	- -	\$2.81 [2.81-5.62] ⁽²⁾
South East	\$0.00 [0.00-0.00] ⁽⁸⁷⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁸⁷⁾	\$1.87 [0.47-1.87] ⁽²⁾	\$0.94 [0.75-1.00] ⁽⁶⁾	\$1.87 [1.25-3.75] ⁽⁴³⁾	- -	- -	\$1.87 [1.25-3.00] ⁽⁵¹⁾
South South	\$0.00 [0.00-0.00] ⁽⁵¹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁵¹⁾	\$3.12 [3.12-3.12] ⁽³⁾	\$3.75 [3.12-7.50] ⁽¹¹⁾	\$3.12 [1.87-5.00] ⁽⁶⁵⁾	\$5.00 ⁽¹⁾	- -	\$3.12 [1.87-5.00] ⁽⁸⁰⁾
South West	\$0.00 [0.00-0.00] ⁽²⁰³⁾	- -	- -	\$0.00 [0.00-0.00] ⁽²⁰³⁾	\$4.37 [2.50-7.50] ⁽⁹⁾	\$3.12 [2.50-4.50] ⁽⁴⁶⁾	\$3.75 [1.50-7.50] ⁽⁶⁵⁾	\$1.12 ⁽¹⁾	- -	\$3.75 [2.50-7.50] ⁽¹²¹⁾
Dihydroartemisinin Piperazine (DHA PPQ)										
North Central	\$3.51 [3.51-4.57] ⁽⁴⁾	- -	- -	\$3.51 [3.51-4.57] ⁽⁴⁾	- -	\$4.39 [4.39-4.39] ⁽⁴⁾	\$3.51 [3.51-3.51] ⁽⁷⁾	- -	- -	\$4.39 [3.51-4.39] ⁽¹¹⁾
North East	\$2.50 [2.50-2.50] ⁽³⁾	- -	- -	\$2.50 [2.50-2.50] ⁽³⁾	- -	\$3.01 [2.50-3.51] ⁽²⁾	\$3.86 [3.86-4.57] ⁽⁴⁾	- -	- -	\$3.86 [3.51-3.86] ⁽⁶⁾
North West	\$0.00 [0.00-0.00] ⁽³⁾	- -	- -	\$0.00 [0.00-0.00] ⁽³⁾	- -	\$3.51 ⁽¹⁾	\$3.51 [3.16-4.57] ⁽¹⁵⁾	- -	- -	\$3.51 [3.16-4.57] ⁽¹⁶⁾
South East	\$3.16 [1.87-3.16] ⁽⁵⁾	- -	- -	\$3.16 [1.87-3.16] ⁽⁵⁾	- -	\$3.37 [2.19-3.51] ⁽¹¹⁾	\$2.19 [2.19-2.50] ⁽⁴⁸⁾	- -	- -	\$2.19 [2.19-2.67] ⁽⁵⁹⁾
South South	\$3.65 [3.51-3.65] ⁽²⁾	- -	- -	\$3.65 [3.51-3.65] ⁽²⁾	\$4.22 [4.22-4.22] ⁽³⁾	\$4.22 [3.51-7.73] ⁽¹⁵⁾	\$2.50 [2.19-3.51] ⁽¹⁰²⁾	\$3.51 ⁽¹⁾	- -	\$2.50 [2.19-3.51] ⁽¹²¹⁾
South West	\$0.00 [0.00-3.37] ⁽³⁾	- -	- -	\$0.00 [0.00-3.37] ⁽³⁾	- -	\$3.37 [2.50-3.51] ⁽³⁹⁾	\$3.51 [3.16-4.22] ⁽⁴³⁾	\$4.92 [4.92-4.92] ⁽⁹⁾	- -	\$4.22 [3.37-4.92] ⁽⁹¹⁾

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Quality assured ACT (QAACT)										
North Central	\$0.00 [0.00-0.00] ⁽⁴⁰³⁾	- -	\$1.25 [0.94-1.87] ⁽⁶⁾	\$0.00 [0.00-0.94] ⁽⁴⁰³⁾	\$2.50 [1.25-2.50] ⁽¹⁰⁾	\$1.75 [1.56-1.87] ⁽¹⁵⁾	\$1.56 [1.25-2.50] ⁽¹⁵⁸⁾	\$1.67 [1.67-5.00] ⁽⁵⁾	- -	\$1.67 [1.25-2.50] ⁽¹⁸⁸⁾
North East	\$0.00 [0.00-0.00] ⁽²⁷²⁾	\$0.00 [0.00-0.00] ⁽²⁾	- -	\$0.00 [0.00-0.00] ⁽²⁷⁴⁾	\$1.75 [1.00-1.87] ⁽⁶⁾	\$2.50 [1.87-3.00] ⁽⁵⁾	\$1.25 [1.00-1.87] ⁽¹⁹⁰⁾	\$1.25 [1.25-1.50] ⁽⁴⁾	\$14.99 [14.99-29.98] ⁽⁴⁾	\$1.25 [1.00-1.87] ⁽²⁰⁹⁾
North West	\$0.00 [0.00-0.00] ⁽¹⁹²⁾	\$1.12 [1.00-1.25] ⁽²⁾	- -	\$0.00 [0.00-0.62] ⁽¹⁹⁴⁾	\$6.50 ⁽¹⁾	\$1.81 [1.62-2.19] ⁽⁴⁾	\$1.25 [1.00-1.75] ⁽¹³¹⁾	\$0.62 [0.62-1.33] ⁽⁵⁾	\$1.25 ⁽¹⁾	\$1.25 [1.00-1.75] ⁽¹⁴²⁾
South East	\$0.00 [0.00-0.00] ⁽⁴⁰⁷⁾	\$2.50 ⁽¹⁾	- -	\$0.00 [0.00-0.00] ⁽⁴⁰⁸⁾	\$1.87 [1.00-1.87] ⁽¹²⁾	\$1.56 [0.94-4.50] ⁽¹⁹⁾	\$1.87 [1.50-3.12] ⁽²⁸⁸⁾	\$13.12 [3.75-22.49] ⁽²⁾	- -	\$1.87 [1.50-3.12] ⁽³²¹⁾
South South	\$0.00 [0.00-0.00] ⁽²¹²⁾	- -	- -	\$0.00 [0.00-0.00] ⁽²¹²⁾	\$3.12 [3.12-6.25] ⁽¹²⁾	\$6.25 [3.12-7.50] ⁽¹⁹⁾	\$2.50 [1.87-3.75] ⁽⁵³²⁾	\$2.81 [1.56-4.37] ⁽⁴⁾	- -	\$2.50 [1.87-3.75] ⁽⁵⁶⁷⁾
South West	\$0.00 [0.00-0.00] ⁽⁷⁰⁸⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁷⁰⁸⁾	\$2.50 [1.56-3.00] ⁽³⁶⁾	\$2.00 [1.44-3.12] ⁽¹⁵⁵⁾	\$1.87 [1.50-2.81] ⁽⁷⁸⁴⁾	\$2.50 [2.50-3.75] ⁽¹²⁸⁾	- -	\$2.50 [1.56-3.33] ^(1,103)
QA AL										
North Central	\$0.00 [0.00-0.00] ⁽²⁶⁴⁾	- -	\$1.25 [1.25-1.87] ⁽³⁾	\$0.00 [0.00-1.25] ⁽²⁶⁷⁾	\$2.50 [1.25-2.50] ⁽⁶⁾	\$1.87 [1.75-2.50] ⁽¹⁰⁾	\$1.56 [1.25-2.50] ⁽¹⁴¹⁾	\$1.67 [1.67-5.00] ⁽⁵⁾	- -	\$1.56 [1.25-2.50] ⁽¹⁶²⁾
North East	\$0.00 [0.00-0.00] ⁽²⁵⁵⁾	\$0.00 [0.00-0.00] ⁽²⁾	- -	\$0.00 [0.00-0.00] ⁽²⁵⁷⁾	\$1.75 [1.00-1.87] ⁽⁶⁾	\$2.50 [1.87-3.00] ⁽⁵⁾	\$1.25 [1.00-1.87] ⁽¹⁸⁸⁾	\$1.25 [1.25-1.50] ⁽⁴⁾	\$14.99 [14.99-29.98] ⁽⁴⁾	\$1.25 [1.00-1.87] ⁽²⁰⁷⁾
North West	\$0.00 [0.00-0.00] ⁽¹⁷⁵⁾	\$1.12 [1.00-1.25] ⁽²⁾	- -	\$0.00 [0.00-0.42] ⁽¹⁷⁷⁾	\$6.50 ⁽¹⁾	\$1.81 [1.62-2.19] ⁽⁴⁾	\$1.25 [1.00-1.75] ⁽¹³¹⁾	\$0.62 [0.62-1.33] ⁽⁵⁾	\$1.25 ⁽¹⁾	\$1.25 [1.00-1.75] ⁽¹⁴²⁾
South East	\$0.00 [0.00-0.00] ⁽³²⁷⁾	\$2.50 ⁽¹⁾	- -	\$0.00 [0.00-0.00] ⁽³²⁸⁾	\$1.87 [1.00-1.87] ⁽¹¹⁾	\$4.50 [1.56-5.00] ⁽¹³⁾	\$1.87 [1.56-3.12] ⁽²⁵⁴⁾	\$13.12 [3.75-22.49] ⁽²⁾	- -	\$1.87 [1.56-3.12] ⁽²⁸⁰⁾
South South	\$0.00 [0.00-0.00] ⁽¹⁶⁶⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹⁶⁶⁾	\$3.12 [3.12-6.25] ⁽⁹⁾	\$3.75 [2.50-7.50] ⁽¹⁵⁾	\$2.50 [1.87-3.75] ⁽⁴⁸¹⁾	\$1.87 [1.25-3.75] ⁽³⁾	- -	\$2.50 [1.87-3.75] ⁽⁵⁰⁸⁾
South West	\$0.00 [0.00-0.00] ⁽⁵¹⁰⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁵¹⁰⁾	\$1.56 [1.56-2.50] ⁽²⁸⁾	\$1.87 [1.50-2.50] ⁽¹³¹⁾	\$1.87 [1.50-2.75] ⁽⁷³⁰⁾	\$2.50 [2.50-3.75] ⁽¹²⁷⁾	- -	\$2.50 [1.56-3.12] ^(1,016)

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
QA ASAQ										
North Central	\$0.00 [0.00-0.00] ⁽¹³⁹⁾	-	\$0.94 [0.94-7.50] ⁽³⁾	\$0.00 [0.00-0.94] ⁽¹⁴²⁾	\$1.87 [1.09-2.50] ⁽⁴⁾	\$1.75 [1.25-1.75] ⁽⁵⁾	\$2.50 [1.56-3.75] ⁽¹⁷⁾	-	-	\$2.19 [1.56-2.50] ⁽²⁶⁾
North East	\$0.00 [0.00-0.00] ⁽¹⁷⁾	-	-	\$0.00 [0.00-0.00] ⁽¹⁷⁾	-	-	\$1.25 [1.25-2.50] ⁽²⁾	-	-	\$1.25 [1.25-2.50] ⁽²⁾
North West	\$0.00 [0.00-1.25] ⁽¹⁷⁾	-	-	\$0.00 [0.00-1.25] ⁽¹⁷⁾	-	-	-	-	-	-
South East	\$0.00 [0.00-0.00] ⁽⁸⁰⁾	-	-	\$0.00 [0.00-0.00] ⁽⁸⁰⁾	\$1.87 ⁽¹⁾	\$0.94 [0.75-1.00] ⁽⁶⁾	\$1.87 [1.25-3.00] ⁽³⁴⁾	-	-	\$1.87 [1.25-2.81] ⁽⁴¹⁾
South South	\$0.00 [0.00-0.00] ⁽⁴⁶⁾	-	-	\$0.00 [0.00-0.00] ⁽⁴⁶⁾	\$3.12 [3.12-3.12] ⁽³⁾	\$8.12 [6.62-8.74] ⁽⁴⁾	\$2.50 [1.87-5.00] ⁽⁵¹⁾	\$5.00 ⁽¹⁾	-	\$2.50 [1.87-5.00] ⁽⁵⁹⁾
South West	\$0.00 [0.00-0.00] ⁽¹⁹⁸⁾	-	-	\$0.00 [0.00-0.00] ⁽¹⁹⁸⁾	\$5.00 [2.50-7.50] ⁽⁸⁾	\$2.50 [1.25-5.00] ⁽²⁴⁾	\$3.75 [1.50-7.50] ⁽⁵⁴⁾	\$1.12 ⁽¹⁾	-	\$3.12 [2.50-7.50] ⁽⁸⁷⁾
QAACT with the "green leaf" logo										
North Central	\$0.00 [0.00-0.00] ⁽²⁷⁵⁾	-	\$1.25 [0.62-1.25] ⁽³⁾	\$0.00 [0.00-0.00] ⁽²⁷⁸⁾	\$2.50 [1.25-2.50] ⁽¹⁰⁾	\$1.75 [1.75-1.87] ⁽⁹⁾	\$1.56 [1.25-2.50] ⁽¹⁵⁰⁾	\$1.67 [1.67-5.00] ⁽⁵⁾	-	\$1.67 [1.25-2.50] ⁽¹⁷⁴⁾
North East	\$0.00 [0.00-0.00] ⁽⁸⁴⁾	-	-	\$0.00 [0.00-0.00] ⁽⁸⁴⁾	\$1.87 [1.00-1.87] ⁽⁵⁾	\$2.50 [1.87-3.00] ⁽⁵⁾	\$1.56 [1.25-2.00] ⁽¹¹⁵⁾	\$1.25 [1.25-1.50] ⁽⁴⁾	\$14.99 [14.99-14.99] ⁽³⁾	\$1.56 [1.25-2.00] ⁽¹³²⁾
North West	\$0.00 [0.00-1.00] ⁽¹⁴⁷⁾	\$1.12 [1.00-1.25] ⁽²⁾	-	\$0.00 [0.00-1.00] ⁽¹⁴⁹⁾	\$6.50 ⁽¹⁾	\$1.81 [1.62-2.19] ⁽⁴⁾	\$1.25 [1.00-1.75] ⁽¹²⁸⁾	\$0.62 [0.62-1.33] ⁽⁵⁾	\$1.25 ⁽¹⁾	\$1.25 [1.00-1.75] ⁽¹³⁹⁾
South East	\$0.00 [0.00-0.00] ⁽²³⁷⁾	\$2.50 ⁽¹⁾	-	\$0.00 [0.00-0.00] ⁽²³⁸⁾	\$1.87 [1.00-1.87] ⁽⁹⁾	\$1.56 [0.94-4.50] ⁽¹⁷⁾	\$2.00 [1.56-3.12] ⁽²⁴³⁾	-	-	\$1.87 [1.56-3.12] ⁽²⁶⁹⁾
South South	\$0.00 [0.00-0.00] ⁽¹⁴⁹⁾	-	-	\$0.00 [0.00-0.00] ⁽¹⁴⁹⁾	\$3.12 [3.12-5.00] ⁽¹¹⁾	\$3.12 [1.87-6.25] ⁽¹¹⁾	\$2.50 [1.87-3.75] ⁽⁴⁴⁰⁾	\$2.81 [1.56-4.37] ⁽⁴⁾	-	\$2.50 [1.87-3.75] ⁽⁴⁶⁶⁾
South West	\$0.00 [0.00-0.00] ⁽⁶⁴⁸⁾	-	-	\$0.00 [0.00-0.00] ⁽⁶⁴⁸⁾	\$2.50 [1.56-3.00] ⁽³⁴⁾	\$1.87 [1.25-2.50] ⁽¹³⁰⁾	\$1.87 [1.50-2.50] ⁽⁷⁴⁰⁾	\$2.50 [2.50-3.44] ⁽¹¹⁴⁾	-	\$2.50 [1.56-3.00] ^(1,018)

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Non-quality assured ACT (non-QA ACT)										
North Central	\$0.00 [0.00-4.57] ⁽²³⁾	- -	\$2.19 ⁽¹⁾	\$2.19 [2.19-2.19] ⁽²⁴⁾	\$2.81 ⁽¹⁾	\$4.06 [2.19-4.39] ⁽²⁸⁾	\$1.56 [1.25-2.81] ⁽²⁶⁾	- -	- -	\$2.81 [1.56-4.06] ⁽⁵⁵⁾
North East	\$2.50 [2.50-3.75] ⁽²⁶⁾	\$0.00 ⁽¹⁾	- -	\$0.00 [0.00-2.50] ⁽²⁷⁾	- -	\$3.75 [3.01-5.47] ⁽⁸⁾	\$4.37 [3.86-4.37] ⁽³²⁾	- -	- -	\$4.37 [3.75-4.57] ⁽⁴⁰⁾
North West	\$0.00 [0.00-0.00] ⁽¹⁴⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹⁴⁾	\$26.23 ⁽¹⁾	\$2.85 [1.84-5.50] ⁽⁴⁾	\$4.37 [3.07-4.68] ⁽⁴⁴⁾	- -	- -	\$3.75 [2.50-4.68] ⁽⁴⁹⁾
South East	\$1.87 [0.00-4.22] ⁽³⁵⁾	- -	- -	\$1.87 [0.00-4.22] ⁽³⁵⁾	\$4.37 [4.37-4.68] ⁽⁴⁾	\$3.51 [3.00-4.12] ⁽⁴³⁾	\$2.50 [2.19-4.22] ⁽¹²⁶⁾	- -	- -	\$2.81 [2.19-4.37] ⁽¹⁷³⁾
South South	\$0.00 [0.00-0.00] ⁽³⁶⁾	- -	- -	\$0.00 [0.00-0.00] ⁽³⁶⁾	\$4.22 [3.75-4.68] ⁽⁹⁾	\$5.00 [4.22-5.93] ⁽⁶⁰⁾	\$3.75 [2.50-5.00] ⁽²⁹⁹⁾	\$4.26 [3.51-5.00] ⁽²⁾	- -	\$3.75 [2.50-5.00] ⁽³⁷⁰⁾
South West	\$0.00 [0.00-2.25] ⁽³³⁾	- -	- -	\$0.00 [0.00-2.25] ⁽³³⁾	\$3.75 [3.75-5.62] ⁽¹³⁾	\$3.75 [3.12-5.00] ⁽¹⁹²⁾	\$3.44 [2.50-4.37] ⁽¹⁷⁷⁾	\$5.31 [4.92-6.25] ⁽³⁴⁾	- -	\$4.92 [3.16-5.31] ⁽⁴¹⁶⁾
Non-QA AL										
North Central	\$0.00 [0.00-4.75] ⁽¹⁵⁾	- -	\$2.19 ⁽¹⁾	\$2.19 [2.19-2.19] ⁽¹⁶⁾	\$2.81 ⁽¹⁾	\$4.06 [4.06-4.06] ⁽¹⁵⁾	\$1.56 [1.25-2.81] ⁽¹⁸⁾	- -	- -	\$2.50 [1.25-3.75] ⁽³⁴⁾
North East	\$3.75 [0.50-3.75] ⁽²³⁾	\$0.00 ⁽¹⁾	- -	\$0.00 [0.00-0.00] ⁽²⁴⁾	- -	\$3.75 [3.75-4.68] ⁽⁵⁾	\$4.37 [4.06-4.37] ⁽²⁸⁾	- -	- -	\$4.37 [3.75-4.68] ⁽³³⁾
North West	\$0.00 [0.00-0.00] ⁽¹¹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹¹⁾	\$26.23 ⁽¹⁾	\$2.19 [1.50-7.50] ⁽³⁾	\$4.37 [2.50-4.68] ⁽²⁶⁾	- -	- -	\$4.37 [1.56-4.68] ⁽³⁰⁾
South East	\$0.00 [0.00-5.31] ⁽²²⁾	- -	- -	\$0.00 [0.00-5.31] ⁽²²⁾	\$4.37 [4.37-4.68] ⁽³⁾	\$3.75 [3.00-4.12] ⁽²⁹⁾	\$3.75 [2.50-4.75] ⁽⁶²⁾	- -	- -	\$3.75 [2.50-4.68] ⁽⁹⁴⁾
South South	\$0.00 [0.00-0.00] ⁽²⁵⁾	- -	- -	\$0.00 [0.00-0.00] ⁽²⁵⁾	\$3.75 [3.75-5.62] ⁽⁶⁾	\$5.00 [5.00-5.62] ⁽³²⁾	\$4.37 [3.44-5.62] ⁽¹⁷³⁾	\$5.00 ⁽¹⁾	- -	\$4.50 [3.75-5.62] ⁽²¹²⁾
South West	\$0.00 [0.00-2.25] ⁽²¹⁾	- -	- -	\$0.00 [0.00-2.25] ⁽²¹⁾	\$3.75 [3.75-5.62] ⁽¹¹⁾	\$3.75 [3.12-4.68] ⁽¹¹¹⁾	\$3.44 [2.50-4.37] ⁽¹²⁰⁾	\$5.31 [5.31-6.25] ⁽²⁴⁾	- -	\$4.68 [3.12-5.31] ⁽²⁶⁶⁾

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones										
	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Non-QA ASAQ										
North Central	\$0.00 [0.00-0.00] ⁽³⁾	- -	- -	\$0.00 [0.00-0.00] ⁽³⁾	- -	\$2.81 [2.19-4.37] ⁽³⁾	\$2.50 ⁽¹⁾	- -	- -	\$2.81 [2.19-4.37] ⁽⁴⁾
North East	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
North West	- -	- -	- -	- -	- -	- -	\$2.81 [2.81-5.62] ⁽²⁾	- -	- -	\$2.81 [2.81-5.62] ⁽²⁾
South East	\$0.00 [0.00-0.00] ⁽⁷⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁷⁾	\$0.47 ⁽¹⁾	- -	\$3.75 [0.94-6.25] ⁽⁹⁾	- -	- -	\$3.12 [0.94-6.25] ⁽¹⁰⁾
South South	\$0.00 [0.00-0.00] ⁽⁵⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁵⁾	- -	\$3.12 [3.12-3.75] ⁽⁷⁾	\$5.00 [3.44-6.25] ⁽¹⁴⁾	- -	- -	\$4.37 [3.44-6.25] ⁽²¹⁾
South West	\$0.00 [0.00-0.00] ⁽⁵⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁵⁾	\$3.75 ⁽¹⁾	\$3.75 [2.94-4.37] ⁽²²⁾	\$4.37 [3.12-7.50] ⁽¹¹⁾	- -	- -	\$3.75 [3.12-5.00] ⁽³⁴⁾
Chloroquine										
North Central	\$0.12 ⁽¹⁾	- -	- -	\$0.12 ⁽¹⁾	- -	\$0.19 [0.19-0.19] ⁽⁴⁾	\$0.15 [0.15-0.30] ⁽⁵⁴⁾	- -	- -	\$0.18 [0.15-0.30] ⁽⁵⁸⁾
North East	\$0.12 [0.12-0.12] ⁽⁸⁾	- -	- -	\$0.12 [0.12-0.12] ⁽⁸⁾	\$0.78 [0.30-0.78] ⁽²⁾	\$0.30 [0.15-0.30] ⁽³⁾	\$0.30 [0.24-0.30] ⁽³⁹⁾	\$0.30 [0.30-0.30] ⁽⁴⁾	\$0.30 [0.30-0.30] ⁽³⁾	\$0.30 [0.24-0.30] ⁽⁵¹⁾
North West	\$0.24 [0.24-0.24] ⁽⁶⁾	- -	- -	\$0.24 [0.24-0.24] ⁽⁶⁾	- -	\$0.50 [0.12-0.87] ⁽²⁾	\$0.30 [0.30-0.60] ⁽⁴³⁾	\$0.60 ⁽¹⁾	\$0.76 [0.76-0.76] ⁽²⁾	\$0.30 [0.30-0.76] ⁽⁴⁸⁾
South East	\$0.12 [0.12-0.30] ⁽³⁾	- -	- -	\$0.12 [0.12-0.30] ⁽³⁾	- -	\$0.94 [0.12-1.25] ⁽³⁾	\$0.30 [0.15-0.62] ⁽¹⁹⁾	- -	- -	\$0.30 [0.15-0.78] ⁽²²⁾
South South	\$0.60 [0.60-0.60] ⁽⁵⁾	- -	- -	\$0.60 [0.60-0.60] ⁽⁵⁾	- -	\$1.00 [0.94-4.75] ⁽⁴⁾	\$0.30 [0.15-0.81] ⁽⁸⁰⁾	\$0.60 ⁽¹⁾	- -	\$0.30 [0.15-0.81] ⁽⁸⁵⁾
South West	\$0.00 [0.00-0.12] ⁽⁵⁾	- -	- -	\$0.00 [0.00-0.12] ⁽⁵⁾	\$1.25 [1.25-3.02] ⁽³⁾	\$0.94 [0.60-0.94] ⁽³⁰⁾	\$0.42 [0.30-0.60] ⁽¹²³⁾	\$0.94 [0.94-1.25] ⁽¹⁸⁾	- -	\$0.42 [0.30-0.94] ⁽¹⁷⁴⁾

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Quinine										
North Central	\$7.87 [0.00-7.87] ⁽¹³⁾	- -	- -	\$7.87 [2.19-7.87] ⁽¹³⁾	- -	\$6.56 ⁽¹⁾	\$6.56 [1.25-6.56] ⁽³⁾	- -	- -	\$6.56 [1.25-6.56] ⁽⁴⁾
North East	\$5.25 [0.50-7.87] ⁽⁵⁾	- -	- -	\$5.25 [0.00-7.87] ⁽⁵⁾	\$7.87 ⁽¹⁾	- -	\$7.87 [4.06-7.87] ⁽⁷⁾	- -	- -	\$7.87 [3.75-7.87] ⁽⁸⁾
North West	\$0.79 [0.00-0.79] ⁽²⁾	- -	- -	\$0.79 [0.00-0.79] ⁽²⁾	- -	\$6.03 ⁽¹⁾	\$6.56 [2.50-6.56] ⁽⁶⁾	- -	- -	\$6.03 [1.56-6.56] ⁽⁷⁾
South East	\$7.87 [0.00-7.87] ⁽²⁾	- -	- -	\$7.87 [0.00-7.87] ⁽²⁾	\$11.15 [4.37-13.12] ⁽²⁾	\$41.54 [3.00-41.54] ⁽⁴⁾	\$13.12 [2.50-13.12] ⁽²⁾	- -	- -	\$13.12 [2.50-13.12] ⁽⁸⁾
South South	\$5.25 [0.00-5.25] ⁽⁷⁾	- -	- -	\$5.25 [0.00-5.25] ⁽⁷⁾	- -	\$5.90 [5.00-7.87] ⁽²⁾	\$7.87 [3.44-9.18] ⁽¹⁸⁾	- -	- -	\$7.87 [3.75-9.18] ⁽²⁰⁾
South West	- -	- -	- -	- -	\$10.49 [3.75-15.74] ⁽²⁾	\$4.72 [3.12-6.56] ⁽⁹⁾	\$6.56 [2.50-6.56] ⁽⁴⁾	- -	- -	\$6.56 [3.12-6.56] ⁽¹⁵⁾
Sulfadoxine-Pyrimethamine (SP)										
North Central	\$0.00 [0.00-0.00] ⁽⁶²⁾	- -	\$0.62 ⁽¹⁾	\$0.00 [0.00-0.62] ⁽⁶³⁾	\$0.62 ⁽¹⁾	\$0.62 [0.44-0.62] ⁽¹⁵⁾	\$0.62 [0.44-0.62] ⁽¹⁸²⁾	\$0.50 [0.44-1.25] ⁽³⁾	- -	\$0.62 [0.44-0.62] ⁽²⁰¹⁾
North East	\$0.00 [0.00-0.12] ⁽⁸⁹⁾	\$0.31 ⁽¹⁾	- -	\$0.12 [0.00-0.31] ⁽⁹⁰⁾	\$0.44 [0.44-1.25] ⁽²⁾	\$0.62 [0.62-0.62] ⁽⁴⁾	\$0.37 [0.31-0.62] ⁽¹⁴¹⁾	\$0.31 [0.25-0.31] ⁽³⁾	\$0.62 [0.31-0.62] ⁽⁴⁾	\$0.37 [0.31-0.62] ⁽¹⁵⁴⁾
North West	\$0.00 [0.00-0.31] ⁽⁷⁵⁾	\$0.37 [0.31-0.44] ⁽²⁾	- -	\$0.00 [0.00-0.31] ⁽⁷⁷⁾	\$0.44 ⁽¹⁾	\$0.53 [0.37-0.97] ⁽⁴⁾	\$0.31 [0.31-0.44] ⁽¹⁰⁵⁾	\$0.94 [0.62-0.94] ⁽²⁾	- -	\$0.31 [0.31-0.50] ⁽¹¹²⁾
South East	\$0.00 [0.00-0.44] ⁽⁵³⁾	\$0.37 ⁽¹⁾	- -	\$0.00 [0.00-0.44] ⁽⁵⁴⁾	\$0.62 [0.62-0.62] ⁽²⁾	\$0.50 [0.44-1.00] ⁽¹⁶⁾	\$0.62 [0.44-0.75] ⁽²⁵⁵⁾	- -	- -	\$0.62 [0.44-0.75] ⁽²⁷³⁾
South South	\$0.00 [0.00-0.00] ⁽⁴³⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁴³⁾	\$0.94 [0.62-1.56] ⁽¹⁰⁾	\$0.62 [0.50-1.56] ⁽¹⁹⁾	\$0.62 [0.50-0.94] ⁽⁵⁷²⁾	\$0.62 [0.50-0.62] ⁽⁵⁾	- -	\$0.62 [0.50-0.94] ⁽⁶⁰⁶⁾
South West	\$0.00 [0.00-0.00] ⁽⁸⁷⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁸⁷⁾	\$0.50 [0.50-1.56] ⁽¹⁵⁾	\$0.62 [0.31-1.00] ⁽¹²⁷⁾	\$0.62 [0.44-0.62] ⁽⁷⁰⁰⁾	\$0.94 [0.50-1.25] ⁽¹¹⁸⁾	\$0.31 ⁽¹⁾	\$0.62 [0.50-0.94] ⁽⁹⁶¹⁾

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Oral Artemisinin Monotherapy										
North Central	\$2.80 [2.80-2.80] ⁽⁴⁾	- -	- -	\$2.80 [2.80-2.80] ⁽⁴⁾	- -	\$4.00 [4.00-4.00] ⁽⁴⁾	\$3.00 [2.50-3.00] ⁽³⁰⁾	- -	- -	\$3.00 [3.00-3.00] ⁽³⁴⁾
North East	\$3.50 [3.50-3.50] ⁽⁵⁾	- -	- -	\$3.50 [3.50-3.50] ⁽⁵⁾	- -	\$3.00 (1)	\$2.50 [2.00-2.50] ⁽¹⁴⁾	- -	- -	\$2.50 [2.00-2.50] ⁽¹⁵⁾
North West	\$2.30 [2.30-3.00] ⁽³⁾	- -	- -	\$2.30 [2.30-3.00] ⁽³⁾	\$1.50 [1.50-41.98] ⁽²⁾	\$3.00 (1)	\$2.50 [2.50-3.00] ⁽¹⁵⁾	- -	- -	\$3.00 [2.50-3.00] ⁽¹⁸⁾
South East	\$3.00 [3.00-3.00] ⁽⁵⁾	- -	- -	\$3.00 [3.00-3.00] ⁽⁵⁾	\$6.00 (1)	\$3.50 [3.00-3.50] ⁽⁴⁾	\$3.00 [3.00-3.50] ⁽⁴⁶⁾	- -	- -	\$3.00 [3.00-3.50] ⁽⁵¹⁾
South South	\$3.50 [3.50-5.00] ⁽¹²⁾	- -	- -	\$3.50 [3.50-5.00] ⁽¹²⁾	\$3.50 [3.50-4.00] ⁽³⁾	\$3.12 [3.00-4.00] ⁽⁷⁾	\$3.50 [3.50-4.00] ⁽¹¹¹⁾	- -	- -	\$3.50 [3.50-4.00] ⁽¹²¹⁾
South West	\$0.00 [0.00-3.00] ⁽³⁾	- -	- -	\$0.00 [0.00-3.00] ⁽³⁾	\$5.00 [3.00-5.00] ⁽²⁾	\$3.10 [3.00-3.50] ⁽²⁸⁾	\$3.00 [2.60-3.50] ⁽⁸⁹⁾	\$4.00 [3.50-4.00] ⁽¹⁹⁾	- -	\$3.50 [3.00-4.00] ⁽¹³⁸⁾
Median price of an oral liquid AETD*:										
Chloroquine syrup										
North Central	\$1.25 [1.09-2.34] ⁽¹²⁾	- -	- -	\$1.25 [1.09-2.34] ⁽¹²⁾	\$1.87 [1.87-1.87] ⁽³⁾	\$1.46 [1.46-1.46] ⁽⁵⁾	\$1.56 [1.46-2.34] ⁽²¹²⁾	\$1.56 [1.56-1.95] ⁽¹²⁾	- -	\$1.56 [1.46-1.95] ⁽²³²⁾
North East	\$1.56 [1.56-1.56] ⁽¹⁸⁾	\$0.29 (1)	- -	\$0.29 [0.29-1.56] ⁽¹⁹⁾	- -	\$1.56 [1.56-1.61] ⁽⁵⁾	\$1.25 [0.94-1.56] ⁽²¹¹⁾	\$0.78 [0.62-0.98] ⁽³⁾	\$0.78 [0.78-0.78] ⁽²⁾	\$1.25 [0.94-1.56] ⁽²²¹⁾
North West	\$0.78 [0.62-0.94] ⁽⁴⁴⁾	\$0.78 [0.78-1.25] ⁽³⁾	- -	\$0.78 [0.78-0.94] ⁽⁴⁷⁾	\$0.78 (1)	\$1.46 [1.46-2.34] ⁽³⁾	\$0.78 [0.78-1.37] ⁽²¹³⁾	\$0.78 [0.78-0.78] ⁽²⁾	- -	\$0.78 [0.78-1.41] ⁽²¹⁹⁾
South East	\$1.46 [1.38-1.46] ⁽⁹⁾	- -	- -	\$1.46 [1.38-1.46] ⁽⁹⁾	\$0.15 [0.15-0.98] ⁽³⁾	\$1.87 [1.56-1.87] ⁽⁷⁾	\$1.56 [1.37-1.95] ⁽¹⁷⁰⁾	\$1.71 [1.46-1.95] ⁽²⁾	- -	\$1.56 [1.37-1.95] ⁽¹⁸²⁾
South South	\$0.00 [0.00-1.87] ⁽⁴⁾	- -	- -	\$0.00 [0.00-1.87] ⁽⁴⁾	\$3.51 [2.34-4.68] ⁽²⁾	\$1.56 [1.46-2.34] ⁽⁸⁾	\$1.87 [1.46-2.34] ⁽²⁹⁴⁾	\$1.46 [1.25-1.87] ⁽³⁾	- -	\$1.87 [1.46-2.34] ⁽³⁰⁷⁾
South West	\$0.00 [0.00-0.00] ⁽²⁾	- -	- -	\$0.00 [0.00-0.00] ⁽²⁾	\$2.34 [1.66-2.65] ⁽¹³⁾	\$1.56 [1.46-1.76] ⁽⁵⁴⁾	\$1.56 [1.46-1.95] ⁽⁵¹⁶⁾	\$2.34 [1.46-2.34] ⁽⁶²⁾	- -	\$1.56 [1.46-2.03] ⁽⁶⁴⁵⁾

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Quinine syrup										
North Central	\$4.06 [4.06-4.06] ⁽²⁾	- -	- -	\$4.06 [4.06-4.06] ⁽²⁾	- -	\$6.50 ⁽¹⁾	\$4.06 [4.06-6.50] ⁽⁷⁾	- -	- -	\$4.06 [4.06-6.50] ⁽⁸⁾
North East	\$4.88 [4.88-4.88] ⁽³⁾	- -	- -	\$4.88 [4.88-4.88] ⁽³⁾	- -	- -	\$4.88 [4.88-5.69] ⁽⁹⁾	- -	- -	\$4.88 [4.88-5.69] ⁽⁹⁾
North West	\$6.83 [3.25-6.83] ⁽³⁾	- -	- -	\$6.83 [3.25-6.83] ⁽³⁾	- -	\$7.31 ⁽¹⁾	\$4.06 [3.25-4.88] ⁽¹²⁾	- -	- -	\$4.06 [3.25-4.88] ⁽¹³⁾
South East	- -	- -	- -	- -	\$6.50 [3.25-6.50] ⁽²⁾	\$6.40 [5.69-7.11] ⁽²⁾	\$6.50 [4.88-6.50] ⁽⁹⁾	- -	- -	\$6.50 [4.88-6.50] ⁽¹³⁾
South South	\$7.11 [7.11-7.11] ⁽¹⁵⁾	- -	- -	\$7.11 [7.11-7.11] ⁽¹⁵⁾	- -	- -	\$6.50 [5.69-7.58] ⁽⁶⁶⁾	\$7.58 ⁽¹⁾	- -	\$6.50 [5.69-7.58] ⁽⁶⁷⁾
South West	- -	- -	- -	- -	- -	\$4.88 ⁽¹⁾	\$5.85 [5.85-6.50] ⁽⁷⁾	\$14.63 [14.63-14.63] ⁽²⁾	- -	\$14.63 [14.63-14.63] ⁽¹⁰⁾
SP suspension										
North Central	\$0.94 [0.94-0.94] ⁽³⁾	- -	- -	\$0.94 [0.94-0.94] ⁽³⁾	- -	\$1.22 ⁽¹⁾	\$0.94 [0.94-0.94] ⁽¹²⁾	- -	- -	\$0.94 [0.94-0.94] ⁽¹³⁾
North East	\$0.00 [0.00-0.00] ⁽⁵⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁵⁾	- -	\$0.62 [0.62-1.41] ⁽²⁾	\$0.94 [0.81-1.41] ⁽²⁷⁾	- -	- -	\$0.94 [0.81-1.41] ⁽²⁹⁾
North West	\$2.72 [2.72-2.72] ⁽¹⁴⁾	- -	- -	\$2.72 [2.72-2.72] ⁽¹⁴⁾	\$0.94 ⁽¹⁾	- -	\$0.75 [0.75-0.94] ⁽¹⁴⁾	- -	- -	\$0.75 [0.75-0.94] ⁽¹⁵⁾
South East	\$0.94 ⁽¹⁾	- -	- -	\$0.94 ⁽¹⁾	\$4.68 ⁽¹⁾	\$0.62 [0.62-0.62] ⁽²⁾	\$1.87 [1.87-1.87] ⁽¹¹⁾	- -	- -	\$1.87 [1.87-3.75] ⁽¹⁴⁾
South South	\$1.56 [0.00-1.56] ⁽⁵⁾	- -	- -	\$1.56 [0.00-1.56] ⁽⁵⁾	- -	\$0.94 [0.94-1.87] ⁽³⁾	\$1.41 [1.25-1.87] ⁽³⁹⁾	- -	- -	\$1.41 [1.25-1.87] ⁽⁴²⁾
South West	- -	- -	- -	- -	\$3.75 ⁽¹⁾	\$0.94 [0.69-1.41] ⁽⁸⁾	\$0.94 [0.94-0.94] ⁽¹⁴⁾	\$0.94 [0.94-0.94] ⁽⁵⁾	- -	\$0.94 [0.94-0.94] ⁽²⁸⁾

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Artesunate suspension										
North Central	\$18.74 [18.74-18.74] ⁽³⁾	- -	- -	\$18.74 [18.74-18.74] ⁽³⁾	- -	\$22.49 [22.49-22.49] ⁽³⁾	\$22.49 [18.74-22.49] ⁽¹³⁾	\$6.75 (1)	- -	\$18.74 [6.75-22.49] ⁽¹⁷⁾
North East	\$24.36 [24.36-24.36] ⁽⁴⁾	- -	- -	\$24.36 [24.36-24.36] ⁽⁴⁾	- -	\$18.74 (1)	\$14.99 [14.99-16.87] ⁽⁹⁾	- -	- -	\$14.99 [14.99-18.74] ⁽¹⁰⁾
North West	\$13.49 (1)	- -	- -	\$13.49 (1)	- -	- -	\$14.99 [13.49-18.74] ⁽¹⁰⁾	- -	- -	\$14.99 [13.49-18.74] ⁽¹⁰⁾
South East	\$20.61 [20.61-20.61] ⁽³⁾	- -	- -	\$20.61 [20.61-20.61] ⁽³⁾	- -	\$18.74 [17.24-18.74] ⁽³⁾	\$20.61 [16.87-22.49] ⁽⁹⁾	- -	- -	\$18.74 [16.87-22.49] ⁽¹²⁾
South South	\$18.74 [18.74-18.74] ⁽⁵⁾	- -	- -	\$18.74 [18.74-18.74] ⁽⁵⁾	\$22.49 (1)	\$22.49 [20.61-22.49] ⁽⁵⁾	\$20.61 [16.87-22.49] ⁽⁵¹⁾	\$18.74 (1)	- -	\$20.61 [16.87-22.49] ⁽⁵⁸⁾
South West	\$13.87 [13.87-16.87] ⁽²⁾	- -	- -	\$13.87 [13.87-16.87] ⁽²⁾	\$18.74 (1)	\$18.74 [16.87-20.99] ⁽¹⁷⁾	\$18.74 [18.74-24.36] ⁽²⁹⁾	\$20.61 [20.61-20.61] ⁽⁷⁾	- -	\$20.61 [18.74-20.61] ⁽⁵⁴⁾
AL suspension										
North Central	\$11.66 [11.16-11.66] ⁽⁹⁾	- -	- -	\$11.66 [11.16-11.66] ⁽⁹⁾	\$6.66 (1)	\$9.99 [9.99-9.99] ⁽⁶⁾	\$6.66 [6.66-9.99] ⁽²²⁾	\$8.54 [8.33-8.74] ⁽²⁾	- -	\$7.50 [6.66-9.99] ⁽³¹⁾
North East	\$9.99 [9.99-9.99] ⁽¹⁰⁾	- -	- -	\$9.99 [9.99-9.99] ⁽¹⁰⁾	\$8.12 (1)	\$8.43 [7.81-9.37] ⁽⁴⁾	\$9.99 [8.74-9.99] ⁽³²⁾	- -	- -	\$9.99 [8.74-9.99] ⁽³⁷⁾
North West	\$6.66 [6.66-7.50] ⁽²²⁾	- -	- -	\$6.66 [6.66-7.50] ⁽²²⁾	\$11.66 (1)	\$7.50 (1)	\$6.25 [5.62-7.50] ⁽³¹⁾	- -	- -	\$6.66 [5.62-7.50] ⁽³³⁾
South East	\$8.12 [8.12-8.12] ⁽⁶⁾	- -	- -	\$8.12 [8.12-8.12] ⁽⁶⁾	\$28.11 [28.11-28.11] ⁽²⁾	\$8.33 [8.00-8.99] ⁽¹⁵⁾	\$6.87 [5.00-8.33] ⁽³⁰⁾	- -	- -	\$7.50 [5.83-9.99] ⁽⁴⁷⁾
South South	\$0.00 [0.00-6.25] ⁽¹¹⁾	- -	- -	\$0.00 [0.00-6.25] ⁽¹¹⁾	\$10.62 [10.62-10.62] ⁽²⁾	\$9.99 [9.37-13.33] ⁽²³⁾	\$8.74 [6.87-9.99] ⁽⁹⁰⁾	- -	- -	\$9.37 [6.87-10.62] ⁽¹¹⁵⁾
South West	\$6.66 [0.00-9.16] ⁽¹⁷⁾	- -	- -	\$6.66 [0.00-9.16] ⁽¹⁷⁾	\$9.99 [8.74-13.33] ⁽⁵⁾	\$7.50 [6.66-8.33] ⁽³³⁾	\$8.74 [6.87-8.74] ⁽⁴¹⁾	\$8.74 [8.74-8.74] ⁽⁹⁾	- -	\$8.74 [7.50-8.74] ⁽⁸⁸⁾

Table B4a: Price of tablet and oral liquid formulation antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
DHA PPQ suspension										
North Central	\$18.27 [13.24-18.27] ⁽²⁾	- -	- -	\$18.27 [13.24-18.27] ⁽²⁾	- -	\$8.78 [8.78-8.78] ⁽³⁾	\$12.65 [12.65-12.65] ⁽⁸⁾	- -	- -	\$12.65 [8.78-12.65] ⁽¹¹⁾
North East	\$5.15 [0.00-5.15] ⁽³⁾	- -	- -	\$5.15 [0.00-5.15] ⁽³⁾	- -	\$14.05 ⁽¹⁾	\$14.05 [14.05-15.46] ⁽⁴⁾	- -	- -	\$14.05 [14.05-15.46] ⁽⁵⁾
North West	\$15.46 [12.65-16.87] ⁽⁴⁾	- -	- -	\$15.46 [12.65-16.87] ⁽⁴⁾	- -	\$14.05 ⁽¹⁾	\$14.05 [12.65-14.05] ⁽⁹⁾	- -	- -	\$14.05 [12.65-14.05] ⁽¹⁰⁾
South East	\$16.87 [16.87-16.87] ⁽²⁾	- -	- -	\$16.87 [16.87-16.87] ⁽²⁾	- -	\$14.05 [12.93-14.05] ⁽⁴⁾	\$11.24 [7.03-12.65] ⁽¹⁷⁾	- -	- -	\$11.24 [7.03-13.49] ⁽²¹⁾
South South	\$12.62 [12.62-16.87] ⁽²⁾	- -	- -	\$12.62 [12.62-16.87] ⁽²⁾	\$18.27 ⁽¹⁾	\$16.87 [16.87-18.74] ⁽⁹⁾	\$15.46 [12.65-18.27] ⁽⁵⁶⁾	- -	- -	\$16.87 [14.05-18.27] ⁽⁶⁶⁾
South West	\$15.46 ⁽¹⁾	- -	- -	\$15.46 ⁽¹⁾	- -	\$14.05 [12.65-16.87] ⁽¹⁹⁾	\$16.87 [14.05-16.87] ⁽²⁶⁾	\$21.08 [21.08-21.08] ⁽⁶⁾	- -	\$21.08 [14.05-21.08] ⁽⁵¹⁾

* AETD - adult equivalent treatment dose - is or the number of milligrams required to treat a 60kg adult (see Annex 11). Information provided by the respondent about price for a specific amount of antimalarial drug (e.g. price per tablet or price per specific package size) was converted to the price per AETD.

Figures in this table are derived using audited products with price information. The numbers of antimalarials captured in audit sheets with missing price information are as follows:

113 any ACT tablet, 82 artemether lumefantrine tablet, 19 artesunate amodiaquine tablet, 9 dihydroartemisinin piperazine tablet, 64 QAACT tablet, 52 artemether lumefantrine QAACT tablet, 12 artesunate amodiaquine QAACT tablet, 23 child QAACT tablet, 29 adult QAACT tablet, 58 QAACT with the 'green leaf' logo tablet, 49 non-quality assured ACT tablet, 30 artemether lumefantrine non-quality assured ACT tablet, 7 artesunate amodiaquine non-quality assured ACT tablet, 26 chloroquine tablet, 102 quinine tablet, 59 sulfadoxine pyrimethamine tablet, 20 oral artemisinin monotherapy tablet, 34 chloroquine syrup, 10 quinine syrup, 6 sulfadoxine pyrimethamine suspension, 7 artesunate suspension, 14 artemether lumefantrine suspension, 2 dihydroartemisinin piperazine suspension

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B4b: Price of pre-packaged antimalarials, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of one pre-packaged therapy:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Pediatric QA AL *										
North Central	\$0.00 [0.00-0.00] ⁽⁷⁷⁾	- -	\$0.31 (1)	\$0.00 [0.00-0.31] ⁽⁷⁸⁾	- -	\$0.44 (1)	\$0.62 [0.62-0.75] ⁽³⁹⁾	\$1.25 (1)	- -	\$0.62 [0.62-0.94] ⁽⁴¹⁾
North East	\$0.00 [0.00-0.00] ⁽⁷⁶⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁷⁶⁾	\$0.44 [0.44-0.44] ⁽²⁾	\$0.62 [0.62-0.75] ⁽²⁾	\$0.50 [0.31-0.62] ⁽⁵¹⁾	\$0.37 [0.31-0.44] ⁽³⁾	\$3.75 [3.75-3.75] ⁽²⁾	\$0.50 [0.31-0.62] ⁽⁶⁰⁾
North West	\$0.00 [0.00-0.00] ⁽⁴⁷⁾	\$0.31 (1)	- -	\$0.00 [0.00-0.00] ⁽⁴⁸⁾	\$1.62 (1)	\$0.62 (1)	\$0.50 [0.31-0.62] ⁽³⁸⁾	\$0.62 (1)	\$0.31 (1)	\$0.50 [0.31-0.62] ⁽⁴²⁾
South East	\$0.00 [0.00-0.00] ⁽⁹⁰⁾	\$0.62 (1)	- -	\$0.00 [0.00-0.00] ⁽⁹¹⁾	\$0.25 [0.25-1.56] ⁽³⁾	\$1.25 [1.12-2.50] ⁽⁷⁾	\$0.94 [0.62-0.94] ⁽⁷⁹⁾	\$0.94 (1)	- -	\$0.94 [0.62-0.94] ⁽⁹⁰⁾
South South	\$0.00 [0.00-0.00] ⁽³⁹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽³⁹⁾	\$1.25 [1.25-1.87] ⁽³⁾	\$1.87 [1.87-2.19] ⁽³⁾	\$1.25 [0.94-1.25] ⁽¹³³⁾	\$0.94 (1)	- -	\$1.25 [0.94-1.56] ⁽¹⁴⁰⁾
South West	\$0.00 [0.00-0.00] ⁽¹⁵¹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹⁵¹⁾	\$0.44 [0.44-0.94] ⁽³⁾	\$0.75 [0.62-0.94] ⁽³⁴⁾	\$0.75 [0.62-0.94] ⁽²¹³⁾	\$1.56 [0.75-2.81] ⁽³⁵⁾	- -	\$0.75 [0.62-1.25] ⁽²⁸⁵⁾
Pediatric QA ASAQ *										
North Central	\$0.00 [0.00-0.00] ⁽⁴⁹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽⁴⁹⁾	\$0.62 (1)	\$0.44 [0.44-0.44] ⁽²⁾	\$0.94 [0.62-0.94] ⁽⁹⁾	- -	- -	\$0.62 [0.62-0.94] ⁽¹²⁾
North East	\$0.00 (1)	- -	- -	\$0.00 (1)	- -	- -	\$0.62 (1)	- -	- -	\$0.62 -
North West	\$0.31 [0.00-0.31] ⁽⁴⁾	- -	- -	\$0.31 [0.00-0.31] ⁽⁴⁾	- -	- -	\$0.44 [0.25-1.12] ⁽³⁾	- -	- -	\$0.44 [0.25-1.12] ⁽³⁾
South East	\$0.00 [0.00-0.00] ⁽¹⁰⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹⁰⁾	- -	\$0.19 [0.19-0.19] ⁽³⁾	\$0.75 [0.62-0.94] ⁽¹⁴⁾	- -	- -	\$0.75 [0.62-0.94] ⁽¹⁷⁾
South South	\$0.00 [0.00-0.00] ⁽¹¹⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹¹⁾	- -	\$2.03 [1.66-2.19] ⁽⁴⁾	\$0.94 [0.50-1.25] ⁽²⁸⁾	- -	- -	\$0.94 [0.62-1.25] ⁽³²⁾
South West	\$0.00 [0.00-0.00] ⁽¹⁰⁵⁾	- -	- -	\$0.00 [0.00-0.00] ⁽¹⁰⁵⁾	- -	\$0.62 [0.62-0.94] ⁽¹⁰⁾	\$0.75 [0.75-0.94] ⁽²⁹⁾	- -	- -	\$0.75 [0.75-0.94] ⁽³⁹⁾

* Pediatric country-specific QAACT is the pre-packaged regimen appropriate for a 10kg child (2 years of age).

Figures in this table are derived using audited products with price information. The numbers of antimalarials captured in audit sheets with missing price information are as follows:

10 artemether lumefantrine pediatric QAACT, 1 artesunate amodiaquine pediatric QAACT

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B5: Availability of malaria blood testing among antimalarial-stocking outlets*, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets** stocking	NC N=106 NE N=114 NW N=118 SE N=114 SS N=86 SW N=169	NC N=1 NE N=2 NW N=1 SE N=2 SS N=0 SW N=0	NC N=4 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=111 NE N=116 NW N=120 SE N=116 SS N=86 SW N=169	NC N=8 NE N=6 NW N=2 SE N=13 SS N=13 SW N=36	NC N=3 NE N=3 NW N=1 SE N=7 SS N=8 SW N=28	NC N=87 NE N=96 NW N=85 SE N=97 SS N=194 SW N=276	NC N=4 NE N=6 NW N=6 SE N=2 SS N=2 SW N=54	NC N=0 NE N=8 NW N=5 SE N=0 SS N=0 SW N=1	NC N=102 NE N=119 NW N=99 SE N=119 SS N=217 SW N=395
Any malaria blood testing										
North Central	57.5 (35.6, 76.8)	0.0 -	49.4 (26.9, 72.2)	52.3 (35.8, 68.3)	66.5 (37.7, 86.7)	0.0 -	4.8 (0.8, 24.7)	0.0 -	- -	13.8 (6.5, 27.0)
North East	51.1 (19.6, 81.8)	0.0 -	- -	41.2 (12.8, 77.0)	91.6 (45.7, 99.3)	0.0 -	17.1 (9.1, 29.8)	0.0 -	0.0 -	18.1 (9.9, 30.6)
North West	45.3 (19.1, 74.4)	50.0 -	- -	45.5 (20.1, 73.6)	31.4 (2.2, 90.4)	0.0 -	8.2 (3.1, 20.0)	0.0 -	0.0 -	6.6 (2.5, 16.4)
South East	61.7 (29.0, 86.4)	0.0 -	- -	53.6 (23.7, 81.1)	66.2 (38.5, 86.0)	12.3 (2.5, 43.2)	6.4 (1.4, 24.6)	0.0 -	- -	12.0 (5.6, 23.9)
South South	50.4 (23.3, 77.3)	- -	- -	50.4 (23.3, 77.3)	50.9 (21.5, 79.6)	27.7 (16.0, 43.5)	2.4 (0.7, 8.7)	0.0 -	- -	5.3 (2.9, 9.7)
South West	37.1 (10.2, 75.3)	- -	- -	37.1 (10.2, 75.3)	54.3 (17.8, 86.8)	8.4 (3.1, 20.5)	4.5 (0.6, 26.7)	0.0 -	0.0 -	9.9 (3.4, 25.4)
	NC N=106 NE N=114 NW N=118 SE N=114 SS N=86 SW N=169	NC N=1 NE N=2 NW N=2 SE N=2 SS N=0 SW N=0	NC N=4 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=111 NE N=116 NW N=120 SE N=116 SS N=86 SW N=169	NC N=8 NE N=6 NW N=2 SE N=13 SS N=13 SW N=36	NC N=3 NE N=3 NW N=1 SE N=7 SS N=8 SW N=28	NC N=87 NE N=96 NW N=85 SE N=97 SS N=194 SW N=276	NC N=4 NE N=6 NW N=6 SE N=2 SS N=2 SW N=54	NC N=0 NE N=8 NW N=5 SE N=0 SS N=0 SW N=1	NC N=102 NE N=119 NW N=99 SE N=119 SS N=217 SW N=395
Microscopic blood tests										
North Central	14.6 (3.0, 48.4)	0.0 -	16.0 (1.3, 73.9)	14.6 (3.7, 43.1)	0.1 (0.0, 0.9)	0.0 -	0.0 -	0.0 -	- -	0.0 (0.0, 0.1)
North East	4.4 (0.7, 22.9)	0.0 -	- -	3.6 (0.6, 19.5)	83.9 (38.4, 97.8)	0.0 -	0.0 -	0.0 -	0.0 -	3.9 (1.1, 12.8)
North West	15.0 (2.5, 54.7)	0.0 -	- -	14.4 (2.5, 52.7)	0.0 -	0.0 -	0.0 -	0.0 -	0.0 -	0.0 -
South East	1.5 (0.5, 4.3)	0.0 -	- -	1.3 (0.5, 3.5)	48.0 (13.2, 84.8)	0.0 -	0.0 -	0.0 -	- -	4.4 (1.4, 13.1)
South South	36.4 (14.5, 66.0)	- -	- -	36.4 (14.5, 66.0)	50.9 (21.5, 79.6)	13.8 (8.2, 22.4)	1.0 (0.2, 4.9)	0.0 -	- -	3.9 (2.0, 7.2)
South West	5.0 (1.7, 14.0)	- -	- -	5.0 (1.7, 14.0)	7.2 (2.3, 20.2)	0.0 -	0.0 -	0.0 -	0.0 -	0.9 (0.3, 2.3)

Table B5: Availability of malaria blood testing among antimalarial-stocking outlets*, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
	NC N=106 NE N=114 NW N=118 SE N=114 SS N=86 SW N=169	NC N=1 NE N=2 NW N=2 SE N=2 SS N=0 SW N=0	NC N=4 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=111 NE N=116 NW N=120 SE N=116 SS N=86 SW N=169	NC N=8 NE N=6 NW N=2 SE N=13 SS N=13 SW N=36	NC N=3 NE N=3 NW N=1 SE N=7 SS N=8 SW N=28	NC N=87 NE N=96 NW N=85 SE N=96 SS N=194 SW N=276	NC N=4 NE N=6 NW N=6 SE N=2 SS N=2 SW N=54	NC N=0 NE N=8 NW N=5 SE N=0 SS N=0 SW N=1	NC N=102 NE N=119 NW N=99 SE N=118 SS N=217 SW N=395
Rapid diagnostic tests (RDTs)										
North Central	45.7 (26.1, 66.7)	0.0 -	33.5 (12.4, 64.2)	39.3 (24.1, 57.0)	66.5 (37.7, 86.7)	0.0 -	4.8 (0.8, 24.7)	0.0 -	- -	13.8 (6.5, 27.0)
North East	49.0 (18.5, 80.3)	0.0 -	- -	39.5 (12.1, 75.6)	36.2 (4.7, 86.7)	0.0 -	17.1 (9.1, 29.8)	0.0 -	0.0 -	15.5 (8.6, 26.3)
North West	44.9 (18.9, 74.1)	50.0 -	- -	45.2 (19.8, 73.3)	31.4 (2.2, 90.4)	0.0 -	8.2 (3.1, 20.0)	0.0 -	0.0 -	6.6 (2.5, 16.4)
South East	60.6 (28.1, 85.8)	0.0 -	- -	52.6 (22.9, 80.6)	52.7 (35.8, 68.9)	12.3 (2.5, 43.2)	6.5 (1.4, 24.7)	0.0 -	- -	10.8 (4.8, 22.3)
South South	17.8 (4.3, 51.3)	- -	- -	17.8 (4.3, 51.3)	6.7 (0.7, 42.4)	27.7 (16.0, 43.5)	1.5 (0.5, 4.7)	0.0 -	- -	2.0 (0.8, 5.0)
South West	35.8 (9.6, 74.5)	- -	- -	35.8 (9.6, 74.5)	48.6 (14.7, 83.8)	8.4 (3.1, 20.5)	4.5 (0.6, 26.7)	0.0 -	0.0 -	9.2 (3.0, 24.9)

* Blood-testing availability is reported among outlets that either had antimalarials in stock on the day of the survey or reportedly stocked antimalarials in the previous 3 months.

** Results in this table are derived using responses captured among outlets with blood testing information. 15 antimalarial-stocking outlets were missing information about both availability of microscopy and availability of RDTs. 16 antimalarial-stocking outlets had partial information about blood testing availability and are included in the denominator of the indicator "any blood testing available."

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B6: Price of malaria blood testing, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Total median price to consumers:*	Median [IQR] (N of Antimalarials)									
Microscopic blood tests										
Adult										
North Central	0.62 [0.31-0.62] ⁽²⁸⁾	- -	2.5 ⁽¹⁾	0.75 [0.62-2.50] ⁽²⁹⁾	5 [5.00-5.00] ⁽²⁾	- -	- -	- -	- -	5 [5.00-5.00] ⁽²⁾
North East	0.62 [0.62-0.94] ⁽¹⁸⁾	- -	- -	0.62 [0.62-0.94] ⁽¹⁸⁾	0.31 [0.31-1.25] ⁽⁵⁾	- -	- -	- -	- -	0.31 [0.31-1.25] ⁽⁵⁾
North West	0.62 [0.62-0.62] ⁽¹¹⁾	- -	- -	0.62 [0.62-0.62] ⁽¹¹⁾	1.56 ⁽¹⁾	- -	- -	- -	- -	1.56 ⁽¹⁾
South East	1.87 [1.56-1.87] ⁽⁶⁾	- -	- -	1.87 [1.56-1.87] ⁽⁶⁾	3.12 [1.87-3.12] ⁽¹³⁾	- -	- -	- -	- -	3.12 [1.87-3.12] ⁽¹³⁾
South South	1.25 [1.25-1.56] ⁽²⁹⁾	- -	- -	1.25 [1.25-1.56] ⁽²⁹⁾	3.12 [3.12-3.12] ⁽¹⁰⁾	3.75 ⁽¹⁾	1.87 [1.87-1.87] ⁽²⁾	- -	- -	3.12 [3.12-3.12] ⁽¹³⁾
South West	2.19 [1.87-2.50] ⁽²⁵⁾	- -	- -	2.19 [1.87-2.50] ⁽²⁵⁾	3.12 [3.12-5.00] ⁽¹⁷⁾	- -	- -	- -	- -	3.12 [3.12-5.00] ⁽¹⁷⁾
Child under age five										
North Central	0.62 [0.31-0.62] ⁽²⁹⁾	- -	2.5 ⁽¹⁾	0.75 [0.62-2.50] ⁽³⁰⁾	5 [5.00-5.00] ⁽²⁾	- -	- -	- -	- -	5 [5.00-5.00] ⁽²⁾
North East	0.62 [0.62-0.94] ⁽¹⁸⁾	- -	- -	0.62 [0.62-0.94] ⁽¹⁸⁾	0.31 [0.31-1.25] ⁽⁵⁾	- -	- -	- -	- -	0.31 [0.31-1.25] ⁽⁵⁾
North West	0.62 [0.62-0.62] ⁽¹¹⁾	- -	- -	0.62 [0.62-0.62] ⁽¹¹⁾	0.62 ⁽¹⁾	- -	- -	- -	- -	0.62 ⁽¹⁾
South East	1.56 [0.00-1.87] ⁽⁶⁾	- -	- -	1.56 [0.00-1.87] ⁽⁶⁾	3.12 [1.87-3.12] ⁽¹³⁾	- -	- -	- -	- -	3.12 [1.87-3.12] ⁽¹³⁾
South South	0 [0.00-1.56] ⁽²⁹⁾	- -	- -	0 [0.00-1.56] ⁽²⁹⁾	3.12 [3.12-3.12] ⁽¹⁰⁾	3.75 ⁽¹⁾	1.87 ⁽¹⁾	- -	- -	3.12 [3.12-3.12] ⁽¹²⁾
South West	1.87 [1.87-2.50] ⁽²⁴⁾	- -	- -	1.87 [1.87-2.50] ⁽²⁴⁾	3.12 [3.12-4.37] ⁽¹⁶⁾	- -	- -	- -	- -	3.12 [3.12-4.37] ⁽¹⁶⁾

Table B6: Price of malaria blood testing, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Rapid diagnostic tests (RDTs)										
Adult										
North Central	0 [0.00-0.00] ⁽⁶⁵⁾	- -	1.25 ⁽¹⁾	0 [0.00-1.25] ⁽⁶⁶⁾	1.56 [1.25-2.50] ⁽⁷⁾	- -	1.87 [1.87-1.87] ⁽²⁾	- -	- -	1.87 [1.25-2.50] ⁽⁹⁾
North East	0 [0.00-0.00] ⁽⁵⁶⁾	- -	- -	0 [0.00-0.00] ⁽⁵⁶⁾	1.25 [0.62-1.25] ⁽⁴⁾	- -	0.62 [0.00-1.25] ⁽¹³⁾	- -	- -	0.62 [0.00-1.25] ⁽¹⁷⁾
North West	0 [0.00-0.31] ⁽⁶⁵⁾	0 ⁽¹⁾	- -	0 [0.00-0.31] ⁽⁶⁶⁾	1.25 ⁽¹⁾	- -	0.62 [0.62-0.94] ⁽¹⁰⁾	- -	- -	0.62 [0.62-0.94] ⁽¹¹⁾
South East	0 [0.00-0.00] ⁽⁶³⁾	- -	- -	0 [0.00-0.00] ⁽⁶³⁾	1.87 [1.87-3.12] ⁽¹¹⁾	3.12 [3.12-3.12] ⁽²⁾	2.5 [0.00-2.50] ⁽³⁾	- -	- -	1.87 [1.87-2.50] ⁽¹⁶⁾
South South	0 [0.00-1.25] ⁽²⁷⁾	- -	- -	0 [0.00-1.25] ⁽²⁷⁾	9.53 [1.87-17.18] ⁽²⁾	3.44 [3.12-3.75] ⁽²⁾	1.25 [1.25-2.50] ⁽⁶⁾	- -	- -	1.87 [1.25-3.12] ⁽¹⁰⁾
South West	0 [0.00-0.00] ⁽⁸⁶⁾	- -	- -	0 [0.00-0.00] ⁽⁸⁶⁾	3.12 [1.25-3.12] ⁽¹³⁾	1.25 [1.25-3.12] ⁽²⁾	0.62 [0.62-0.62] ⁽²⁾	- -	- -	1.25 [0.62-3.12] ⁽¹⁷⁾
Child under five										
North Central	0 [0.00-0.00] ⁽⁶⁵⁾	- -	1.25 ⁽¹⁾	0 [0.00-1.25] ⁽⁶⁶⁾	1.56 [1.25-2.50] ⁽⁷⁾	- -	1.87 [1.87-1.87] ⁽²⁾	- -	- -	1.87 [1.25-2.50] ⁽⁹⁾
North East	0 [0.00-0.00] ⁽⁵⁶⁾	- -	- -	0 [0.00-0.00] ⁽⁵⁶⁾	0.94 [0.62-1.25] ⁽⁴⁾	- -	0.62 [0.00-1.25] ⁽¹³⁾	- -	- -	0.62 [0.00-1.25] ⁽¹⁷⁾
North West	0 [0.00-0.31] ⁽⁶⁵⁾	0 ⁽¹⁾	- -	0 [0.00-0.31] ⁽⁶⁶⁾	1.25 ⁽¹⁾	- -	0.62 [0.62-0.94] ⁽¹⁰⁾	- -	- -	0.62 [0.62-0.94] ⁽¹¹⁾
South East	0 [0.00-0.00] ⁽⁶²⁾	- -	- -	0 [0.00-0.00] ⁽⁶²⁾	1.87 [1.25-3.12] ⁽¹¹⁾	3.12 [3.12-3.12] ⁽²⁾	2.5 [0.00-2.50] ⁽³⁾	- -	- -	1.87 [1.25-2.50] ⁽¹⁶⁾
South South	0 [0.00-1.25] ⁽²⁷⁾	- -	- -	0 [0.00-1.25] ⁽²⁷⁾	9.53 [1.87-17.18] ⁽²⁾	3.44 [3.12-3.75] ⁽²⁾	1.25 [1.25-1.87] ⁽⁵⁾	- -	- -	1.87 [1.25-3.12] ⁽⁹⁾
South West	0 [0.00-0.00] ⁽⁸⁶⁾	- -	- -	0 [0.00-0.00] ⁽⁸⁶⁾	1.87 [1.25-1.87] ⁽¹³⁾	1.25 [1.25-3.12] ⁽²⁾	0.31 ⁽¹⁾	- -	- -	1.25 [0.31-1.87] ⁽¹⁶⁾

Table B6: Price of malaria blood testing, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price excluding fees: **	Median [IQR] (N of Antimalarials)									
Rapid diagnostic tests (RDTs)										
Adult										
North Central	0 [0.00-0.00] ⁽⁶⁵⁾	- -	1.25 ⁽¹⁾	0 [0.00-1.25] ⁽⁶⁶⁾	1.25 [1.25-1.56] ⁽⁶⁾	- -	0.94 [0.94-0.94] ⁽²⁾	- -	- -	1.25 [0.94-1.56] ⁽⁸⁾
North East	0 [0.00-0.00] ⁽⁵⁶⁾	- -	- -	0 [0.00-0.00] ⁽⁵⁶⁾	0.94 [0.31-1.25] ⁽⁴⁾	- -	0.62 [0.00-1.25] ⁽¹²⁾	- -	- -	0.62 [0.00-1.25] ⁽¹⁶⁾
North West	0 [0.00-0.31] ⁽⁶⁵⁾	0 ⁽¹⁾	- -	0 [0.00-0.31] ⁽⁶⁶⁾	0 ⁽¹⁾	- -	0.62 [0.00-0.94] ⁽¹⁰⁾	- -	- -	0.62 [0.00-0.94] ⁽¹¹⁾
South East	0 [0.00-0.00] ⁽⁶⁰⁾	- -	- -	0 [0.00-0.00] ⁽⁶⁰⁾	0 [0.00-3.12] ⁽⁹⁾	3.12 [3.12-3.12] ⁽²⁾	0 [0.00-0.00] ⁽²⁾	- -	- -	0 [0.00-1.87] ⁽¹³⁾
South South	0 [0.00-1.25] ⁽²⁷⁾	- -	- -	0 [0.00-1.25] ⁽²⁷⁾	3.28 [1.87-4.68] ⁽²⁾	3.44 [3.12-3.75] ⁽²⁾	1.25 [1.25-1.25] ⁽⁵⁾	- -	- -	1.25 [1.25-3.12] ⁽⁹⁾
South West	0 [0.00-0.00] ⁽⁸⁶⁾	- -	- -	0 [0.00-0.00] ⁽⁸⁶⁾	3.12 [1.25-3.12] ⁽¹¹⁾	1.25 [1.25-1.87] ⁽²⁾	0.5 [0.50-0.50] ⁽²⁾	- -	- -	1.25 [0.50-3.12] ⁽¹⁵⁾
Child under five										
North Central	0 [0.00-0.00] ⁽⁶⁵⁾	- -	1.25 ⁽¹⁾	0 [0.00-1.25] ⁽⁶⁶⁾	1.25 [1.25-1.56] ⁽⁶⁾	- -	0.94 [0.94-0.94] ⁽²⁾	- -	- -	1.25 [0.94-1.56] ⁽⁸⁾
North East	0 [0.00-0.00] ⁽⁵⁶⁾	- -	- -	0 [0.00-0.00] ⁽⁵⁶⁾	0.78 [0.31-0.94] ⁽⁴⁾	- -	0.62 [0.00-1.25] ⁽¹²⁾	- -	- -	0.62 [0.00-1.25] ⁽¹⁶⁾
North West	0 [0.00-0.31] ⁽⁶⁵⁾	0 ⁽¹⁾	- -	0 [0.00-0.31] ⁽⁶⁶⁾	0 ⁽¹⁾	- -	0.62 [0.00-0.94] ⁽¹⁰⁾	- -	- -	0.62 [0.00-0.94] ⁽¹¹⁾
South East	0 [0.00-0.00] ⁽⁵⁹⁾	- -	- -	0 [0.00-0.00] ⁽⁵⁹⁾	0 [0.00-3.12] ⁽⁹⁾	3.12 [3.12-3.12] ⁽²⁾	0 [0.00-0.00] ⁽²⁾	- -	- -	0 [0.00-1.87] ⁽¹³⁾
South South	0 [0.00-0.94] ⁽²⁷⁾	- -	- -	0 [0.00-0.94] ⁽²⁷⁾	3.28 [1.87-4.68] ⁽²⁾	3.44 [3.12-3.75] ⁽²⁾	1.25 [1.25-1.25] ⁽⁵⁾	- -	- -	1.25 [1.25-3.12] ⁽⁹⁾
South West	0 [0.00-0.00] ⁽⁸⁶⁾	- -	- -	0 [0.00-0.00] ⁽⁸⁶⁾	1.87 [1.25-1.87] ⁽¹¹⁾	1.25 [1.25-1.87] ⁽²⁾	0.19 [0.19-0.19] ⁽²⁾	- -	- -	1.25 [0.19-1.87] ⁽¹⁵⁾

* Total price to the consumer including consultation and/or service fees.

** Price to the consumer for an RDT excluding consultation and/or service fees.

Microscopic blood testing price information was not available (missing or “don’t know” response) for: 15 adult RDTs, 16 child RDTs, 9 adult microscopy tests, 11 child microscopy tests

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B7.1: Antimalarial market share, North Central Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ANTI-MALARIAL TOTAL**
	%	%	%	%	%	%	%	%	%	%	%
1. Any ACT	9.6	0.0	4.2	13.8	4.5	1.5	14.7	0.7	0.0	21.4	35.2
Artemether Lumefantrine	9.5	0.0	2.8	12.3	4.5	1.2	13.2	0.7	0.0	19.5	31.8
Artesunate Amodiaquine	0.1	0.0	1.5	1.5	0.0	0.2	1.2	0.0	0.0	1.4	3.0
Dihydroartemisinin Piperaquine	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.4	0.4
Other ACT	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1
Quality Assured ACT (QAACT)	9.4	0.0	1.9	11.4	4.3	0.9	13.2	0.6	0.0	19.0	30.3
Artemether Lumefantrine QAACT	9.3	0.0	0.5	9.8	4.3	0.7	12.3	0.6	0.0	17.8	27.7
Artesunate Amodiaquine QAACT	0.1	0.0	1.5	1.5	0.0	0.2	0.9	0.0	0.0	1.1	2.7
QAACT with the "green leaf" logo	9.4	0.0	0.0	9.4	4.3	0.6	12.5	0.6	0.0	18.0	27.4
Non-quality-assured ACT	0.2	0.0	2.3	2.5	0.2	0.7	1.5	0.1	0.0	2.4	4.9
Artemether Lumefantrine non-quality-assured ACT	0.2	0.0	2.3	2.5	0.2	0.5	0.9	0.1	0.0	1.7	4.1
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.3
Nationally Registered ACT	9.5	0.0	1.9	11.5	4.3	1.2	14.4	0.7	0.0	20.6	32.1
First-line ACT ^Ψ	9.6	0.0	4.2	13.8	4.5	1.4	14.4	0.7	0.0	21.0	34.8
2. Any non-artemisinin therapy	3.1	0.0	1.6	4.7	5.8	2.3	45.2	4.3	0.0	57.7	62.4
Chloroquine	0.0	0.0	0.1	0.1	4.3	1.4	26.4	2.6	0.0	34.7	34.8
Sulfadoxine-Pyrimethamine	3.1	0.0	1.4	4.5	1.2	0.9	18.5	1.7	0.0	22.4	26.9
Oral Quinine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Quinine IV/IM	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Amodiaquine	0.0	0.0	0.0	0.0	0.3	0.0	0.2	0.0	0.0	0.5	0.5
3. Oral artemisinin monotherapy	0.2	0.0	0.0	0.2	0.0	0.1	1.5	0.0	0.0	1.6	1.8
4. Non-oral artemisinin monotherapy	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.5	0.6
Artemether IV/IM	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.5	0.6
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.1	0.0	0.1	0.2	0.3	0.1	0.1	0.0	0.0	0.5	0.7
OUTLET TYPE TOTAL***	13.1	0.0	5.9	18.9	10.5	4.1	61.5	5.0	0.0	81.1	100.0

* A total of 4,722.6 AETDs were reportedly sold or distributed in the previous seven days. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

** Row sum – market share for the specified antimalarial medicine.

*** Column sum – market share for the specified outlet type.

^Ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sums to 100% in the far-right column – antimalarial total column.

A total of 1,003 antimalarials were audited. Of these, 44 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B7.2: Antimalarial market share, North East Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ANTI-MALARIAL TOTAL**
	%	%	%	%	%	%	%	%	%	%	%
1. Any ACT	9.2	0.9	0.0	10.0	1.3	2.1	26.1	0.1	0.0	29.6	39.6
Artemether Lumefantrine	8.4	0.9	0.0	9.2	1.3	2.0	26.0	0.1	0.0	29.3	38.6
Artesunate Amodiaquine	0.7	0.0	0.0	0.7	0.0	0.0	0.1	0.0	0.0	0.1	0.8
Dihydroartemisinin Piperazine	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.2
Other ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quality Assured ACT (QAACT)	9.1	0.7	0.0	9.7	1.3	0.3	24.2	0.1	0.0	25.9	35.6
Artemether Lumefantrine QAACT	8.3	0.7	0.0	9.0	1.3	0.3	24.1	0.1	0.0	25.8	34.8
Artesunate Amodiaquine QAACT	0.7	0.0	0.0	0.7	0.0	0.0	0.1	0.0	0.0	0.1	0.8
QAACT with the "green leaf" logo	2.8	0.0	0.0	2.8	1.1	0.3	14.4	0.1	0.0	15.9	18.7
Non-quality-assured ACT	0.1	0.2	0.0	0.3	0.0	1.8	1.9	0.0	0.0	3.7	4.1
Artemether Lumefantrine non-quality-assured ACT	0.0	0.2	0.0	0.3	0.0	1.7	1.9	0.0	0.0	3.6	3.8
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nationally Registered ACT	9.2	0.9	0.0	10.0	1.3	2.0	25.8	0.1	0.0	29.2	39.2
First-line ACT [‡]	9.1	0.9	0.0	10.0	1.3	2.0	26.1	0.1	0.0	29.4	39.4
2. Any non-artemisinin therapy	4.4	0.8	0.0	5.2	0.6	1.1	49.1	1.3	0.3	52.4	57.6
Chloroquine	0.1	0.2	0.0	0.3	0.2	0.7	20.6	0.2	0.3	22.0	22.4
Sulfadoxine-Pyrimethamine	4.3	0.6	0.0	4.9	0.3	0.4	27.9	1.1	0.0	29.7	34.5
Oral Quinine	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.4	0.4
Quinine IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.3
Amodiaquine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Oral artemisinin monotherapy	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.0	1.0
4. Non-oral artemisinin monotherapy	0.1	0.0	0.0	0.1	0.3	0.0	1.5	0.0	0.0	1.7	1.8
Artemether IV/IM	0.1	0.0	0.0	0.1	0.3	0.0	1.5	0.0	0.0	1.7	1.8
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.1	0.0	0.0	0.1	0.3	0.0	1.7	0.0	0.0	2.0	2.1
OUTLET TYPE TOTAL***	13.6	1.7	0.0	15.3	2.1	3.2	77.6	1.4	0.3	84.7	100.0

* A total of 7165.6 AETDs were reportedly sold or distributed in the previous seven days. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

** Row sum – market share for the specified antimalarial medicine.

*** Column sum – market share for the specified outlet type.

[‡] At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sums to 100% in the far-right column – antimalarial total column.

A total of 994 antimalarials were audited. Of these, 22 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B7.3: Antimalarial market share, North West Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not-for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ANTI-MALARIAL TOTAL**
	%	%	%	%	%	%	%	%	%	%	%
1. Any ACT	12.5	0.2	0.0	12.7	0.1	1.3	18.2	0.3	0.0	20.0	32.6
Artemether Lumefantrine	11.2	0.2	0.0	11.4	0.1	1.1	17.7	0.3	0.0	19.2	30.6
Artesunate Amodiaquine	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Dihydroartemisinin Piperazine	0.5	0.0	0.0	0.5	0.0	0.2	0.5	0.0	0.0	0.7	1.2
Other ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quality Assured ACT (QAACT)	11.6	0.2	0.0	11.7	0.0	0.6	16.1	0.3	0.0	17.1	28.8
Artemether Lumefantrine QAACT	10.8	0.2	0.0	11.0	0.0	0.6	16.1	0.3	0.0	17.1	28.0
Artesunate Amodiaquine QAACT	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8
QAACT with the "green leaf" logo	5.4	0.2	0.0	5.6	0.0	0.6	15.7	0.3	0.0	16.6	22.2
Non-quality-assured ACT	0.9	0.0	0.0	0.9	0.1	0.7	2.1	0.0	0.0	2.9	3.8
Artemether Lumefantrine non-quality-assured ACT	0.4	0.0	0.0	0.4	0.1	0.5	1.6	0.0	0.0	2.2	2.6
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nationally Registered ACT	12.0	0.2	0.0	12.1	0.0	1.3	18.3	0.3	0.0	20.0	32.1
First-line ACT [‡]	12.0	0.2	0.0	12.1	0.1	1.1	17.7	0.3	0.0	19.3	31.4
2. Any non-artemisinin therapy	9.4	1.4	0.0	10.7	0.2	3.1	48.1	0.0	0.2	51.5	62.3
Chloroquine	3.4	0.3	0.0	3.7	0.1	1.6	26.9	0.0	0.2	28.9	32.6
Sulfadoxine-Pyrimethamine	5.9	1.1	0.0	7.0	0.1	1.4	20.6	0.0	0.0	22.1	29.2
Oral Quinine	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.4
Quinine IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amodiaquine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Oral artemisinin monotherapy	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.0	0.0	1.3	1.3
4. Non-oral artemisinin monotherapy	1.3	0.0	0.0	1.3	0.0	0.0	2.4	0.0	0.0	2.4	3.8
Artemether IV/IM	1.2	0.0	0.0	1.3	0.0	0.0	2.4	0.0	0.0	2.4	3.7
Artesunate IV/IM	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5. Any treatment for severe malaria	1.3	0.0	0.0	1.3	0.0	0.0	2.4	0.0	0.0	2.4	3.7
OUTLET TYPE TOTAL***	23.2	1.6	0.0	24.7	0.3	4.4	69.9	0.3	0.2	75.3	100.0

* A total of 7,859.0 AETDs were reportedly sold or distributed in the previous seven days. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

** Row sum – market share for the specified antimalarial medicine.

*** Column sum – market share for the specified outlet type.

[‡] At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sums to 100% in the far-right column – antimalarial total column.

A total of 872 antimalarials were audited. Of these, 29 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B7.4: Antimalarial market share, South East Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ANTI-MALARIAL TOTAL**
	%	%	%	%	%	%	%	%	%	%	%
1. Any ACT	7.1	0.0	0.0	7.2	1.5	5.1	33.2	0.1	0.0	39.9	47.1
Artemether Lumefantrine	4.4	0.0	0.0	4.4	1.4	4.2	27.7	0.1	0.0	33.5	37.9
Artesunate Amodiaquine	2.6	0.0	0.0	2.6	0.1	0.0	2.0	0.0	0.0	2.1	4.8
Dihydroartemisinin Piperazine	0.1	0.0	0.0	0.1	0.0	0.4	3.4	0.0	0.0	3.9	4.0
Other ACT	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.4
Quality Assured ACT (QAACT)	7.0	0.0	0.0	7.0	0.8	0.9	25.6	0.1	0.0	27.3	34.3
Artemether Lumefantrine QAACT	4.3	0.0	0.0	4.3	0.7	0.8	24.0	0.1	0.0	25.6	30.0
Artesunate Amodiaquine QAACT	2.6	0.0	0.0	2.6	0.0	0.0	1.6	0.0	0.0	1.7	4.3
QAACT with the "green leaf" logo	0.8	0.0	0.0	0.8	0.6	0.8	16.4	0.0	0.0	17.9	18.7
Non-quality-assured ACT	0.2	0.0	0.0	0.2	0.7	4.3	7.6	0.0	0.0	12.7	12.8
Artemether Lumefantrine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.7	3.4	3.8	0.0	0.0	7.9	7.9
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.5	0.5
Nationally Registered ACT	7.1	0.0	0.0	7.2	1.4	4.4	32.8	0.1	0.0	38.7	45.9
First-line ACT [‡]	7.0	0.0	0.0	7.0	1.5	4.3	29.8	0.1	0.0	35.6	42.6
2. Any non-artemisinin therapy	0.4	0.0	0.0	0.4	0.7	1.5	47.3	0.1	0.0	49.5	49.9
Chloroquine	0.1	0.0	0.0	0.1	0.1	0.3	9.5	0.1	0.0	10.0	10.1
Sulfadoxine-Pyrimethamine	0.4	0.0	0.0	0.4	0.3	0.9	37.2	0.0	0.0	38.4	38.8
Oral Quinine	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.5	0.5
Quinine IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Amodiaquine	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.3
3. Oral artemisinin monotherapy	0.1	0.0	0.0	0.1	0.2	0.1	2.3	0.0	0.0	2.6	2.7
4. Non-oral artemisinin monotherapy	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.3	0.3
Artemether IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.3	0.3
OUTLET TYPE TOTAL***	7.6	0.0	0.0	7.7	2.4	6.8	83.0	0.1	0.0	92.3	100.0

* A total of 4,802.1 AETDs were reportedly sold or distributed in the previous seven days. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

** Row sum – market share for the specified antimalarial medicine.

*** Column sum – market share for the specified outlet type.

[‡] At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sums to 100% in the far-right column – antimalarial total column.

A total of 1,361 antimalarials were audited. Of these, 204 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B7.5: Antimalarial market share, South South Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ANTI-MALARIAL TOTAL**
	%	%	%	%	%	%	%	%	%	%	%
1. Any ACT	2.0	0.0	0.0	2.0	1.8	1.7	34.3	0.0	0.0	37.8	39.8
Artemether Lumefantrine	1.9	0.0	0.0	1.9	1.4	1.1	28.0	0.0	0.0	30.6	32.5
Artesunate Amodiaquine	0.1	0.0	0.0	0.1	0.0	0.1	2.3	0.0	0.0	2.4	2.5
Dihydroartemisinin Piperazine	0.0	0.0	0.0	0.0	0.4	0.3	3.9	0.0	0.0	4.7	4.7
Other ACT	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1
Quality Assured ACT (QAACT)	1.7	0.0	0.0	1.7	0.7	0.4	22.6	0.0	0.0	23.8	25.5
Artemether Lumefantrine QAACT	1.7	0.0	0.0	1.7	0.7	0.4	20.7	0.0	0.0	21.9	23.6
Artesunate Amodiaquine QAACT	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	1.9	1.9
QAACT with the "green leaf" logo	1.3	0.0	0.0	1.3	0.7	0.2	19.8	0.0	0.0	20.8	22.1
Non-quality-assured ACT	0.3	0.0	0.0	0.3	1.1	1.2	11.7	0.0	0.0	14.0	14.3
Artemether Lumefantrine non-quality-assured ACT	0.2	0.0	0.0	0.2	0.7	0.7	7.2	0.0	0.0	8.7	8.9
Artesunate Amodiaquine non-quality-assured ACT	0.1	0.0	0.0	0.1	0.0	0.1	0.4	0.0	0.0	0.5	0.6
Nationally Registered ACT	2.0	0.0	0.0	2.0	1.8	1.5	32.7	0.0	0.0	36.0	38.0
First-line ACT ^ψ	2.0	0.0	0.0	2.0	1.4	1.3	30.2	0.0	0.0	33.0	35.0
2. Any non-artemisinin therapy	2.1	0.0	0.0	2.1	1.2	0.9	51.8	0.1	0.0	53.9	56.0
Chloroquine	0.0	0.0	0.0	0.0	0.0	0.1	8.8	0.0	0.0	9.0	9.0
Sulfadoxine-Pyrimethamine	1.9	0.0	0.0	1.9	1.1	0.6	42.0	0.1	0.0	43.8	45.7
Oral Quinine	0.2	0.0	0.0	0.2	0.0	0.0	0.4	0.0	0.0	0.4	0.6
Quinine IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amodiaquine	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.4	0.4
3. Oral artemisinin monotherapy	0.1	0.0	0.0	0.1	0.1	0.1	3.7	0.0	0.0	3.9	4.0
4. Non-oral artemisinin monotherapy	0.2	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.2
Artemether IV/IM	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.2
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.2
OUTLET TYPE TOTAL***	4.3	0.0	0.0	4.3	3.1	2.7	89.8	0.1	0.0	95.7	100.0

* A total of 8844.9 AETDs were reportedly sold or distributed in the previous seven days. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

** Row sum – market share for the specified antimalarial medicine.

*** Column sum – market share for the specified outlet type.

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sums to 100% in the far-right column – antimalarial total column.

A total of 2,788 antimalarials were audited. Of these, 219 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B7.6: Antimalarial market share, South West Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ANTI-MALARIAL TOTAL**
	%	%	%	%	%	%	%	%	%	%	%
1. Any ACT	3.7	0.0	0.0	3.7	2.1	4.2	12.2	22.0	0.0	40.5	44.2
Artemether Lumefantrine	3.4	0.0	0.0	3.4	1.7	3.5	11.3	19.1	0.0	35.7	39.1
Artesunate Amodiaquine	0.2	0.0	0.0	0.2	0.3	0.3	0.6	0.0	0.0	1.2	1.4
Dihydroartemisinin Piperazine	0.0	0.0	0.0	0.0	0.0	0.4	0.3	2.5	0.0	3.2	3.2
Other ACT	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.5	0.5
Quality Assured ACT (QAACT)	3.7	0.0	0.0	3.7	1.9	2.2	10.9	13.4	0.0	28.4	32.0
Artemether Lumefantrine QAACT	3.4	0.0	0.0	3.4	1.6	2.1	10.4	13.4	0.0	27.4	30.9
Artesunate Amodiaquine QAACT	0.2	0.0	0.0	0.2	0.3	0.1	0.5	0.0	0.0	0.9	1.2
QAACT with the "green leaf" logo	3.7	0.0	0.0	3.7	1.9	1.9	10.3	12.6	0.0	26.6	30.3
Non-quality-assured ACT	0.0	0.0	0.0	0.0	0.2	2.0	1.3	8.6	0.0	12.2	12.2
Artemether Lumefantrine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.2	1.5	1.0	5.7	0.0	8.2	8.2
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.2	0.2
Nationally Registered ACT	3.7	0.0	0.0	3.7	2.1	3.8	11.9	19.5	0.0	37.3	40.9
First-line ACT [‡]	3.7	0.0	0.0	3.7	2.0	3.8	11.9	19.1	0.0	36.9	40.5
2. Any non-artemisinin therapy	0.2	0.0	0.0	0.2	1.5	5.0	27.6	18.3	0.0	52.4	52.6
Chloroquine	0.0	0.0	0.0	0.0	0.3	0.8	9.5	3.3	0.0	13.8	13.8
Sulfadoxine-Pyrimethamine	0.2	0.0	0.0	0.2	1.1	4.1	18.0	14.7	0.0	37.9	38.1
Oral Quinine	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Quinine IV/IM	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Amodiaquine	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.5	0.5
3. Oral artemisinin monotherapy	0.0	0.0	0.0	0.0	0.0	0.5	0.6	1.9	0.0	2.9	2.9
4. Non-oral artemisinin monotherapy	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.3
Artemether IV/IM	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.2
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.3
OUTLET TYPE TOTAL***	3.9	0.0	0.0	3.9	3.9	9.7	40.3	42.2	0.0	96.1	100.0

* A total of 17,729.8 AETDs were reportedly sold or distributed in the previous seven days. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

** Row sum – market share for the specified antimalarial medicine.

*** Column sum – market share for the specified outlet type.

[‡] At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sums to 100% in the far-right column – antimalarial total column.

A total of 4,056 antimalarials were audited. Of these, 224 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B8.1: Antimalarial market share, North Central Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	%	%	%	%	%	%	%	%	%	%
1. Any ACT	73.4	0.0	72.6	73.1	42.8	37.4	23.9	14.0	0.0	26.4
Artemether Lumefantrine	72.7	0.0	47.6	64.9	42.4	28.5	21.5	14.0	0.0	24.1
Artesunate Amodiaquine	0.7	0.0	25.0	8.2	0.4	5.1	1.9	0.0	0.0	1.8
Dihydroartemisinin Piperazine	0.0	0.0	0.0	0.0	0.0	1.7	0.5	0.0	0.0	0.4
Other ACT	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.1
Quality Assured ACT (QAACT)	72.1	0.0	33.3	60.1	41.1	21.3	21.5	11.8	0.0	23.4
Artemether Lumefantrine QAACT	71.4	0.0	8.2	51.9	40.7	17.3	20.0	11.8	0.0	22.0
Artesunate Amodiaquine QAACT	0.7	0.0	25.0	8.2	0.4	4.0	1.5	0.0	0.0	1.4
QAACT with the "green leaf" logo	72.1	0.0	0.0	49.8	41.1	13.7	20.4	11.8	0.0	22.2
Non-quality-assured ACT	1.3	0.0	39.3	13.1	1.7	16.1	2.4	2.2	0.0	3.0
Artemether Lumefantrine non-quality-assured ACT	1.3	0.0	39.3	13.1	1.7	11.2	1.5	2.2	0.0	2.1
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	1.1	0.4	0.0	0.0	0.4
Nationally Registered ACT	72.9	0.0	33.3	60.7	41.1	29.4	23.4	13.2	0.0	25.4
First-line ACT ^ψ	73.4	0.0	72.6	73.1	42.8	33.6	23.4	14.0	0.0	25.9
2. Any non-artemisinin therapy	24.0	0.0	27.4	25.1	54.9	58.0	73.5	86.0	0.0	71.1
Chloroquine	0.0	0.0	1.9	0.6	40.6	33.5	43.0	52.1	0.0	42.7
Sulfadoxine-Pyrimethamine	24.0	0.0	23.6	23.9	11.2	23.4	30.1	33.9	0.0	27.6
Oral Quinine	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.0	0.0	0.1
Quinine IV/IM	0.0	0.0	1.9	0.6	0.4	0.1	0.0	0.0	0.0	0.1
Amodiaquine	0.0	0.0	0.0	0.0	2.6	0.1	0.4	0.0	0.0	0.6
3. Oral artemisinin monotherapy	1.8	0.0	0.0	1.3	0.0	2.4	2.4	0.0	0.0	1.9
4. Non-oral artemisinin monotherapy	0.8	0.0	0.0	0.6	2.3	2.2	0.2	0.0	0.0	0.6
Artemether IV/IM	0.7	0.0	0.0	0.5	2.3	2.2	0.2	0.0	0.0	0.6
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.7	0.0	1.9	1.1	2.7	2.3	0.2	0.0	0.0	0.6

* AETDs reportedly sold or distributed in the previous seven days: 290.6 public health facility; 0 CHW; 61.7 private not-for-profit HF; 245.5 private for-profit HF; 581.6 pharmacy; 3475.5 drug store; 67.8 general retailer; 0 itinerant drug vendor. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sum to 100% within each column.

A total of 1,003 antimalarials were audited. Of these, 44 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information, including the following number of antimalarials by outlet type: 2 public health facility; 0 CHW; 1 private not-for-profit HF; 3 private for profit; 4 pharmacy; 34 drug store; 0 general retailer; 0 itinerant drug vendor.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B8.2: Antimalarial market share, North East Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	%	%	%	%	%	%	%	%	%	%
1. Any ACT	67.1	51.8	0.0	65.4	60.9	65.7	33.6	5.4	4.0	35.0
Artemether Lumefantrine	61.3	51.8	0.0	60.3	60.9	61.9	33.5	5.4	4.0	34.7
Artesunate Amodiaquine	5.3	0.0	0.0	4.7	0.0	0.0	0.1	0.0	0.0	0.1
Dihydroartemisinin Piperazine	0.5	0.0	0.0	0.4	0.0	3.8	0.1	0.0	0.0	0.2
Other ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quality Assured ACT (QAACT)	66.3	39.4	0.0	63.4	60.1	9.9	31.1	5.4	4.0	30.6
Artemether Lumefantrine QAACT	61.0	39.4	0.0	58.6	60.1	9.9	31.0	5.4	4.0	30.5
Artesunate Amodiaquine QAACT	5.3	0.0	0.0	4.7	0.0	0.0	0.1	0.0	0.0	0.1
QAACT with the "green leaf" logo	20.4	0.0	0.0	18.1	52.0	9.9	18.6	5.4	4.0	18.8
Non-quality-assured ACT	0.8	12.4	0.0	2.1	0.7	55.8	2.5	0.0	0.0	4.4
Artemether Lumefantrine non-quality-assured ACT	0.3	12.4	0.0	1.6	0.7	52.0	2.4	0.0	0.0	4.2
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nationally Registered ACT	67.1	51.8	0.0	65.4	60.9	62.5	33.2	5.4	4.0	34.4
First-line ACT ^ψ	66.6	51.8	0.0	65.0	60.9	61.9	33.6	5.4	4.0	34.8
2. Any non-artemisinin therapy	32.1	48.2	0.0	33.8	26.9	33.7	63.3	94.6	96.0	61.9
Chloroquine	0.7	13.3	0.0	2.1	10.1	21.7	26.6	17.2	83.8	26.0
Sulfadoxine-Pyrimethamine	31.3	34.9	0.0	31.7	13.7	11.8	35.9	77.5	12.2	35.0
Oral Quinine	0.0	0.0	0.0	0.0	1.0	0.0	0.4	0.0	0.0	0.4
Quinine IV/IM	0.0	0.0	0.0	0.0	2.0	0.0	0.3	0.0	0.0	0.4
Amodiaquine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Oral artemisinin monotherapy	0.2	0.0	0.0	0.2	0.0	0.5	1.2	0.0	0.0	1.1
4. Non-oral artemisinin monotherapy	0.7	0.0	0.0	0.6	12.2	0.1	1.9	0.0	0.0	2.0
Artemether IV/IM	0.7	0.0	0.0	0.6	12.2	0.0	1.9	0.0	0.0	2.0
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.7	0.0	0.0	0.6	14.3	0.0	2.2	0.0	0.0	2.4

* AETDs reportedly sold or distributed in the previous seven days: 529.4 public health facility; 36.4 CHW; 0 private not-for-profit HF; 229.3 private for-profit HF; 517.8 pharmacy; 5,762.3 drug store; 50.7 general retailer; 39.7 itinerant drug vendor. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sum to 100% within each column.

A total of 994 antimalarials were audited. Of these, 22 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information, including the following number of antimalarials by outlet type: 0 public health facility; 1 CHW; 0 private not-for-profit HF; 2 private for profit; 0 pharmacy; 19 drug store; 0 general retailer; 0 itinerant drug vendor.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B8.3: Antimalarial market share, North West Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	%	%	%	%	%	%	%	%	%	%
1. Any ACT	53.9	11.4	0.0	51.2	43.2	28.4	26.1	100.0	5.7	26.5
Artemether Lumefantrine	48.2	11.4	0.0	45.9	43.2	24.2	25.3	100.0	5.7	25.6
Artesunate Amodiaquine	3.4	0.0	0.0	3.2	0.0	0.0	0.1	0.0	0.0	0.1
Dihydroartemisinin Piperazine	2.3	0.0	0.0	2.2	0.0	4.2	0.7	0.0	0.0	0.9
Other ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quality Assured ACT (QAACT)	49.9	11.4	0.0	47.5	8.6	13.0	23.0	100.0	5.7	22.7
Artemether Lumefantrine QAACT	46.5	11.4	0.0	44.3	8.6	13.0	23.0	100.0	5.7	22.7
Artesunate Amodiaquine QAACT	3.4	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
QAACT with the "green leaf" logo	23.4	11.4	0.0	22.6	8.6	13.0	22.4	100.0	5.7	22.1
Non-quality-assured ACT	4.0	0.0	0.0	3.8	34.6	15.4	3.0	0.0	0.0	3.9
Artemether Lumefantrine non-quality-assured ACT	1.7	0.0	0.0	1.6	34.6	11.2	2.3	0.0	0.0	2.9
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Nationally Registered ACT	51.6	11.4	0.0	49.1	8.6	28.4	26.2	100.0	5.7	26.5
First-line ACT ^ψ	51.6	11.4	0.0	49.1	43.2	24.2	25.4	100.0	5.7	25.6
2. Any non-artemisinin therapy	40.4	87.0	0.0	43.4	51.1	70.1	68.7	0.0	94.3	68.5
Chloroquine	14.7	16.5	0.0	14.8	32.9	37.0	38.5	0.0	94.3	38.4
Sulfadoxine-Pyrimethamine	25.5	70.5	0.0	28.4	18.2	32.8	29.5	0.0	0.0	29.4
Oral Quinine	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.0	0.0	0.6
Quinine IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amodiaquine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Oral artemisinin monotherapy	0.0	0.0	0.0	0.0	3.4	1.2	1.8	0.0	0.0	1.7
4. Non-oral artemisinin monotherapy	5.6	1.6	0.0	5.4	2.2	0.3	3.5	0.0	0.0	3.2
Artemether IV/IM	5.3	1.6	0.0	5.1	2.2	0.2	3.4	0.0	0.0	3.2
Artesunate IV/IM	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	5.6	1.6	0.0	5.4	2.2	0.2	3.4	0.0	0.0	3.2

* AETDs reportedly sold or distributed in the previous seven days: 1306.0 public health facility; 92.2 CHW; 0 private not-for-profit HF; 97.66 private for-profit HF; 259.4 pharmacy; 6085.0 drug store; 9.8 general retailer; 9.0 itinerant drug vendor. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sum to 100% within each column.

A total of 872 antimalarials were audited. Of these, 29 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information, including the following number of antimalarials by outlet type: 2 public health facility; 0 CHW; 0 private not-for-profit HF; 1 private for profit; 1 pharmacy; 25 drug store; 0 general retailer; 0 itinerant drug vendor.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B8.4: Antimalarial market share, South East Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	%	%	%	%	%	%	%	%	%	%
1. Any ACT	93.7	77.7	0.0	93.6	61.2	75.2	40.0	51.8	0.0	43.2
Artemether Lumefantrine	57.4	77.7	0.0	57.4	58.4	62.2	33.4	51.8	0.0	36.3
Artesunate Amodiaquine	34.7	0.0	0.0	34.6	2.1	0.7	2.4	0.0	0.0	2.3
Dihydroartemisinin Piperazine	1.6	0.0	0.0	1.6	0.7	6.4	4.1	0.0	0.0	4.2
Other ACT	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.5
Quality Assured ACT (QAACT)	91.5	77.7	0.0	91.5	31.4	12.6	30.8	51.8	0.0	29.5
Artemether Lumefantrine QAACT	56.8	77.7	0.0	56.8	30.7	12.0	28.9	51.8	0.0	27.7
Artesunate Amodiaquine QAACT	34.7	0.0	0.0	34.6	0.7	0.5	1.9	0.0	0.0	1.8
QAACT with the "green leaf" logo	10.6	77.7	0.0	10.8	25.5	12.3	19.8	0.0	0.0	19.3
Non-quality-assured ACT	2.2	0.0	0.0	2.2	29.7	62.7	9.2	0.0	0.0	13.7
Artemether Lumefantrine non-quality-assured ACT	0.6	0.0	0.0	0.6	27.6	50.2	4.6	0.0	0.0	8.5
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	1.4	0.2	0.5	0.0	0.0	0.5
Nationally Registered ACT	93.7	77.7	0.0	93.6	56.4	65.2	39.6	51.8	0.0	41.9
First-line ACT ^ψ	92.1	77.7	0.0	92.1	60.4	62.9	35.9	51.8	0.0	38.5
2. Any non-artemisinin therapy	5.5	22.3	0.0	5.6	27.0	22.3	57.0	48.2	0.0	53.6
Chloroquine	0.8	22.3	0.0	0.9	4.1	4.7	11.5	48.2	0.0	10.8
Sulfadoxine-Pyrimethamine	4.7	0.0	0.0	4.7	13.6	13.5	44.8	0.0	0.0	41.6
Oral Quinine	0.0	0.0	0.0	0.0	7.6	0.2	0.3	0.0	0.0	0.5
Quinine IV/IM	0.0	0.0	0.0	0.0	1.0	0.0	0.1	0.0	0.0	0.1
Amodiaquine	0.0	0.0	0.0	0.0	0.5	1.1	0.3	0.0	0.0	0.3
3. Oral artemisinin monotherapy	0.8	0.0	0.0	0.8	7.9	2.2	2.8	0.0	0.0	2.8
4. Non-oral artemisinin monotherapy	0.0	0.0	0.0	0.0	3.9	0.3	0.2	0.0	0.0	0.3
Artemether IV/IM	0.0	0.0	0.0	0.0	1.5	0.1	0.2	0.0	0.0	0.3
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.0	0.0	0.0	0.0	2.6	0.2	0.3	0.0	0.0	0.3

* AETDs reportedly sold or distributed in the previous seven days: 169.5 public health facility; 1 CHW; 0 private not-for-profit HF; 164.3 private for-profit HF; 1,128.5 pharmacy; 3333.5 drug store; 5.3 general retailer; 0 itinerant drug vendor. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sum to 100% within each column.

A total of 1,361 antimalarials were audited. Of these, 204 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information, including the following number of antimalarials by outlet type: 17 public health facility; 1 CHW; 0 private not-for-profit HF; 8 private for profit; 36 pharmacy; 142 drug store; 0 general retailer; 0 itinerant drug vendor.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B8.5: Antimalarial market share, South South Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	%	%	%	%	%	%	%	%	%	%
1. Any ACT	46.6	0.0	0.0	46.6	58.6	63.0	38.1	26.5	0.0	39.5
Artemether Lumefantrine	44.9	0.0	0.0	44.9	46.1	42.7	31.1	26.5	0.0	31.9
Artesunate Amodiaquine	1.7	0.0	0.0	1.7	0.0	5.4	2.5	0.0	0.0	2.5
Dihydroartemisinin Piperazine	0.0	0.0	0.0	0.0	12.5	12.6	4.4	0.0	0.0	4.9
Other ACT	0.0	0.0	0.0	0.0	0.0	2.3	0.1	0.0	0.0	0.1
Quality Assured ACT (QAACT)	39.6	0.0	0.0	39.6	22.3	16.8	25.2	20.6	0.0	24.8
Artemether Lumefantrine QAACT	39.4	0.0	0.0	39.4	22.3	15.7	23.1	20.6	0.0	22.8
Artesunate Amodiaquine QAACT	0.2	0.0	0.0	0.2	0.0	1.1	2.1	0.0	0.0	2.0
QAACT with the "green leaf" logo	29.7	0.0	0.0	29.7	21.9	8.9	22.1	20.6	0.0	21.7
Non-quality-assured ACT	7.0	0.0	0.0	7.0	36.3	46.2	13.0	5.9	0.0	14.7
Artemether Lumefantrine non-quality-assured ACT	5.5	0.0	0.0	5.5	23.8	27.0	8.0	5.9	0.0	9.1
Artesunate Amodiaquine non-quality-assured ACT	1.6	0.0	0.0	1.6	0.0	4.3	0.5	0.0	0.0	0.5
Nationally Registered ACT	46.6	0.0	0.0	46.6	57.5	56.4	36.4	26.5	0.0	37.6
First-line ACT ^ψ	46.6	0.0	0.0	46.6	46.1	48.0	33.7	26.5	0.0	34.5
2. Any non-artemisinin therapy	48.2	0.0	0.0	48.2	38.8	31.9	57.6	73.0	0.0	56.3
Chloroquine	0.4	0.0	0.0	0.4	1.2	4.8	9.8	2.4	0.0	9.4
Sulfadoxine-Pyrimethamine	43.4	0.0	0.0	43.4	35.1	23.9	46.8	70.7	0.0	45.8
Oral Quinine	4.1	0.0	0.0	4.1	0.1	0.1	0.4	0.0	0.0	0.4
Quinine IV/IM	0.3	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0
Amodiaquine	0.0	0.0	0.0	0.0	2.3	0.3	0.3	0.0	0.0	0.4
3. Oral artemisinin monotherapy	1.4	0.0	0.0	1.4	2.4	4.6	4.2	0.5	0.0	4.1
4. Non-oral artemisinin monotherapy	3.8	0.0	0.0	3.8	0.2	0.6	0.1	0.0	0.0	0.1
Artemether IV/IM	2.8	0.0	0.0	2.8	0.1	0.4	0.1	0.0	0.0	0.1
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	3.1	0.0	0.0	3.1	0.2	0.4	0.1	0.0	0.0	0.1

* AETDs reportedly sold or distributed in the previous seven days: 237.7 public health facility; 0 CHW; 0 private not-for-profit HF; 227.7 private for-profit HF; 760.7 pharmacy; 7584.9 drug store; 34.0 general retailer; 0 itinerant drug vendor. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sum to 100% within each column.

A total of 2,788 antimalarials were audited. Of these, 219 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information, including the following number of antimalarials by outlet type: 9 public health facility; 0 CHW; 0 private not-for-profit HF; 49 private for profit; 50 pharmacy; 111 drug store; 0 general retailer; 0 itinerant drug vendor.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B8.6: Antimalarial market share, South West Zone

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private
	%	%	%	%	%	%	%	%	%	%
1. Any ACT	94.8	0.0	0.0	94.8	54.1	43.8	30.2	52.2	0.0	42.2
Artemether Lumefantrine	89.1	0.0	0.0	89.1	44.6	36.4	28.1	45.2	0.0	37.1
Artesunate Amodiaquine	5.7	0.0	0.0	5.7	8.2	3.1	1.4	0.0	0.0	1.2
Dihydroartemisinin Piperazine	0.0	0.0	0.0	0.0	0.6	3.7	0.7	6.0	0.0	3.3
Other ACT	0.0	0.0	0.0	0.0	0.7	0.6	0.0	0.9	0.0	0.5
Quality Assured ACT (QAACT)	94.8	0.0	0.0	94.8	48.3	22.7	26.9	31.8	0.0	29.5
Artemether Lumefantrine QAACT	89.1	0.0	0.0	89.1	40.4	21.4	25.7	31.8	0.0	28.5
Artesunate Amodiaquine QAACT	5.7	0.0	0.0	5.7	7.9	1.3	1.2	0.0	0.0	1.0
QAACT with the "green leaf" logo	94.8	0.0	0.0	94.8	47.8	19.9	25.4	29.8	0.0	27.7
Non-quality-assured ACT	0.0	0.0	0.0	0.0	5.8	21.1	3.3	20.3	0.0	12.6
Artemether Lumefantrine non-quality-assured ACT	0.0	0.0	0.0	0.0	4.1	15.0	2.4	13.4	0.0	8.6
Artesunate Amodiaquine non-quality-assured ACT	0.0	0.0	0.0	0.0	0.3	1.8	0.1	0.0	0.0	0.3
Nationally Registered ACT	94.8	0.0	0.0	94.8	53.1	39.4	29.5	46.1	0.0	38.7
First-line ACT ^ψ	94.8	0.0	0.0	94.8	52.8	39.5	29.5	45.2	0.0	38.3
2. Any non-artemisinin therapy	4.8	0.0	0.0	4.8	39.6	51.2	68.3	43.4	100.0	54.5
Chloroquine	0.0	0.0	0.0	0.0	7.8	8.1	23.4	7.8	0.0	14.4
Sulfadoxine-Pyrimethamine	4.8	0.0	0.0	4.8	28.8	42.2	44.5	34.9	100.0	39.5
Oral Quinine	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1
Quinine IV/IM	0.0	0.0	0.0	0.0	2.0	0.1	0.0	0.0	0.0	0.1
Amodiaquine	0.0	0.0	0.0	0.0	0.9	0.3	0.3	0.7	0.0	0.5
3. Oral artemisinin monotherapy	0.0	0.0	0.0	0.0	0.3	4.8	1.5	4.4	0.0	3.0
4. Non-oral artemisinin monotherapy	0.4	0.0	0.0	0.4	6.1	0.2	0.0	0.0	0.0	0.3
Artemether IV/IM	0.4	0.0	0.0	0.4	4.1	0.2	0.0	0.0	0.0	0.2
Artesunate IV/IM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Any treatment for severe malaria	0.4	0.0	0.0	0.4	6.1	0.3	0.0	0.0	0.0	0.3

* AETDs reportedly sold or distributed in the previous seven days: 422.9 public health facility; 0 CHW; 0 private not-for-profit HF; 831.9 private for-profit HF; 6,298.7 pharmacy; 8,303.2 drug store; 1,863.0 general retailer; 10 itinerant drug vendor. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Categories 1 through 4 sum to 100% within each column.

A total of 4,056 antimalarials were audited. Of these, 224 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information, including the following number of antimalarials by outlet type: 2 public health facility; 0 CHW; 0 private not-for-profit HF; 27 private for profit; 65 pharmacy; 122 drug store; 8 general retailer; 0 itinerant drug vendor.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B9: Provider case management knowledge and practices, by outlet type, across Geo-Political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
Proportion of providers who:	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Would refer an adult with symptoms of severe malaria to a health facility	-	NC N=1 NE N=2 NW N=2 SE N=2 SS N=0 SW N=0	-	NC N=1 NE N=2 NW N=2 SE N=2 SS N=0 SW N=0	-	NC N=3 NE N=3 NW N=1 SE N=7 SS N=8 SW N=28	NC N=87 NE N=96 NW N=85 SE N=97 SS N=193 SW N=278	NC N=4 NE N=6 NW N=6 SE N=2 SS N=2	NC N=0 NE N=8 NW N=5 SE N=0 SS N=0 SW N=1	NC N=94 NE N=113 NW N=97 SE N=106 SS N=203 SW N=363	NC N=95 NE N=115 NW N=99 SE N=108 SS N=203 SW N=363
Yes, would refer to health facility											
North Central	NA	100.0 -	NA	100.0 -	NA	97.6 (68.4, 99.9)	68.8 (50.5, 82.6)	69.6 (61.2, 76.8)	- -	69.5 (54.9, 81.0)	69.9 (55.1, 81.5)
North East	NA	100.0 -	NA	100.0 -	NA	65.8 (30.4, 89.4)	80.0 (63.2, 90.3)	100.0 -	97.6 (72.4, 99.8)	82.6 (66.8, 91.8)	84.2 (69.1, 92.6)
North West	NA	0.0 -	NA	0.0 -	NA	100.0 -	74.5 (60.8, 84.7)	53.8 (9.2, 93.0)	100.0 -	73.6 (57.0, 85.5)	72.0 (55.4, 84.2)
South East	NA	65.4 (9.0, 97.3)	NA	65.4 (9.0, 97.3)	NA	23.4 (3.9, 69.8)	45.5 (35.8, 55.5)	0.0 -	- -	44.3 (35.0, 54.1)	44.8 (35.4, 54.5)
South South	NA	- -	NA	- -	NA	22.3 (11.4, 39.1)	52.4 (41.3, 63.4)	100.0 -	- -	53.2 (42.0, 64.0)	53.2 (42.0, 64.1)
South West	NA	- -	NA	- -	NA	68.4 (48.8, 83.1)	56.7 (46.3, 66.5)	82.5 (55.4, 94.7)	100.0 -	61.0 (51.3, 69.9)	61.0 (51.3, 69.9)
Would recommend that a client with a negative malaria blood test take an antimalarial	NC N=103 NE N=107 NW N=109 SE N=102 SS N=80 SW N=143	NC N=1 NE N=1 NW N=2 SE N=0 SS N=0 SW N=0	NC N=2 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=106 NE N=108 NW N=111 SE N=102 SS N=80 SW N=143	NC N=9 NE N=7 NW N=3 SE N=19 SS N=14 SW N=36	NC N=1 NE N=3 NW N=1 SE N=4 SS N=3 SW N=12	NC N=35 NE N=47 NW N=44 SE N=29 SS N=91 SW N=49	NC N=3 NE N=0 NW N=1 SE N=2 SS N=1 SW N=3	NC N=0 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=48 NE N=57 NW N=49 SE N=54 SS N=109 SW N=100	NC N=154 NE N=165 NW N=160 SE N=156 SS N=189 SW N=243
Yes – sometimes											
North Central	65.9 (25.9, 91.5)	0.0 -	67.7 (9.9, 97.6)	63.5 (29.9, 87.7)	66.6 (37.8, 86.7)	0.0 -	26.4 (9.8, 54.3)	87.4 (26.6, 99.3)	- -	47.9 (34.2, 62.0)	53.2 (35.0, 70.7)
North East	24.1 (5.9, 61.7)	0.0 -	- -	22.8 (5.6, 59.4)	15.0 (2.4, 55.4)	34.2 (10.6, 69.6)	34.1 (20.5, 51.1)	- -	- -	32.5 (19.2, 49.2)	28.4 (13.3, 50.6)
North West	24.0 (8.0, 53.4)	0.0 -	- -	27.6 (10.4, 55.7)	59.3 (36.0, 79.0)	100.0 -	34.6 (21.5, 50.6)	0.0 -	- -	31.8 (17.7, 50.2)	29.6 (16.4, 47.6)
South East	43.8 (14.1, 78.6)	- -	- -	43.8 (14.1, 78.6)	48.9 (24.2, 74.1)	21.8 (3.4, 69.1)	38.1 (20.9, 58.8)	100.0 -	- -	42.8 (27.7, 59.4)	43.0 (29.6, 57.5)
South South	19.4 (6.7, 44.8)	- -	- -	19.4 (6.7, 44.8)	16.6 (3.0, 55.9)	33.3 -	20.9 (10.2, 38.1)	0.0 -	- -	19.8 (10.3, 34.7)	19.7 (10.6, 33.8)
South West	52.6 (15.6, 86.9)	- -	- -	52.6 (15.6, 86.9)	32.0 (6.8, 75.1)	0.0 -	46.6 (24.1, 70.5)	59.3 (7.4, 96.4)	- -	40.6 (31.0, 51.1)	43.2 (28.5, 59.2)

Table B9: Provider case management knowledge and practices, by outlet type, across Geo-Political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
Proportion of providers who:	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Yes – always											
North Central	1.4 (0.4, 4.6)	0.0 -	32.3 (2.4, 90.1)	8.9 (1.3, 42.9)	4.3 (0.4, 35.3)	0.0 -	0.0 -	0.0 -	- -	1.3 (0.1, 10.2)	3.9 (0.7, 17.7)
North East	2.2 (0.3, 14.9)	0.0 -	- -	2.1 (0.3, 14.1)	13.2 (1.7, 58.0)	0.0 -	2.3 (0.4, 11.3)	- -	- -	3.2 (0.9, 11.1)	2.7 (0.7, 10.5)
North West	4.2 (0.6, 25.5)	0.0 -	- -	4.0 (0.5, 24.4)	0.0 -	0.0 -	6.1 (0.9, 31.2)	0.0 -	- -	5.0 (0.8, 26.4)	4.5 (1.2, 15.3)
South East	5.7 (0.8, 29.9)	- -	- -	5.7 (0.8, 29.9)	0.0 -	0.0 -	0.0 -	0.0 -	- -	0.0 -	1.3 (0.2, 7.3)
South South	0.3 (0.0, 2.6)	- -	- -	0.3 (0.0, 2.6)	2.1 (0.2, 16.3)	0.0 -	0.7 (0.1, 3.1)	0.0 -	- -	0.8 (0.2, 3.7)	0.7 (0.2, 3.0)
South West	1.2 (0.3, 4.0)	- -	- -	1.2 (0.3, 4.0)	1.3 (0.2, 7.7)	0.0 -	0.0 -	0.0 -	- -	0.5 (0.1, 2.6)	0.6 (0.2, 2.0)
Circumstances cited for recommending antimalarial treatment to a client who tested negative for malaria: *	NC N=57 NE N=29 NW N=36 SE N=45 SS N=21 SW N=56	NC N=0 NE N=0 NW N=2 SE N=0 SS N=0 SW N=0	NC N=2 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=59 NE N=29 NW N=38 SE N=45 SS N=21 SW N=56	NC N=8 NE N=3 NW N=2 SE N=9 SS N=4 SW N=16	NC N=0 NE N=1 NW N=1 SE N=2 SS N=1 SW N=0	NC N=10 NE N=14 NW N=13 SE N=10 SS N=22 SW N=22	NC N=2 NE N=0 NW N=0 SE N=2 SS N=0 SW N=1	NC N=0 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=20 NE N=28 NW N=16 SE N=23 SS N=27 SW N=39	NC N=79 NE N=47 NW N=54 SE N=68 SS N=48 SW N=95
Patient has signs and symptoms of malaria.											
North Central	99.8 (97.7, 100.0)	- -	100.0 -	99.9 (98.7, 100.0)	85.4 (34.0, 98.5)	- -	100.0 -	100.0 -	- -	93.8 (64.1, 99.2)	96.4 (76.5, 99.6)
North East	100.0 -	- -	- -	100.0 -	74.5 (16.4, 97.8)	100.0 -	100.0 -	- -	- -	98.2 (85.8, 99.8)	98.8 (89.4, 99.9)
North West	100.0 -	100.0 -	- -	100.0 -	100.0 -	100.0 -	100.0 -	- -	- -	100.0 -	100.0 -
South East	100.0 -	- -	- -	100.0 -	100.0 -	100.0 -	100.0 -	100.0 -	- -	100.0 -	100.0 -
South South	90.1 (43.8, 99.1)	- -	- -	90.1 (43.8, 99.1)	100.0 -	100.0 -	91.1 (51.6, 99.0)	- -	- -	92.2 (55.6, 99.1)	91.9 (60.1, 98.8)
South West	99.7 (96.8, 100.0)	- -	- -	99.7 (96.8, 100.0)	95.5 (75.9, 99.3)	- -	59.9 (12.5, 94.0)	100.0 -	- -	70.1 (22.2, 95.1)	78.0 (28.7, 96.9)

Table B9: Provider case management knowledge and practices, by outlet type, across Geo-Political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
Proportion of providers who:	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Provider doesn't trust the test results.											
North Central	0.4 (0.1, 2.4)	- -	0.0 -	0.3 (0.1, 1.4)	0.0 -	- -	0.0 -	0.0 -	- -	0.0 -	0.1 (0.0, 0.5)
North East	0.6 (0.1, 5.3)	- -	- -	0.6 (0.1, 5.3)	53.1 (7.2, 94.3)	0.0 -	24.5 (3.8, 72.9)	- -	- -	26.0 (5.2, 69.0)	17.5 (4.4, 49.6)
North West	55.9 (17.1, 88.6)	0.0 -	- -	47.5 (13.3, 84.2)	0.0 -	0.0 -	0.0 -	- -	- -	0.0 -	22.8 (5.2, 61.2)
South East	51.2 (11.1, 89.8)	- -	- -	51.2 (11.1, 89.8)	0.0 -	0.0 -	1.8 (0.2, 16.0)	0.0 -	- -	1.1 (0.1, 8.8)	13.4 (1.9, 54.9)
South South	26.1 (4.4, 73.0)	- -	- -	26.1 (4.4, 73.0)	11.2 (1.1, 58.4)	0.0 -	20.2 (4.7, 56.2)	- -	- -	19.0 (5.4, 49.0)	20.0 (6.4, 48.0)
South West	3.5 (0.6, 17.4)	- -	- -	3.5 (0.6, 17.4)	10.6 (1.9, 42.6)	- -	38.0 (5.1, 87.4)	0.0 -	- -	30.0 (5.0, 77.9)	23.0 (3.5, 71.3)
When the patient asks for antimalarial treatment.											
North Central	0.4 (0.0, 3.7)	- -	0.0 -	0.3 (0.0, 2.1)	0.0 -	- -	39.3 (6.0, 86.9)	0.0 -	- -	10.6 (1.2, 53.8)	6.1 (0.7, 38.6)
North East	0.6 (0.3, 1.1)	- -	- -	0.6 (0.3, 1.1)	27.6 (2.5, 85.2)	0.0 -	13.8 (1.9, 57.2)	- -	- -	14.5 (2.5, 52.6)	9.9 (1.6, 41.9)
North West	0.0 -	0.0 -	- -	0.0 -	0.0 -	0.0 -	12.8 (1.8, 53.6)	- -	- -	11.5 (1.6, 50.7)	6.0 (0.7, 35.0)
South East	1.0 (0.2, 5.8)	- -	- -	1.0 (0.2, 5.8)	0.0 -	0.0 -	4.4 (0.7, 22.0)	0.0 -	- -	2.5 (0.5, 12.3)	2.2 (0.5, 8.9)
South South	1.0 (0.1, 10.1)	- -	- -	1.0 (0.1, 10.1)	64.5 (11.9, 96.1)	100.0 -	12.3 (2.5, 43.9)	- -	- -	18.7 (3.6, 58.5)	16.2 (3.0, 54.7)
South West	0.5 (0.0, 6.2)	- -	- -	0.5 (0.0, 6.2)	1.1 (0.1, 12.3)	- -	4.3 (0.5, 30.2)	0.0 -	- -	3.4 (0.5, 20.8)	2.6 (0.4, 16.5)

Table B9: Provider case management knowledge and practices, by outlet type, across Geo-Political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
Proportion of providers who:	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Other (all other reasons)											
North Central	14.7 (1.7, 63.7)	- -	0.0 -	9.7 (1.3, 46.2)	20.7 (3.2, 67.5)	- -	0.7 (0.1, 6.6)	0.0 -	- -	8.9 (1.8, 34.3)	9.3 (1.6, 38.6)
North East	37.8 (4.1, 89.6)	- -	- -	37.8 (4.1, 89.6)	74.5 (16.4, 97.8)	0.0 -	2.0 (0.2, 16.9)	- -	- -	7.0 (1.6, 25.8)	17.3 (4.2, 49.8)
North West	0.2 (0.0, 1.7)	0.0 -	- -	0.1 (0.0, 1.0)	0.0 -	0.0 -	2.2 (0.2, 19.3)	- -	- -	2.0 (0.2, 17.3)	1.1 (0.1, 8.5)
South East	0.8 (0.1, 7.7)	- -	- -	0.8 (0.1, 7.7)	0.0 -	0.0 -	0.0 -	0.0 -	- -	0.0 -	0.2 (0.0, 1.5)
South South	1.8 (0.2, 12.9)	- -	- -	1.8 (0.2, 12.9)	0.0 -	0.0 -	0.2 (0.0, 1.7)	- -	- -	0.2 (0.0, 1.5)	0.4 (0.1, 1.6)
South West	2.1 (0.3, 13.9)	- -	- -	2.1 (0.3, 13.9)	6.2 (0.9, 32.1)	- -	1.1 (0.1, 10.6)	0.0 -	- -	2.5 (0.6, 9.6)	2.4 (0.7, 8.5)

Provider questions were administered to one staff member working in each outlet eligible for a full interview (current/recent antimalarial-stocking outlets or outlets providing malaria blood testing).

* 3 providers were missing information on circumstances for recommending antimalarials to clients who tested negative for malaria.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table B10: Provider antimalarial treatment knowledge and practices, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of providers who:	NC N=106 NE N=115 NW N=118 SE N=115 SS N=86 SW N=169	NC N=1 NE N=2 NW N=2 SE N=2 SS N=0 SW N=0	NC N=4 NE N=0 NW N=0 SE N=0 SS N=0 SW N=0	NC N=111 NE N=117 NW N=120 SE N=117 SS N=86 SW N=169	NC N=8 NE N=6 NW N=2 SE N=13 SS N=14 SW N=36	NC N=3 NE N=3 NW N=1 SE N=7 SS N=8 SW N=28	NC N=87 NE N=96 NW N=85 SE N=98 SS N=195 SW N=284	NC N=4 NE N=6 NW N=6 SE N=2 SS N=2 SW N=56	NC N=0 NE N=8 NW N=5 SE N=0 SS N=0 SW N=1	NC N=102 NE N=119 NW N=99 SE N=120 SS N=219 SW N=405	NC N=213 NE N=236 NW N=219 SE N=237 SS N=305 SW N=574
Correctly state the national first-line treatment ^ψ for uncomplicated malaria											
North Central	89.3 (54.0, 98.3)	100.0 -	66.5 (35.8, 87.6)	80.7 (50.5, 94.5)	22.6 (3.5, 69.9)	100.0 -	48.2 (27.9, 69.1)	0.0 -	- -	38.5 (19.6, 61.7)	49.4 (34.4, 64.5)
North East	96.3 (86.5, 99.1)	22.9 (1.3, 86.7)	- -	82.1 (49.0, 95.6)	83.8 (38.2, 97.7)	68.4 (9.0, 97.9)	86.8 (72.3, 94.3)	21.7 (3.5, 67.6)	18.4 (8.2, 36.2)	77.6 (66.1, 86.0)	79.1 (67.5, 87.3)
North West	94.4 (80.3, 98.6)	100.0 -	- -	94.7 (81.0, 98.7)	100.0 -	100.0 -	63.1 (47.4, 76.5)	65.7 (22.6, 92.6)	19.6 (2.5, 69.7)	61.3 (45.6, 75.0)	72.6 (59.8, 82.6)
South East	98.1 (94.2, 99.4)	100.0 -	- -	98.4 (95.0, 99.5)	77.4 (46.2, 93.2)	100.0 -	75.7 (61.0, 86.2)	50.0 -	- -	76.0 (63.0, 85.5)	78.8 (68.1, 86.7)
South South	99.0 (97.1, 99.7)	- -	- -	99.0 (97.1, 99.7)	65.4 (29.5, 89.6)	86.2 (77.6, 91.8)	74.4 (65.4, 81.8)	7.2 (0.4, 60.1)	- -	72.6 (62.8, 80.7)	75.3 (66.2, 82.6)
South West	63.3 (18.0, 93.1)	- -	- -	63.3 (18.0, 93.1)	34.5 (9.4, 72.9)	69.3 (52.9, 81.9)	52.4 (40.9, 63.7)	74.0 (39.1, 92.7)	0.0 -	53.4 (42.3, 64.2)	54.2 (44.1, 64.0)
Correctly state the first-line dosing regimen for an adult											
North Central	82.4 (47.6, 96.0)	100.0 -	66.5 (35.8, 87.6)	76.8 (49.8, 91.6)	22.6 (3.5, 69.9)	100.0 -	40.0 (21.1, 62.5)	0.0 -	- -	32.9 (16.2, 55.5)	44.2 (31.2, 58.1)
North East	85.1 (48.6, 97.2)	22.9 (1.3, 86.7)	- -	73.0 (44.3, 90.2)	28.5 (2.7, 85.0)	68.4 (9.0, 97.9)	60.2 (43.1, 75.1)	6.7 (0.8, 40.1)	18.4 (8.2, 36.2)	52.0 (38.2, 65.6)	59.0 (52.1, 65.5)
North West	86.1 (62.0, 95.9)	100.0 -	- -	86.7 (63.3, 96.1)	68.6 (9.6, 97.8)	100.0 -	50.5 (35.3, 65.5)	46.2 (7.0, 90.8)	19.6 (2.5, 69.7)	48.6 (34.1, 63.4)	61.5 (46.6, 74.5)
South East	96.1 (90.6, 98.4)	34.6 (2.7, 91.0)	- -	88.0 (58.7, 97.4)	57.7 (40.4, 73.3)	76.6 (21.8, 97.5)	57.0 (41.3, 71.3)	50.0 -	- -	57.3 (44.3, 69.4)	61.2 (49.2, 72.0)
South South	98.2 (95.2, 99.3)	- -	- -	98.2 (95.2, 99.3)	61.8 (28.1, 87.0)	30.8 (8.0, 69.6)	63.9 (56.4, 70.8)	7.2 (0.4, 60.1)	- -	62.3 (54.1, 69.8)	65.9 (58.3, 72.8)
South West	62.9 (18.0, 92.9)	- -	- -	62.9 (18.0, 92.9)	32.6 (8.5, 71.6)	49.5 (33.5, 65.6)	46.6 (34.7, 58.9)	73.1 (38.6, 92.2)	0.0 -	48.5 (38.3, 59.0)	49.7 (40.6, 58.9)

Table B10: Provider antimalarial treatment knowledge and practices, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Correctly state the first-line dosing regimen for a child											
North Central	87.6 (55.4, 97.6)	100.0 -	16.0 (1.3, 73.9)	59.8 (21.1, 89.2)	12.2 (1.7, 53.0)	100.0 -	39.1 (20.3, 61.7)	0.0 -	- -	30.6 (14.8, 52.9)	38.1 (22.9, 56.1)
North East	84.8 (48.3, 97.1)	0.0 -	- -	68.4 (41.6, 86.8)	76.1 (29.4, 96.0)	68.4 (9.0, 97.9)	60.0 (42.8, 75.0)	13.5 (1.4, 63.2)	18.4 (8.2, 36.2)	54.8 (41.1, 67.7)	59.3 (50.0, 67.9)
North West	89.1 (73.6, 96.0)	50.0 -	- -	87.5 (72.4, 94.9)	68.6 (9.6, 97.8)	100.0 -	49.3 (35.3, 63.4)	46.2 (7.0, 90.8)	19.6 (2.5, 69.7)	47.7 (34.9, 60.8)	61.1 (48.1, 72.8)
South East	88.3 (69.3, 96.2)	34.6 (2.7, 91.0)	- -	81.2 (55.2, 93.8)	55.7 (38.6, 71.5)	65.5 (24.1, 91.9)	66.5 (49.2, 80.3)	50.0 -	- -	65.3 (50.2, 77.8)	67.3 (54.6, 77.8)
South South	97.2 (93.4, 98.9)	- -	- -	97.2 (93.4, 98.9)	61.8 (28.1, 87.0)	44.7 (20.7, 71.4)	60.6 (46.4, 73.3)	7.2 (0.4, 60.1)	- -	59.4 (45.9, 71.5)	63.2 (49.7, 74.9)
South West	60.9 (18.0, 91.7)	- -	- -	60.9 (18.0, 91.7)	13.6 (4.7, 33.5)	60.2 (40.9, 76.7)	36.8 (22.5, 53.8)	73.5 (38.8, 92.4)	0.0 -	39.4 (26.7, 53.7)	41.2 (29.2, 54.3)
Report an ACT as the most effective antimalarial medicine for an adult											
North Central	87.7 (46.9, 98.3)	100.0 -	49.4 (26.9, 72.2)	73.0 (44.1, 90.2)	31.3 (4.4, 81.6)	100.0 -	62.3 (42.1, 79.0)	69.6 (61.2, 76.8)	- -	59.0 (42.9, 73.5)	62.7 (49.0, 74.5)
North East	97.1 (90.1, 99.2)	0.0 -	- -	78.3 (48.6, 93.2)	28.5 (2.7, 85.0)	68.4 (9.0, 97.9)	77.6 (58.7, 89.5)	21.7 (3.5, 67.6)	50.0 -	68.7 (52.2, 81.4)	71.9 (59.4, 81.7)
North West	94.4 (78.3, 98.8)	100.0 -	- -	94.7 (79.2, 98.8)	100.0 -	100.0 -	60.8 (42.8, 76.3)	74.8 (30.4, 95.3)	19.6 (2.5, 69.7)	60.8 (42.6, 76.4)	72.3 (55.5, 84.4)
South East	98.6 (95.2, 99.6)	100.0 -	- -	98.8 (96.2, 99.6)	61.0 (42.3, 77.0)	67.2 (14.9, 96.0)	75.6 (58.5, 87.2)	50.0 -	- -	73.8 (58.8, 84.7)	76.9 (65.1, 85.6)
South South	90.4 (59.9, 98.4)	- -	- -	90.4 (59.9, 98.4)	79.7 (43.9, 95.2)	77.7 (60.9, 88.6)	67.7 (53.2, 79.4)	7.2 (0.4, 60.1)	- -	67.1 (53.5, 78.4)	69.5 (57.4, 79.3)
South West	89.7 (63.7, 97.8)	- -	- -	89.7 (63.7, 97.8)	74.0 (29.6, 95.1)	80.0 (58.8, 91.8)	53.4 (43.8, 62.8)	86.0 (69.9, 94.2)	0.0 -	60.6 (50.0, 70.4)	63.1 (52.7, 72.3)

Table B10: Provider antimalarial treatment knowledge and practices, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Report an ACT as the most effective antimalarial medicine for a child											
North Central	90.6 (54.0, 98.7)	100.0 -	16.0 (1.3, 73.9)	61.4 (21.4, 90.3)	85.3 (39.0, 98.1)	100.0 -	72.7 (52.3, 86.6)	39.2 (25.0, 55.5)	- -	70.7 (45.7, 87.3)	68.3 (54.1, 79.7)
North East	77.6 (32.3, 96.2)	22.9 (1.3, 86.7)	- -	67.0 (19.6, 94.4)	84.4 (39.5, 97.8)	68.4 (9.0, 97.9)	70.2 (53.4, 82.9)	21.7 (3.5, 67.6)	66.0 (46.8, 81.0)	65.9 (51.7, 77.7)	66.3 (48.0, 80.7)
North West	90.8 (73.3, 97.3)	50.0 -	- -	89.0 (72.6, 96.1)	100.0 -	100.0 -	55.8 (39.2, 71.2)	74.8 (30.4, 95.3)	19.6 (2.5, 69.7)	56.8 (40.3, 71.9)	67.7 (52.1, 80.2)
South East	98.9 (96.9, 99.6)	100.0 -	- -	99.1 (97.6, 99.6)	82.4 (50.1, 95.6)	100.0 -	74.9 (53.6, 88.5)	50.0 -	- -	75.7 (56.6, 88.2)	78.7 (61.2, 89.6)
South South	89.8 (61.2, 98.0)	- -	- -	89.8 (61.2, 98.0)	92.9 (68.7, 98.7)	86.2 (77.6, 91.8)	73.9 (64.1, 81.8)	100.0 -	- -	75.6 (66.3, 83.0)	77.0 (69.0, 83.5)
South West	91.9 (64.0, 98.6)	- -	- -	91.9 (64.0, 98.6)	73.7 (29.5, 94.9)	80.9 (62.3, 91.6)	57.8 (46.7, 68.2)	93.2 (78.1, 98.1)	0.0 -	64.8 (52.9, 75.1)	67.1 (55.1, 77.1)
Report an ACT as the antimalarial he/she most commonly recommends for adults											
North Central	87.0 (43.2, 98.3)	100.0 -	49.4 (26.9, 72.2)	71.9 (42.4, 89.9)	26.9 (3.5, 79.0)	100.0 -	53.0 (35.4, 69.9)	69.6 (61.2, 76.8)	- -	51.9 (39.1, 64.4)	57.0 (44.9, 68.3)
North East	97.3 (85.8, 99.5)	0.0 -	- -	78.0 (47.7, 93.2)	28.5 (2.7, 85.0)	68.4 (9.0, 97.9)	82.7 (62.4, 93.2)	21.7 (3.5, 67.6)	70.1 (56.0, 81.1)	73.1 (61.9, 82.0)	74.8 (64.0, 83.2)
North West	98.0 (92.0, 99.5)	100.0 -	- -	98.0 (92.4, 99.5)	100.0 -	100.0 -	60.5 (34.5, 81.6)	63.5 (15.6, 94.2)	19.6 (2.5, 69.7)	58.8 (35.8, 78.5)	73.2 (53.3, 86.7)
South East	93.4 (68.6, 98.9)	100.0 -	- -	94.3 (74.1, 99.0)	72.8 (44.7, 89.9)	63.1 (13.0, 95.1)	80.8 (66.9, 89.8)	50.0 -	- -	79.4 (67.6, 87.7)	81.4 (71.9, 88.2)
South South	99.0 (96.2, 99.8)	- -	- -	99.0 (96.2, 99.8)	66.5 (15.8, 95.5)	72.3 (56.5, 84.0)	76.9 (64.4, 86.0)	7.2 (0.4, 60.1)	- -	74.7 (62.2, 84.2)	77.3 (66.7, 85.3)
South West	92.1 (63.1, 98.8)	- -	- -	92.1 (63.1, 98.8)	45.8 (13.2, 82.4)	66.1 (43.6, 83.1)	69.0 (55.9, 79.7)	82.6 (55.2, 94.8)	0.0 -	68.0 (56.8, 77.4)	70.1 (58.3, 79.7)

Table B10: Provider antimalarial treatment knowledge and practices, by outlet type, across Geo-political Zones

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Report an ACT as the antimalarial he/she most commonly recommends for children											
North Central	87.2 (47.7, 98.1)	100.0 -	16.0 (1.3, 73.9)	59.5 (20.8, 89.2)	26.9 (3.5, 79.0)	97.6 (68.4, 99.9)	51.3 (31.1, 71.0)	8.8 (0.5, 64.8)	- -	- -	46.8 (31.0, 63.4)
North East	77.7 (32.2, 96.2)	22.9 (1.3, 86.7)	- -	67.1 (19.6, 94.5)	36.9 (4.9, 87.0)	68.4 (9.0, 97.9)	70.6 (55.0, 82.5)	21.7 (3.5, 67.6)	55.2 (18.6, 86.8)	63.6 (49.7, 75.5)	64.8 (46.9, 79.2)
North West	94.0 (79.3, 98.5)	50.0 -	- -	92.1 (78.3, 97.4)	31.4 (2.2, 90.4)	100.0 -	58.7 (41.0, 74.4)	63.5 (15.6, 94.2)	19.6 (2.5, 69.7)	57.2 (40.7, 72.3)	69.0 (53.3, 81.4)
South East	98.8 (96.4, 99.6)	100.0 -	- -	98.9 (97.3, 99.6)	63.8 (45.3, 79.0)	100.0 -	76.1 (65.6, 84.2)	50.0 -	- -	75.1 (65.2, 82.9)	78.1 (69.3, 85.0)
South South	98.2 (95.9, 99.2)	- -	- -	98.2 (95.9, 99.2)	77.1 (44.5, 93.4)	86.2 (77.6, 91.8)	69.4 (57.1, 79.4)	100.0 -	- -	70.6 (59.4, 79.7)	73.4 (64.0, 81.1)
South West	91.0 (64.6, 98.3)	- -	- -	91.0 (64.6, 98.3)	69.9 (28.3, 93.2)	86.1 (65.8, 95.2)	59.0 (50.0, 67.5)	85.3 (55.7, 96.4)	0.0 -	64.4 (54.1, 73.4)	66.6 (56.9, 75.1)

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Numbers of providers (N) in this table are the total number of providers eligible for table indicators. The number of providers with missing information include:

13 providers were missing information on the national first-line treatment, 13 and 13 providers were missing information on the first-line dosing regimen for adults and children respectively, 22 and 22 providers were missing information on the most effective antimalarial medicine for adults and children respectively, 115 and 30 providers were missing information on the most often recommended antimalarial for adults and children respectively

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Results Section C: Core indicators by Type of Public Health Facility

Table C1: Availability of antimalarials, among screened outlets, by type of public health facility				
	University Hospital/Federal Medical Centre	General Hospital/Specialist	Primary Health Care/Comprehensive Health Centre	ALL Public Health Facilities
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	N=8	N=34	N=681	N=723
Any antimalarial at the time of survey visit	46.5 (9.3, 88.1)	99.7 (98.0, 100.0)	91.2 (78.0, 96.8)	91.5 (79.0, 96.8)
Any ACT	46.5 (9.3, 88.1)	72.4 (24.0, 95.6)	78.2 (61.3, 89.0)	77.8 (61.7, 88.4)
Artemether Lumefantrine (AL)	46.5 (9.3, 88.1)	72.4 (24.0, 95.6)	76.5 (59.5, 87.8)	76.2 (59.9, 87.3)
Artesunate Amodiaquine (ASAQ)	8.0 (0.8, 46.9)	6.1 (1.5, 20.9)	21.3 (12.6, 33.7)	20.6 (12.3, 32.4)
Dihydroartemisinin Piperaquine (DHA PPQ)	23.1 (4.9, 63.8)	11.0 (1.8, 45.6)	0.7 (0.2, 2.2)	1.2 (0.4, 3.3)
Other ACT	4.0 (0.4, 28.8)	0.4 (0.1, 1.7)	0.0 (0.0, 0.1)	0.0 (0.0, 0.1)
Quality Assured ACT (QAACT)	43.0 (8.8, 85.5)	58.2 (20.7, 88.1)	77.6 (60.9, 88.5)	76.6 (60.8, 87.4)
QA AL	43.0 (8.8, 85.5)	58.2 (20.7, 88.1)	75.9 (59.0, 87.3)	75.0 (59.0, 86.2)
QA ASAQ	8.0 (0.8, 46.9)	2.6 (1.0, 6.6)	21.2 (12.5, 33.6)	20.3 (12.0, 32.1)
QAACT – child (<5 years)	43.0 (8.8, 85.5)	40.3 (12.9, 75.5)	70.5 (53.7, 83.1)	69.0 (53.1, 81.5)
QAACT - adult	24.6 (4.5, 69.3)	36.3 (9.9, 74.6)	55.4 (38.7, 70.9)	54.4 (38.5, 69.4)
QAACT with the “green leaf” logo	27.5 (5.9, 69.5)	29.0 (7.8, 66.4)	57.8 (41.1, 72.8)	56.4 (40.5, 71.0)
Non-quality-assured ACT (non-QAACT)	33.8 (7.6, 76.0)	27.4 (8.8, 59.6)	13.1 (6.0, 26.3)	13.8 (6.7, 26.2)
Non-QA AL	33.8 (7.6, 76.0)	23.5 (7.1, 55.4)	12.7 (5.7, 26.1)	13.3 (6.3, 25.8)
Non-QA ASAQ	0.0 -	3.5 (0.4, 23.1)	0.3 (0.2, 0.5)	0.5 (0.2, 1.0)
Nationally Registered ACT	46.5 (9.3, 88.1)	72.4 (24.0, 95.6)	78.2 (61.3, 89.0)	77.8 (61.7, 88.4)
First-line ACT [†]	46.5 (9.3, 88.1)	72.4 (24.0, 95.6)	78.1 (61.3, 89.0)	77.8 (61.7, 88.4)
Any non-artemisinin therapy	46.5 (9.3, 88.1)	88.4 (54.9, 97.9)	50.0 (33.5, 66.4)	51.8 (35.7, 67.4)
Chloroquine	9.3 (1.4, 41.6)	5.0 (1.1, 20.6)	23.8 (13.4, 38.9)	22.9 (12.9, 37.4)
Sulfadoxine-Pyrimethamine	46.5 (9.3, 88.1)	81.8 (49.7, 95.4)	40.8 (25.8, 57.7)	42.7 (28.1, 58.8)

Table C1: Availability of antimalarials, among screened outlets, by type of public health facility

	University Hospital/Federal Medical Centre	General Hospital/Specialist	Primary Health Care/Comprehensive Health Centre	ALL Public Health Facilities
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	N=8	N=34	N=681	N=723
Oral Quinine	21.2 (4.5, 60.5)	48.3 (16.2, 81.9)	0.6 (0.3, 1.2)	2.8 (1.2, 6.5)
Quinine IV/IM	10.7 (1.6, 46.3)	11.7 (2.9, 36.9)	2.2 (0.9, 5.4)	2.7 (1.3, 5.7)
Amodiaquine	3.5 (0.4, 26.4)	3.8 (0.6, 22.1)	0.1 (0.1, 0.2)	0.3 (0.1, 0.9)
Any artemisinin monotherapy	46.5 (9.3, 88.1)	98.5 (95.4, 99.5)	34.4 (20.4, 51.8)	37.4 (23.7, 53.6)
Oral artemisinin monotherapy	29.3 (5.8, 73.6)	8.7 (2.1, 30.2)	2.4 (0.9, 6.3)	2.7 (1.1, 6.3)
Non-oral artemisinin monotherapy	42.6 (8.7, 85.2)	98.4 (95.2, 99.5)	33.3 (19.3, 50.9)	36.3 (22.6, 52.6)
Artemether IV/IM	42.6 (8.7, 85.2)	84.9 (53.0, 96.5)	32.1 (18.3, 50.0)	34.6 (21.1, 51.1)
Artesunate IV/IM	17.0 (3.0, 57.6)	20.4 (5.0, 55.9)	1.3 (0.4, 4.7)	2.3 (0.9, 5.7)
Any treatment for severe malaria	42.6 (8.7, 85.2)	95.0 (79.1, 99.0)	33.8 (19.8, 51.3)	36.7 (23.0, 52.9)
* The denominator includes 2 outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview).				
‡ At the time of the 2013 Nigeria ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were both first-line treatments for uncomplicated malaria.				
Source: ACTwatch Outlet Survey, Nigeria, 2013.				

Table C2: Availability of antimalarials, among outlets stocking at least one antimalarial, by type of public health facility

	University Hospital/Federal Medical Centre	General Hospital/Specialist	Primary Health Care/Comprehensive Health Centre	ALL Public Health Facilities
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	N=7	N=33	N=619	N=659
Any ACT	100.0 -	72.6 (23.9, 95.7)	85.8 (67.1, 94.7)	85.1 (67.5, 94.0)
Artemether Lumefantrine (AL)	100.0 -	72.6 (23.9, 95.7)	83.9 (65.1, 93.6)	83.3 (65.6, 92.9)
Artesunate Amodiaquine (ASAQ)	17.1 (2.2, 65.3)	6.1 (1.5, 21.0)	23.4 (13.7, 36.8)	22.5 (13.4, 35.2)
Dihydroartemisinin Piperaquine (DHA PPQ)	49.6 (15.5, 84.1)	11.0 (1.8, 45.7)	0.8 (0.2, 2.4)	1.3 (0.5, 3.6)
Other ACT	8.5 (1.1, 44.5)	0.4 (0.1, 1.7)	0.0 (0.0, 0.1)	0.0 (0.0, 0.1)
Quality Assured ACT (QAACT)	92.4 (58.5, 99.0)	58.3 (20.7, 88.2)	85.1 (66.8, 94.2)	83.7 (66.8, 92.9)
QA AL	92.4 (58.5, 99.0)	58.3 (20.7, 88.2)	83.3 (64.7, 93.1)	82.0 (64.8, 91.9)
QA ASAQ	17.1 (2.2, 65.3)	2.7 (1.0, 6.6)	23.2 (13.6, 36.7)	22.2 (13.1, 34.9)
QAACT – child (<5 years)	92.4 (58.5, 99.0)	40.4 (12.9, 75.6)	77.3 (59.3, 88.9)	75.5 (58.6, 87.0)
QAACT - adult	52.9 (17.5, 85.5)	36.3 (9.9, 74.7)	60.7 (42.4, 76.4)	59.5 (42.2, 74.7)
QAACT with the “green leaf” logo	59.1 (20.4, 89.1)	29.1 (7.8, 66.5)	63.4 (45.3, 78.3)	61.6 (44.5, 76.3)
Non-quality-assured ACT (non-QAACT)	72.6 (23.8, 95.8)	27.4 (8.8, 59.8)	14.4 (6.5, 28.7)	15.1 (7.3, 28.6)
Non-QA AL	72.6 (23.8, 95.8)	23.6 (7.1, 55.6)	14.0 (6.2, 28.4)	14.5 (6.9, 28.1)
Non-QA ASAQ	0.0 -	3.5 (0.4, 23.2)	0.3 (0.2, 0.6)	0.5 (0.2, 1.1)
Nationally Registered ACT	100.0 -	72.6 (23.9, 95.7)	85.7 (67.1, 94.7)	85.1 (67.5, 94.0)
First-line ACT ^ψ	100.0 -	72.6 (23.9, 95.7)	85.7 (67.1, 94.7)	85.1 (67.5, 94.0)
Any non-artemisinin therapy	100.0 -	88.6 (54.7, 98.1)	54.8 (36.8, 71.6)	56.6 (39.1, 72.6)
Chloroquine	19.9 (3.9, 60.1)	5.1 (1.1, 20.7)	26.2 (14.7, 42.2)	25.1 (14.2, 40.4)
Sulfadoxine-Pyrimethamine	100.0 -	82.0 (49.7, 95.5)	44.8 (28.4, 62.3)	46.7 (30.8, 63.3)
Oral Quinine	45.5 (13.8, 81.4)	48.4 (16.2, 82.0)	0.6 (0.3, 1.4)	3.1 (1.3, 7.2)
Quinine IV/IM	23.0 (4.5, 65.4)	11.7 (2.9, 37.0)	2.5 (1.0, 5.9)	3.0 (1.4, 6.2)

Table C2: Availability of antimalarials, among outlets stocking at least one antimalarial, by type of public health facility

	University Hospital/Federal Medical Centre	General Hospital/Specialist	Primary Health Care/Comprehensive Health Centre	ALL Public Health Facilities
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	N=7	N=33	N=619	N=659
Amodiaquine	7.6 (1.0, 41.5)	3.8 (0.6, 22.2)	0.1 (0.1, 0.3)	0.3 (0.1, 1.0)
Any artemisinin monotherapy	100.0 -	98.8 (95.8, 99.6)	37.7 (22.6, 55.7)	40.9 (26.1, 57.6)
Oral artemisinin monotherapy	63.0 (24.3, 90.0)	8.8 (2.1, 30.3)	2.6 (0.9, 6.9)	3.0 (1.2, 6.9)
Non-oral artemisinin monotherapy	91.5 (55.5, 98.9)	98.7 (95.7, 99.6)	36.5 (21.4, 54.8)	39.7 (25.0, 56.6)
Artemether IV/IM	91.5 (55.5, 98.9)	85.1 (52.9, 96.7)	35.2 (20.3, 53.8)	37.8 (23.3, 55.0)
Artesunate IV/IM	36.6 (9.4, 76.3)	20.5 (5.0, 56.0)	1.5 (0.4, 5.2)	2.5 (1.0, 6.2)
Any treatment for severe malaria	91.5 (55.5, 98.9)	95.2 (78.9, 99.1)	37.1 (22.0, 55.2)	40.1 (25.3, 56.9)

* The denominator includes 1 outlet that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview).

† At the time of the 2013 Nigeria ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were both first-line treatments for uncomplicated malaria.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table C5: Availability of malaria blood testing among antimalarial-stocking outlets*, by type of public health facility

	University Hospital/Federal Medical Centre	General Hospital/Specialist	Primary Health Care/Comprehensive Health Centre	ALL Public Health Facilities
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets** that stocked:	N=7	N=33	N=667	N=707
Any malaria blood testing	72.6 (23.8, 95.8)	98.9 (96.1, 99.7)	46.4 (31.1, 62.5)	49.0 (33.9, 64.4)
	N=7	N=33	N=667	N=707
Microscopic blood tests	66.7 (23.0, 93.1)	89.2 (54.1, 98.3)	8.4 (2.5, 24.2)	12.4 (5.4, 25.9)
	N=7	N=33	N=667	N=707
Rapid diagnostic tests (RDTs)	13.6 (2.8, 46.4)	32.3 (9.3, 68.9)	44.4 (29.3, 60.6)	43.8 (29.4, 59.4)
<p>* Blood-testing availability is reported among outlets that either had antimalarials in stock on the day of the survey or reportedly stocked antimalarials in the previous 3 months.</p> <p>** Results in this table are derived using responses captured among outlets with blood testing information. 2 antimalarial-stocking outlets were missing information about both availability of microscopy and availability of RDTs. 2 antimalarial-stocking outlets had partial information about blood testing availability and are included in the denominator of the indicator "any blood testing available."</p>				
Source: ACTwatch Outlet Survey, Nigeria, 2013.				

Table C9: Provider case management knowledge and practices, by type of public health facility

	University Hospital/Federal Medical Centre	General Hospital/Specialist	Primary Health Care/Comprehensive Health Centre	ALL Public Health Facilities
Proportion of providers who:	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Would recommend that a client with a negative malaria blood test take an antimalarial	N=7	N=31	N=606	N=644
Yes – sometimes	48.9 (15.7, 83.1)	15.6 (3.2, 51.2)	32.9 (19.2, 50.2)	32.1 (19.1, 48.6)
Yes – always	0.0 -	0.7 (0.1, 3.3)	2.9 (0.9, 8.7)	2.8 (0.9, 8.3)
Circumstances cited for recommending antimalarial treatment to a client who tested negative for malaria: *	N=3	N=10	N=231	N=244
Patient has signs of malaria	100.0 -	100.0 -	99.4 (96.8, 99.9)	99.5 (96.9, 99.9)
Don't trust test result	0.0 -	68.8 (16.9, 96.0)	21.0 (6.9, 48.9)	22.0 (7.8, 48.7)
When patient asks	0.0 -	0.0 -	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)
Other (all other reasons)	28.5 (3.0, 83.6)	0.7 (0.1, 7.4)	12.8 (3.0, 40.9)	12.6 (3.0, 40.1)
Provider questions were administered to one staff member working in each outlet eligible for a full interview (current/recent antimalarial-stocking outlets or outlets providing malaria blood testing).				
* 1 provider was missing information on circumstances for recommending antimalarials to clients who tested negative for malaria.				
Source: ACTwatch Outlet Survey, Nigeria, 2013.				

Table C10: Provider antimalarial treatment knowledge and practices, by type of public health facility

	University Hospital/Federal Medical Centre	General Hospital/Specialist	Primary Health Care/Comprehensive Health Centre	ALL Public Health Facilities
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of providers who:	N=7	N=33	N=669	N=709
Correctly state the national first-line treatment ^ψ for uncomplicated malaria	100.0 -	90.0 (53.2, 98.6)	92.5 (82.5, 97.0)	92.4 (83.0, 96.8)
Correctly state the first-line dosing regimen for:				
An adult	78.4 (38.9, 95.4)	89.5 (53.8, 98.4)	84.9 (71.3, 92.7)	85.1 (72.3, 92.6)
A two-year old child	94.0 (63.6, 99.3)	88.1 (55.2, 97.8)	86.0 (73.7, 93.1)	86.1 (74.5, 93.0)
Report an ACT as the most effective antimalarial medicine for				
Adults	94.0 (63.6, 99.3)	90.4 (52.6, 98.8)	94.1 (87.6, 97.3)	93.9 (87.7, 97.0)
Children	57.4 (21.0, 87.3)	80.6 (44.4, 95.6)	87.8 (71.4, 95.4)	87.4 (72.2, 94.9)
Report an ACT as the antimalarial he/she most commonly recommends for:				
Adults	100.0 -	90.1 (53.1, 98.6)	96.3 (91.3, 98.4)	95.9 (91.1, 98.2)
Children	65.0 (22.8, 92.1)	80.2 (44.2, 95.4)	89.4 (72.4, 96.5)	88.9 (73.3, 95.9)

^ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

Numbers of providers (N) in this table are the total number of providers eligible for table indicators. The number of providers with missing information include:

1 provider was missing information on the national first-line treatment, 1 and 1 providers were missing information on the first-line dosing regimen for adults and children respectively, 2 and 2 providers were missing information on the most effective antimalarial medicine for adults and children respectively, 26 and 7 providers were missing information on the most often recommended antimalarial for adults and children respectively

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Results Section D: Core Indicators across Survey Rounds: 2009, 2011, 2013

Table D1: Availability of antimalarials, among all screened outlets, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	2009 N=255 2011 N=108 2013 N=723	2009 N=19 2011 N=14 2013 N=13	2009 N=11 2011 N=11 2013 N=6	2009 N=285 2011 N=133 2013 N=742	2009 N=405 2011 N=100 2013 N=111	2009 N=409 2011 N=37 2013 N=54	2009 N=1,031 2011 N=1,185 2013 N=875	2009 N=3,305 2011 N=6,377 2013 N=3,339	2009 N=21 2011 N=87 2013 N=27	2009 N=5,171 2011 N=7,786 2013 N=4,406	2009 N=5,456 2011 N=7,919 2013 N=5,148
Any antimalarial at the time of survey visit											
2009	91.8 (80.2, 96.9)	80.0 (54.6, 93.0)	98.6 (89.6, 99.8)	89.2 (79.0, 94.8)	91.4 (72.2, 97.8)	99.5 (98.0, 99.9)	95.6 (93.4, 97.0)	3.3 (2.0, 5.3)	70.2 (33.9, 91.6)	25.6 (22.4, 29.2)	26.6 (23.3, 30.1)
2011	82.8 (68.1, 91.5)	33.8 (7.0, 77.6)	71.2 (29.8, 93.5)	77.4 (64.7, 86.5)	87.1 (76.8, 93.2)	100 -	97.8 (95.5, 98.9)	0.9 (0.5, 1.4)	25.6 (20.0, 32.1)	17.9 (15.7, 20.4)	19.0 (16.8, 21.5)
2013	91.5 (79.0, 96.8)	43.5 (14.3, 78.1)	96.6 (74.3, 99.6)	84.5 (71.4, 92.3)	77.6 (63.0, 87.6)	93.7 (83.0, 97.8)	96.0 (92.7, 97.8)	2.3 (1.2, 4.1)	46.7 (21.3, 73.9)	21.0 (18.5, 23.6)	25.1 (22.4, 27.9)
Any ACT											
2009	55.9 (34.1, 75.5)	45.5 (17.0, 77.3)	99.1 (93.2, 99.9)	54.1 (36.0, 71.2)	31.1 (24.3, 38.7)	97.0 (90.0, 99.1)	36.9 (28.0, 46.7)	0.7 (0.3, 2.2)	0.0 -	9.5 (7.2, 12.4)	10.1 (7.9, 12.9)
2011	52.8 (39.0, 66.3)	27.6 (4.5, 75.4)	62.2 (32.0, 85.2)	52.1 (40.7, 63.4)	52.4 (36.0, 68.2)	100 -	56.9 (45.9, 67.3)	0.2 (0.1, 0.4)	4.4 (1.7, 10.9)	10.3 (9.2, 11.5)	11.1 (9.9, 12.3)
2013	77.8 (61.7, 88.4)	17.4 (5.6, 42.9)	64.3 (37.6, 84.3)	67.8 (51.2, 80.9)	63.2 (41.3, 80.8)	93.3 (82.8, 97.6)	75.7 (67.7, 82.1)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	16.1 (14.1, 18.3)	19.4 (17.1, 21.9)
Artemether Lumefantrine											
2009	27.2 (15.0, 44.2)	10.5 (1.7, 44.6)	93.0 (67.5, 98.8)	24.3 (14.3, 38.3)	25.2 (16.7, 36.2)	93.7 (82.0, 98.0)	15.3 (9.0, 24.7)	0.5 (0.2, 1.3)	0.0 -	4.3 (2.8, 6.6)	4.6 (3.1, 6.8)
2011	52.3 (38.5, 65.7)	27.6 (4.5, 75.4)	62.2 (32.0, 85.2)	51.7 (40.2, 63.0)	51.6 (35.4, 67.5)	100 -	52.3 (40.0, 64.4)	0.2 (0.1, 0.4)	4.4 (1.7, 11.0)	9.5 (8.3, 11.0)	10.3 (9.0, 11.8)
2013	76.2 (59.9, 87.3)	17.4 (5.6, 42.9)	64.3 (37.6, 84.3)	66.6 (50.0, 79.8)	61.2 (39.6, 79.1)	93.3 (82.8, 97.6)	74.5 (66.8, 80.9)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	15.8 (13.9, 18.0)	19.1 (16.8, 21.6)
Artesunate Amodiaquine											
2009	33.5 (15.7, 57.6)	35.0 (10.0, 72.4)	84.0 (34.8, 98.1)	34.5 (18.6, 54.9)	27.2 (19.3, 36.9)	90.7 (75.2, 96.9)	27.0 (21.3, 33.6)	0.5 (0.1, 1.9)	0.0 -	7.0 (5.3, 9.3)	7.4 (5.7, 9.6)
2011	8.6 (3.6, 18.9)	0.0 -	12.9 (1.6, 57.3)	8.5 (4.1, 16.7)	6.7 (2.8, 15.5)	53.5 (32.5, 73.2)	19.4 (14.8, 24.9)	0.1 (<0.1, 0.4)	0.0 -	3.4 (2.7, 4.4)	3.5 (2.7, 4.5)
2013	20.6 (12.3, 32.4)	0.0 -	48.8 (27.4, 70.7)	19.2 (11.8, 29.6)	14.5 (4.9, 35.7)	52.3 (27.6, 76.0)	14.1 (10.1, 19.3)	0.0 (0.0, 0.1)	0.0 -	3.0 (2.2, 4.1)	4.0 (3.1, 5.2)

Table D1: Availability of antimalarials, among all screened outlets, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Quality Assured ACT (QAACT)											
2009	42.5 (23.9, 63.5)	45.5 (17.0, 77.3)	97.8 (85.6, 99.7)	43.9 (28.1, 61.1)	26.1 (17.6, 36.9)	30.8 (9.1, 66.4)	26.7 (21.1, 33.1)	0.5 (0.2, 1.5)	0.0 -	6.7 (5.1, 8.9)	7.3 (5.6, 9.4)
2011	46.9 (35.2, 59.0)	27.6 (4.5, 75.4)	62.2 (32.0, 85.2)	47.5 (36.9, 58.3)	44.6 (30.7, 59.4)	99.8 (98.1, 100.0)	53.0 (42.8, 63.0)	0.2 (0.1, 0.4)	0.3 (<0.1, 2.0)	9.5 (8.4, 10.7)	10.2 (9.1, 11.4)
2013	76.6 (60.8, 87.4)	17.4 (5.6, 42.9)	48.8 (27.4, 70.7)	65.9 (49.7, 79.1)	59.3 (38.0, 77.6)	88.6 (75.6, 95.1)	73.4 (65.8, 79.8)	1.3 (0.7, 2.6)	10.7 (3.1, 30.9)	15.6 (13.6, 17.7)	18.8 (16.6, 21.3)
QAACT with the "green leaf" logo											
2009	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2011	22.4 (14.5, 32.9)	3.7 (0.7, 18.4)	60.4 (31.5, 83.4)	26.0 (17.7, 36.5)	39.3 (26.1, 54.3)	80.9 (50.1, 94.7)	49.4 (39.4, 59.3)	0.1 (0.1, 0.3)	0.3 (<0.1, 2.0)	8.7 (7.7, 9.8)	9.0 (8.0, 10.1)
2013	56.4 (40.5, 71.0)	9.6 (1.5, 43.0)	48.8 (27.4, 70.7)	48.8 (34.7, 63.2)	54.6 (33.6, 74.1)	85.0 (65.4, 94.5)	67.7 (60.8, 74.0)	1.3 (0.6, 2.6)	10.7 (3.1, 30.9)	14.4 (12.6, 16.6)	16.7 (14.6, 19.0)
Non-quality-assured ACT											
2009	16.3 (7.0, 33.4)	1.0 (0.1, 7.2)	83.6 (34.0, 98.1)	13.7 (6.3, 27.6)	27.0 (19.4, 36.3)	96.1 (88.2, 98.8)	21.8 (13.1, 34.0)	0.6 (0.2, 1.6)	0.0 -	5.9 (3.9, 8.8)	6.0 (4.0, 8.9)
2011	20.8 (11.3, 35.2)	0.0 -	0.5 (0.1, 4.8)	16.5 (9.4, 27.2)	21.1 (11.3, 36.2)	99.8 (98.3, 100.0)	25.4 (18.4, 33.9)	0.2 (0.1, 0.4)	4.1 (1.5, 10.5)	4.9 (4.0, 5.9)	5.1 (4.2, 6.2)
2013	13.8 (6.7, 26.2)	7.8 (1.5, 31.4)	15.4 (1.4, 70.7)	13.0 (6.9, 23.3)	13.3 (6.8, 24.2)	87.5 (71.8, 95.0)	35.5 (27.8, 44.1)	0.4 (0.1, 1.2)	0.0 -	7.1 (5.6, 9.0)	7.5 (6.0, 9.4)
Any non-artemisinin therapy											
2009	80.6 (62.2, 91.3)	45.1 (16.9, 76.9)	98.6 (89.2, 99.8)	72.9 (55.0, 85.5)	70.9 (62.0, 78.4)	97.6 (90.5, 99.4)	94.6 (92.3, 96.3)	3.2 (2.0, 5.2)	70.2 (33.9, 91.6)	25.2 (22.1, 28.6)	25.9 (22.9, 29.3)
2011	62.4 (47.5, 75.3)	32.5 (6.5, 77.0)	58.7 (26.5, 84.8)	59.6 (48.1, 70.1)	74.8 (64.2, 83.1)	100 -	97.3 (95.2, 98.5)	0.8 (0.5, 1.4)	21.7 (15.5, 29.7)	17.6 (15.4, 20.1)	18.4 (16.1, 20.9)
2013	51.8 (35.7, 67.4)	43.5 (14.3, 78.1)	80.1 (26.9, 97.8)	52.3 (39.0, 65.3)	63.0 (45.5, 77.7)	91.9 (81.0, 96.8)	94.3 (90.8, 96.5)	2.2 (1.2, 4.0)	39.9 (14.4, 72.3)	20.2 (17.8, 22.9)	22.3 (19.6, 25.2)

Table D1: Availability of antimalarials, among all screened outlets, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Chloroquine											
2009	63.0 (45.6, 77.6)	9.7 (2.1, 34.8)	98.6 (88.8, 99.8)	51.5 (36.7, 66.0)	67.5 (60.3, 73.9)	42.5 (11.1, 81.5)	91.4 (88.9, 93.5)	2.8 (1.7, 4.6)	18.3 (6.8, 40.9)	23.7 (20.7, 27.0)	24.1 (21.1, 27.4)
2011	32.8 (21.7, 46.2)	29.8 (5.4, 76.0)	49.4 (26.3, 72.7)	34.8 (25.2, 45.7)	60.2 (48.2, 71.0)	92.8 (60.7, 99.1)	94.0 (91.8, 95.6)	0.7 (0.4, 1.2)	6.3 (2.2, 16.7)	16.5 (14.3, 19.1)	16.9 (14.6, 19.4)
2013	22.9 (12.9, 37.4)	43.5 (14.3, 78.1)	32.3 (12.0, 62.7)	26.6 (17.3, 38.6)	50.3 (31.9, 68.6)	86.0 (70.1, 94.2)	87.8 (83.8, 91.0)	1.8 (0.9, 3.6)	31.0 (8.7, 67.9)	18.5 (16.4, 20.7)	19.0 (17.0, 21.2)
Sulfadoxine-Pyrimethamine											
2009	63.5 (45.7, 78.1)	28.3 (7.8, 64.7)	97.1 (82.6, 99.6)	56.0 (39.0, 71.7)	35.3 (29.7, 41.3)	93.9 (79.8, 98.3)	76.1 (67.4, 83.0)	2.6 (1.5, 4.2)	55.2 (36.1, 72.9)	20.1 (18.1, 22.3)	20.7 (18.7, 22.8)
2011	49.1 (34.6, 63.7)	29.0 (5.1, 75.8)	29.8 (5.8, 74.6)	44.9 (34.3, 56.0)	39.4 (26.6, 53.9)	99.7 (98.3, 99.9)	77.7 (68.0, 85.1)	0.7 (0.4, 1.3)	20.7 (14.1, 29.4)	13.9 (12.6, 15.3)	14.5 (13.1, 15.9)
2013	42.7 (28.1, 58.8)	35.8 (7.4, 79.6)	32.3 (12.0, 62.7)	41.0 (28.7, 54.6)	23.7 (11.2, 43.3)	81.7 (65.1, 91.5)	73.6 (67.9, 78.7)	1.2 (0.6, 2.2)	8.9 (3.1, 22.8)	14.7 (12.8, 16.9)	16.4 (14.2, 18.9)
Oral artemisinin monotherapy											
2009	4.3 (1.7, 10.4)	1.3 (0.3, 6.5)	2.6 (0.3, 17.1)	3.6 (1.6, 8.1)	48.1 (28.5, 68.3)	96.7 (90.3, 98.9)	44.7 (34.7, 55.1)	1.0 (0.5, 2.1)	11.6 (1.9, 47.2)	11.6 (9.4, 14.3)	11.5 (9.3, 14.1)
2011	12.4 (6.4, 22.5)	0.0 -	24.1 (4.7, 67.4)	13.0 (7.5, 21.6)	15.4 (7.5, 28.9)	99.5 (97.3, 99.9)	35.4 (27.0, 44.8)	0.2 (0.1, 0.4)	0.2 (<0.1, 2.6)	6.3 (5.3, 7.4)	6.4 (5.4, 7.6)
2013	2.7 (1.1, 6.3)	0.0 -	0.0 -	2.1 (0.9, 5.0)	7.9 (3.7, 15.8)	78.7 (62.2, 89.3)	24.5 (19.3, 30.5)	0.5 (0.2, 1.5)	0.0 -	5.1 (4.0, 6.6)	5.0 (3.9, 6.3)
Non-oral artemisinin monotherapy											
2009	22.6 (6.5, 55.1)	0.0 -	80.6 (30.2, 97.6)	18.3 (5.6, 46.0)	6.4 (1.9, 19.5)	12.7 (4.2, 32.7)	5.7 (1.7, 17.3)	0.0	0.0 -	1.4 (0.4, 4.3)	1.6 (0.6, 4.3)
2011	19.8 (11.4, 32.1)	0.0 -	33.1 (8.3, 73.0)	20.1 (12.9, 29.9)	27.6 (17.5, 40.6)	60.1 (36.1, 80.0)	5.9 (2.7, 12.5)	0.0 -	0.0 -	1.6 (1.0, 2.5)	1.9 (1.3, 2.9)
2013	36.3 (22.6, 52.6)	4.2 (0.5, 25.8)	0.0 -	29.2 (18.6, 42.7)	42.2 (26.0, 60.2)	67.4 (44.8, 84.1)	18.2 (13.0, 24.9)	0.0 -	0.0 -	4.3 (3.2, 5.7)	5.9 (4.6, 7.4)

Table D1: Availability of antimalarials, among all screened outlets, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Any treatment for severe malaria											
2009	2.4 (0.4, 14.6)	0.0 -	0.0 -	1.8 (0.3, 11.3)	0.1 (<0.1, 0.5)	1.6 (0.5, 5.3)	0.0 -	0.0 -	0.0 -	<0.1 (<0.1, <0.1)	<0.1 (<0.1, 0.2)
2011	24.1 (14.7, 37.0)	0.0 -	35.3 (9.1, 74.7)	23.7 (15.7, 34.1)	38.0 (28.5, 48.6)	60.3 (36.3, 80.2)	7.0 (3.3, 14.1)	0.004 (<0.1, 0.03)	0.2 (<0.1, 1.8)	1.9 (1.2, 3.0)	2.3 (1.6, 3.4)
2013	36.7 (23.0, 52.9)	4.2 (0.5, 25.8)	15.4 (1.4, 70.7)	30.4 (19.7, 43.8)	44.0 (27.6, 61.9)	67.4 (44.8, 84.1)	19.7 (14.3, 26.6)	0.0 -	0.0 -	4.6 (3.5, 6.0)	6.3 (5.0, 7.8)

* The denominator includes outlets that met screening criteria for a full interview but did not complete the interview (were not interviewed or completed a partial interview).

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Table D2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets* stocking:	2009 N=228 2011 N=94 2013 N=659	2009 N=12 2011 N=7 2013 N=5	2009 N=9 2011 N=9 2013 N=4	2009 N=249 2011 N=110 2013 N=668	2009 N=358 2011 N=88 2013 N=76	2009 N=403 2011 N=37 2013 N=50	2009 N=990 2011 N=1,163 2013 N=837	2009 N=103 2011 N=64 2013 N=71	2009 N=10 2011 N=28 2013 N=12	2009 N=1,864 2011 N=1,380 2013 N=1,046	2009 N=2,113 2011 N=1,490 2013 N=1,714
Any ACT											
2009	60.8 (38.2, 79.6)	56.9 (19.8, 87.6)	99.4 (93.3, 99.9)	60.6 (41.1, 77.3)	33.9 (27.1, 41.5)	97.4 (90.8, 99.3)	38.6 (29.0, 49.0)	24.7 (10.5, 47.8)	0.0 -	37.3 (28.5, 47.0)	38.5 (30.1, 47.6)
2011	63.8 (49.0, 76.4)	81.6 (32.0, 97.7)	87.3 (51.2, 97.8)	67.3 (53.6, 78.7)	60.1 (42.7, 75.3)	100.0	58.2 (47.2, 68.4)	26.0 (13.1, 45.0)	17.1 (5.9, 40.2)	57.3 (47.0, 67.0)	58.1 (48.3, 67.2)
2013	85.1 (67.5, 94.0)	40.0 (5.5, 88.4)	66.5 (35.8, 87.6)	80.3 (57.6, 92.4)	81.5 (59.0, 93.1)	99.6 (96.9, 99.9)	78.8 (70.2, 85.5)	58.8 (36.5, 78.0)	22.9 (4.9, 63.2)	76.7 (69.9, 82.3)	77.5 (71.0, 82.9)
Artemether Lumefantrine											
2009	29.6 (16.1, 47.9)	13.2 (2.0, 53.0)	94.3 (71.2, 99.1)	27.3 (15.8, 42.9)	27.6 (20.0, 36.8)	94.2 (83.0, 98.2)	16.0 (9.3, 26.0)	16.0 (8.2, 29.0)	0.0 -	16.9 (10.5, 26.0)	17.4 (11.2, 25.9)
2011	64.5 (49.5, 77.1)	81.6 (32.1, 97.7)	87.4 (51.3, 97.8)	68.0 (54.1, 79.3)	59.3 (42.0, 74.6)	100.0	53.6 (41.1, 65.7)	23.0 (11.1, 41.7)	17.1 (5.9, 40.2)	53.2 (41.6, 64.5)	54.3 (43.3, 64.9)
2013	83.3 (65.6, 92.9)	40.0 (5.5, 88.4)	66.5 (35.8, 87.6)	78.8 (56.6, 91.3)	78.9 (56.9, 91.3)	99.6 (96.9, 99.9)	77.6 (69.2, 84.3)	58.8 (36.5, 78.0)	22.9 (4.9, 63.2)	75.6 (69.0, 81.1)	76.2 (69.8, 81.7)
Artesunate Amodiaquine											
2009	36.5 (17.5, 60.9)	43.8 (12.1, 81.5)	85.1 (34.7, 98.4)	38.7 (21.0, 59.9)	29.8 (22.6, 38.0)	91.2 (76.1, 97.1)	28.3 (22.1, 35.4)	15.9 (5.6, 37.9)	0.0 -	27.4 (21.6, 34.0)	28.0 (22.3, 34.4)
2011	10.6 (4.5, 22.9)	0.0	18.1 (2.6, 65.1)	11.2 (5.3, 22.0)	7.7 (3.2, 17.3)	53.5 (32.5, 73.2)	19.8 (15.2, 25.4)	13.9 (4.3, 36.6)	0.0 -	19.1 (14.7, 24.6)	18.6 (14.3, 23.8)
2013	22.5 (13.4, 35.2)	0.0 -	50.6 (27.8, 73.1)	22.7 (14.0, 34.7)	18.7 (6.3, 43.8)	55.9 (28.5, 80.1)	14.6 (10.5, 20.1)	1.5 (0.4, 5.7)	0.0 -	14.2 (10.5, 18.8)	16.0 (12.6, 20.1)
Quality Assured ACT (QAACT)											
2009	46.3 (26.6, 67.3)	56.9 (19.8, 87.6)	98.1 (85.8, 99.8)	49.2 (31.9, 66.7)	28.5 (20.7, 37.7)	30.9 (9.1, 66.7)	27.9 (21.9, 34.8)	17.2 (7.7, 33.9)	0.0 -	26.6 (21.0, 33.0)	27.7 (22.4, 33.9)
2011	56.7 (44.1, 68.5)	81.6 (32.0, 97.7)	87.3 (51.2, 97.8)	61.3 (49.6, 71.9)	51.2 (36.0, 66.2)	99.8 (98.1, 100.0)	54.2 (44.1, 64.0)	23.2 (11.2, 42.0)	1.1 (0.1, 8.0)	52.9 (43.4, 62.2)	53.5 (44.4, 62.4)
2013	83.7 (66.8, 92.9)	40.0 (5.5, 88.4)	50.6 (27.8, 73.1)	78.0 (56.6, 90.6)	76.4 (54.9, 89.6)	94.6 (85.5, 98.1)	76.5 (68.3, 83.0)	58.6 (36.3, 77.8)	22.9 (4.9, 63.2)	74.3 (68.0, 79.7)	75.1 (69.0, 80.4)

Table D2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
QAACT with the "green leaf" logo											
2009	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2011	27.1 (18.0, 38.6)	11.0 (1.4, 51.9)	84.8 (52.2, 96.6)	33.7 (23.1, 46.1)	45.1 (30.4, 60.8)	80.9 (50.0, 94.7)	50.5 (40.6, 60.3)	15.4 (6.6, 32.0)	1.1 (0.1, 8.0)	48.5 (39.7, 57.5)	47.4 (39.1, 55.9)
2013	61.6 (44.5, 76.3)	22.1 (2.6, 75.0)	50.6 (27.8, 73.1)	57.8 (40.8, 73.1)	70.4 (47.9, 86.0)	90.8 (72.4, 97.4)	70.6 (63.1, 77.0)	56.9 (35.0, 76.4)	22.9 (4.9, 63.2)	68.9 (62.4, 74.8)	66.5 (59.8, 72.5)
Non-quality-assured ACT											
2009	17.7 (7.7, 35.8)	1.3 (0.2, 9.4)	83.9 (34.0, 98.1)	15.4 (7.0, 30.5)	29.5 (22.8, 37.2)	96.6 (89.1, 99.0)	22.8 (13.6, 35.7)	20.4 (9.6, 38.1)	0.0 -	23.2 (14.5, 35.0)	22.8 (14.5, 34.0)
2011	25.2 (13.8, 41.4)	0.0 -	0.7 (0.1, 6.2)	21.3 (11.8, 35.4)	24.3 (13.5, 39.8)	99.8 (98.3, 100.0)	25.9 (18.9, 34.5)	19.1 (8.1, 38.7)	16.0 (5.5, 38.3)	27.1 (20.1, 35.4)	26.6 (20.1, 34.4)
2013	15.1 (7.3, 28.6)	17.8 (1.6, 74.3)	16.0 (1.3, 73.9)	15.4 (7.8, 28.0)	17.1 (8.6, 31.2)	93.3 (74.9, 98.5)	37.0 (28.8, 46.0)	18.1 (5.6, 45.0)	0.0 -	34.1 (27.0, 41.9)	30.0 (23.7, 37.2)
Any non-artemisinin therapy											
2009	87.8 (69.2, 95.9)	56.4 (18.6, 88.0)	98.9 (89.0, 99.9)	81.7 (62.5, 92.3)	77.4 (61.9, 87.9)	98.0 (90.9, 99.6)	98.9 (97.3, 99.6)	97.0 (91.1, 99.0)	100.0 -	98.2 (96.5, 99.1)	97.3 (95.6, 98.4)
2011	75.4 (60.1, 86.2)	96.1 (67.6, 99.7)	82.4 (34.2, 97.7)	77.0 (63.8, 86.3)	85.9 (73.9, 92.9)	100 -	99.5 (98.6, 99.8)	97.3 (84.3, 99.6)	85.0 (63.1, 94.9)	98.2 (96.8, 98.9)	96.6 (94.8, 97.8)
2013	56.6 (39.1, 72.6)	0.0 -	82.9 (24.3, 98.7)	61.8 (46.5, 75.2)	81.2 (60.0, 92.6)	98.0 (92.0, 99.5)	98.2 (96.3, 99.2)	95.8 (81.3, 99.2)	85.4 (35.0, 98.5)	96.5 (93.7, 98.1)	89.0 (83.8, 92.7)
Chloroquine											
2009	68.6 (50.5, 82.4)	12.1 (2.6, 41.5)	98.9 (88.5, 99.9)	57.7 (41.9, 72.1)	73.7 (63.6, 81.8)	42.7 (11.0, 81.8)	95.6 (93.9, 96.9)	87.7 (79.9, 92.8)	26.1 (13.5, 44.6)	92.9 (90.5, 94.7)	91.1 (88.5, 93.1)
2011	39.6 (26.9, 53.8)	88.1 (44.9, 98.5)	69.3 (33.1, 91.2)	44.9 (32.9, 57.5)	69.1 (53.7, 81.2)	92.8 (60.6, 99.1)	96.1 (94.1, 97.4)	80.3 (53.7, 93.5)	24.7 (7.8, 56.2)	92.2 (89.0, 94.6)	88.6 (85.4, 91.3)
2013	25.1 (14.2, 40.4)	0.0 -	33.5 (12.4, 64.2)	31.5 (20.6, 45.0)	64.8 (41.6, 82.6)	91.8 (79.4, 97.0)	91.5 (88.2, 93.9)	79.8 (55.6, 92.6)	66.5 (26.5, 91.6)	88.1 (84.7, 90.9)	75.8 (70.8, 80.2)

Table D2: Availability of antimalarials, among outlets stocking at least one antimalarial, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not for profit	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Sulfadoxine-Pyrimethamine											
2009	69.1 (50.8, 82.9)	35.4 (9.0, 75.2)	97.4 (82.9, 99.7)	62.7 (44.2, 78.2)	38.5 (31.0, 46.6)	94.3 (80.3, 98.5)	79.5 (70.4, 86.4)	76.7 (61.9, 87.0)	78.6 (56.9, 91.1)	78.3 (69.8, 84.9)	77.5 (69.5, 83.9)
2011	59.3 (43.3, 73.5)	85.7 (38.4, 98.3)	41.8 (10.8, 80.9)	58.0 (45.6, 69.5)	45.3 (31.3, 60.1)	99.7 (98.3, 99.9)	79.4 (69.9, 86.5)	78.1 (55.5, 91.1)	81.0 (55.9, 93.5)	77.4 (69.9, 83.6)	76.0 (69.2, 81.7)
2013	46.7 (30.8, 63.3)	82.2 (25.7, 98.4)	33.5 (12.4, 64.2)	48.5 (35.0, 62.3)	30.6 (14.4, 53.7)	87.2 (71.7, 94.8)	76.7 (70.7, 81.8)	51.0 (29.2, 72.4)	19.0 (5.2, 50.1)	70.3 (64.5, 75.4)	65.5 (59.6, 71.1)
Oral artemisinin monotherapy											
2009	4.7 (1.9, 11.4)	1.7 (0.3, 8.5)	2.6 (0.3, 17.1)	4.1 (1.8, 9.2)	52.6 (34.8, 69.7)	97.1 (91.4, 99.1)	46.7 (36.1, 57.7)	34.2 (18.7, 54.1)	16.5 (1.8, 68.3)	45.9 (35.7, 56.4)	43.8 (34.0, 54.1)
2011	14.9 (7.8, 26.6)	0.0 -	33.9 (8.0, 75.1)	16.8 (9.6, 27.7)	17.7 (8.5, 33.1)	99.5 (97.3, 99.9)	36.2 (27.7, 45.6)	19.2 (8.7, 37.2)	1.0 (0.1, 9.9)	35.0 (27.3, 43.5)	33.6 (26.7, 41.4)
2013	3.0 (1.2, 6.9)	0.0 -	0.0 -	2.5 (1.0, 5.9)	10.1 (4.7, 20.5)	84.0 (67.3, 93.1)	25.5 (20.1, 31.8)	23.4 (10.1, 45.3)	0.0 -	24.6 (19.6, 30.3)	19.8 (15.8, 24.4)
Non-oral artemisinin monotherapy											
2009	24.7 (7.1, 58.2)	0.0 -	80.8 (30.3, 97.6)	20.5 (6.3, 50.0)	7.0 (1.9, 22.7)	12.7 (4.2, 32.9)	6.0 (1.8, 18.2)	0.0 -	0.0 -	5.5 (1.7, 15.9)	6.2 (2.4, 15.4)
2011	23.9 (14.0, 37.8)	0.0 -	46.5 (17.3, 78.3)	25.9 (16.9, 37.5)	31.7 (20.4, 45.6)	60.1 (36.0, 80.0)	6.0 (2.8, 12.7)	0.0 -	0.0 -	8.8 (5.3, 14.2)	10.1 (6.4, 15.3)
2013	39.7 (25.0, 56.6)	9.6 (1.1, 50.0)	0.0 -	34.5 (22.4, 49.0)	54.3 (36.3, 71.3)	72.0 (49.7, 87.0)	19.0 (13.6, 25.9)	0.0 -	0.0 -	20.4 (15.4, 26.7)	23.5 (18.5, 29.4)
Any treatment for severe malaria											
2009	2.6 (0.4, 15.9)	0.0 -	0.0 -	2.1 (0.3, 12.6)	0.1 (<0.1, 0.6)	1.6 (0.5, 5.4)	0.0 -	0.0 -	0.0 -	<0.1 (<0.1, <0.1)	0.1 (<0.1, 0.6)
2011	29.1 (18.0, 43.5)	0.0 -	49.5 (19.1, 80.3)	30.6 (20.7, 42.7)	43.6 (32.7, 55.3)	60.3 (36.3, 80.2)	7.1 (3.4, 14.4)	0.4 (0.1, 3.3)	0.7 (0.1, 7.4)	10.6 (6.5, 16.7)	12.1 (8.0, 18.0)
2013	40.1 (25.3, 56.9)	9.6 (1.1, 50.0)	16.0 (1.3, 73.9)	36.0 (23.8, 50.3)	56.7 (38.2, 73.5)	72.0 (49.7, 87.0)	20.6 (14.9, 27.7)	0.0 -	0.0 -	21.9 (16.7, 28.2)	25.0 (19.9, 30.8)

* Antimalarial-stocking outlets have at least one antimalarial in stock on the day of the survey, verified by presence of at least one antimalarial recorded in the antimalarial audit sheet.

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Table D3: Antimalarial market composition, across survey rounds

Outlet type, among outlets with at least 1 antimalarial in stock on the day of the survey: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
	%	%	%	%	%	%	%	%	%	%
2009, N=2,090	4.1 (2.2, 7.3)	1.0 (0.4, 2.4)	0.1 (<0.1, 0.3)	5.1 (3.0, 8.8)	2.6 (0.8, 7.9)	1.0 (0.4, 2.6)	80.8 (73.5, 86.5)	9.3 (5.9, 14.5)	1.2 (0.4, 3.8)	94.9 (91.2, 97.0)
2011, N=1,486	6.2 (4.6, 8.4)	0.3 (0.1, 1.1)	0.9 (0.4, 2.0)	7.4 (5.7, 9.7)	6.6 (4.5, 9.5)	2.1 (1.1, 4.1)	78.6 (73.3, 83.1)	3.6 (2.2, 5.9)	1.6 (0.4, 5.9)	7.4 (92.6)
2013, N=1,714	16.8 (12.4, 22.4)	1.7 (0.5, 6.0)	1.6 (0.4, 5.9)	20.1 (14.8, 26.7)	6.0 (3.9, 9.2)	1.1 (0.6, 2.0)	64.7 (57.4, 71.4)	6.8 (3.8, 12.0)	1.3 (0.4, 3.6)	79.9 (73.3, 85.2)

* Excluding booster sample outlets. Outlets with at least one antimalarial in stock on the day of the survey, verified by presence of at least one antimalarial recorded in the antimalarial audit sheet.

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Table D4a: Price of tablet formulation antimalarials, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Any ACT										
2009	\$0.00 [0.00-2.96] ⁽²²⁹⁾	\$0.81 [0.00-1.35] ⁽¹⁰⁾	\$0.81 [0.81-4.71] ⁽¹⁰⁾	\$0.81 [0.00-2.70] ⁽²⁴⁹⁾	\$3.37 [1.35-5.73] ⁽²⁰⁸⁾	\$4.31 [3.37-5.73] ^(2,938)	\$4.04 [2.70-5.05] ⁽⁷⁹⁸⁾	\$4.72 [3.37-6.06] ⁽⁵²⁾	- -	\$4.04 [2.70-5.31] ^(3,996)
2011	\$0.00 [0.00-0.00] ⁽¹⁶⁹⁾	\$3.21 [0.00-3.21] ⁽⁸⁾	\$2.57 [0.64-3.21] ⁽¹⁶⁾	\$0.00 [0.00-2.14] ⁽¹⁹³⁾	\$3.21 [1.60-4.54] ⁽⁷⁵⁾	\$3.21 [2.41-4.01] ⁽⁴¹³⁾	\$1.87 [1.07-3.21] ^(2,381)	\$1.60 [1.34-2.49] ⁽⁶⁴⁾	\$1.43 [1.43-1.43] ⁽⁵⁾	\$2.14 [1.07-3.21] ^(2,938)
2013	\$0.00 [0.00-0.00] ^(2,361)	\$0.00 [0.00-0.69] ⁽⁶⁾	\$0.87 [0.65-1.52] ⁽⁷⁾	\$0.00 [0.00] ^(2,374)	\$1.73 [1.08-2.60] ⁽¹⁰⁵⁾	\$2.17 [1.30-3.12] ⁽⁵⁵²⁾	\$1.45 [0.95-2.31] ^(2,787)	\$1.95 [1.30-3.69] ⁽¹⁸⁴⁾	\$0.87 [0.87-10.41] ⁽⁵⁾	\$1.52 [1.04-2.60] ^(3,633)
Artemether lumefantrine										
2009	\$0.00 [0.00-0.00] ⁽¹¹⁶⁾	\$0.00 [0.00-0.00] ⁽³⁾	\$4.72 [4.72-4.72] ⁽⁵⁾	\$0.00 [0.00-0.00] ⁽¹²⁴⁾	\$5.73 [4.04-6.74] ⁽¹⁰²⁾	\$4.72 [4.04-5.73] ^(1,259)	\$4.72 [3.71-5.73] ⁽²⁵³⁾	\$5.05 [4.38-6.06] ⁽²⁵⁾	- -	\$4.72 [4.04-5.73] ^(1,639)
2011	\$0.00 [0.00-0.00] ⁽¹⁵⁹⁾	\$3.21 [0.00-3.21] ⁽⁸⁾	\$2.57 [0.64-3.21] ⁽¹⁵⁾	\$0.00 [0.00-1.28] ⁽¹⁸²⁾	\$2.94 [1.07-3.74] ⁽⁵⁴⁾	\$3.21 [2.30-3.74] ⁽²⁶⁴⁾	\$1.78 [1.07-3.21] ^(1,871)	\$1.78 [1.34-2.49] ⁽⁴⁹⁾	\$1.43 [1.43-1.43] ⁽⁴⁾	\$2.14 [1.07-3.21] ^(2,242)
2013	\$0.00 [0.00-0.00] ^(1,814)	\$0.00 [0.00-0.69] ⁽⁶⁾	\$0.87 [0.87-1.30] ⁽⁴⁾	\$0.00 [0.00-0.00] ^(1,824)	\$1.73 [1.08-2.17] ⁽⁸³⁾	\$2.08 [1.30-3.12] ⁽³⁷³⁾	\$1.30 [0.87-2.17] ^(2,352)	\$1.73 [1.30-3.47] ⁽¹⁷¹⁾	\$0.87 [0.87-10.40] ⁽⁵⁾	\$1.45 [0.92-2.38] ^(2,984)
Artesunate amodiaquine										
2009	\$2.36 [1.68-3.23] ⁽⁷⁵⁾	\$1.35 [0.81-1.35] ⁽⁵⁾	\$0.81 [0.81-0.81] ⁽⁵⁾	\$1.68 [0.81-2.96] ⁽⁸⁵⁾	\$1.35 [1.35-2.70] ⁽⁷¹⁾	\$4.58 [3.37-6.74] ⁽⁸⁸⁸⁾	\$3.71 [2.02-4.72] ⁽⁴¹⁶⁾	\$4.04 [2.70-5.39] ⁽²²⁾	- -	\$3.71 [2.16-4.72] ^(1,397)
2011	\$2.14 [0.00-10.69] ⁽⁹⁾	- -	\$2.57 (1)	\$2.14 [0.00-10.69] ⁽¹⁰⁾	\$3.47 [2.94-5.88] ⁽¹¹⁾	\$2.67 [2.41-3.74] ⁽⁶⁴⁾	\$2.14 [1.07-2.67] ⁽³¹⁴⁾	\$1.60 [1.34-1.87] ⁽¹¹⁾	- -	\$2.14 [1.28-3.21] ⁽⁴⁰⁰⁾
2013	\$0.00 [0.00-0.00] ⁽⁵¹⁷⁾	- -	\$0.00 [0.00-0.00] ⁽³⁾	\$0.00 [0.00-0.00] ⁽⁵²⁰⁾	\$1.73 [1.73-5.20] ⁽¹⁸⁾	\$1.21 [0.87-2.60] ⁽⁷¹⁾	\$1.73 [1.26-3.03] ⁽¹⁹⁵⁾	\$0.78 [0.78-3.47] ⁽²⁾	- -	\$1.73 [1.21-3.03] ⁽²⁸⁶⁾
Quality-assured ACT (QAAC)										
2009	\$0.00 [0.00-2.36] ⁽⁷⁹⁾	\$0.81 [0.00-1.35] ⁽⁸⁾	\$0.81 [0.00-0.81] ⁽⁶⁾	\$0.81 [0.00-2.36] ⁽⁹³⁾	\$1.35 [1.35-1.62] ⁽⁷⁴⁾	\$6.74 [4.38-7.41] ⁽⁵¹⁹⁾	\$4.04 [2.02-5.39] ⁽³⁸⁸⁾	\$5.39 [2.70-6.74] ⁽²⁰⁾	- -	\$4.04 [2.16-5.73] ^(1,001)
2011	\$0.00 [0.00-0.00] ⁽¹³⁵⁾	\$3.21 [0.00-3.21] ⁽⁸⁾	\$2.14 [0.64-3.21] ⁽¹³⁾	\$0.00 [0.00-0.80] ⁽¹⁵⁶⁾	\$1.87 [0.80-3.21] ⁽⁴⁵⁾	\$1.60 [0.80-2.85] ⁽¹³⁸⁾	\$1.34 [0.80-2.14] ^(1,663)	\$1.60 [1.34-1.87] ⁽⁴⁶⁾	\$1.34 [1.34-1.60] ⁽²⁾	\$1.34 [0.80-2.41] ^(1,894)
2013	\$0.00 [0.00-0.00] ^(2,194)	\$0.00 [0.00-0.69] ⁽⁵⁾	\$0.87 [0.65-1.30] ⁽⁶⁾	\$0.00 [0.00-0.00] ^(2,205)	\$1.73 [1.08-1.73] ⁽⁷⁷⁾	\$1.30 [1.08-1.73] ⁽²¹⁷⁾	\$1.30 [0.87-1.73] ^(2,083)	\$1.73 [1.16-2.38] ⁽¹⁴⁸⁾	\$0.87 [0.87-10.41] ⁽⁵⁾	\$1.30 [0.87-1.73] ^(2,530)

Table D4a: Price of tablet formulation antimalarials, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
QAACT with the "green leaf" logo										
2009	-	-	-	-	-	-	-	-	-	-
2011	\$0.00 [0.00-0.80] ⁽⁶⁸⁾	\$0.00 [0.00-0.00] ⁽⁷⁾	\$2.67 [0.64-2.67] ⁽⁸⁾	\$0.00 [0.00-1.34] ⁽⁸³⁾	\$1.87 [0.80-3.21] ⁽³⁵⁾	\$0.80 [0.64-2.14] ⁽¹¹¹⁾	\$1.34 [0.80-2.14] ^(1,448)	\$2.60 [1.34-2.14] ⁽⁴¹⁾	\$1.34 [1.34-1.60] ⁽²⁾	\$1.34 [0.80-2.14] ^(1,637)
2013	\$0.00 [0.00-0.00] ^(1,540)	\$0.87 [0.69-0.87] ⁽³⁾	\$0.87 [0.43-0.87] ⁽³⁾	\$0.00 [0.00-0.00] ^(1,546)	\$1.73 [1.08-1.73] ⁽⁷⁰⁾	\$1.21 [1.08-1.73] ⁽¹⁷⁶⁾	\$1.30 [0.87-1.73] ^(1,816)	\$1.73 [1.16-2.31] ⁽¹³²⁾	\$0.87 [0.87-10.41] ⁽⁴⁾	\$1.30 [0.87-1.73] ^(2,198)
QAACT without the "green leaf" logo										
2009	-	-	-	-	-	-	-	-	-	-
2011	\$0.00 [0.00-0.00] ⁽⁶⁷⁾	\$3.21 ⁽¹⁾	\$0.64 [0.64-8.55] ⁽⁵⁾	\$0.00 [0.00-0.00] ⁽⁷³⁾	\$2.14 [1.07-2.14] ⁽²⁷⁾	\$4.81 [2.67-5.35] ⁽²⁷⁾	\$2.67 [1.28-4.54] ⁽²¹⁵⁾	\$0.32 [0.32-0.69] ⁽⁵⁾	-	\$2.67 [1.28-4.81] ⁽²⁵⁷⁾
2013	\$0.00 [0.00-0.00] ⁽⁶⁵⁴⁾	\$0.00 [0.00-0.00] ⁽²⁾	\$1.30 [0.65-5.20] ⁽³⁾	\$0.00 [0.00-0.00] ⁽⁶⁵⁹⁾	\$1.21 [1.21-5.20] ⁽⁷⁾	\$1.73 [0.87-3.47] ⁽⁴⁰⁾	\$1.08 [0.87-1.73] ⁽²⁶⁷⁾	\$2.60 [2.08-2.60] ⁽¹⁶⁾	\$20.81 ⁽¹⁾	\$1.16 [0.87-1.95] ⁽³³¹⁾
Non-quality assured ACT										
2009	\$3.03 [0.00-4.11] ⁽¹⁵⁰⁾	\$0.00 [0.00-0.00] ⁽²⁾	\$4.72 [4.72-4.72] ⁽⁴⁾	\$3.71 [0.00-4.11] ⁽¹⁵⁶⁾	\$4.55 [3.37-5.73] ⁽¹³⁴⁾	\$4.04 [3.37-5.39] ^(2,419)	\$3.79 [3.03-4.93] ⁽⁴¹⁰⁾	\$4.72 [3.37-5.39] ⁽³²⁾	-	\$4.04 [3.03-5.05] ^(2,995)
2011	\$2.67 [0.00-5.35] ⁽³⁴⁾	-	\$2.57 [2.57-3.21] ⁽³⁾	\$2.67 [0.00-5.35] ⁽³⁷⁾	\$4.28 [3.47-5.11] ⁽³⁰⁾	\$3.21 [2.67-4.01] ⁽²⁷⁵⁾	\$3.01 [2.14-3.74] ⁽⁷¹⁸⁾	\$2.67 [1.87-3.74] ⁽¹⁸⁾	\$1.43 [1.43-1.43] ⁽³⁾	\$3.21 [2.41-3.74] ^(1,044)
2013	\$0.00 [0.00-0.00] ⁽¹⁶⁷⁾	\$0.00 ⁽¹⁾	\$1.52 ⁽¹⁾	\$0.00 [0.00-0.00] ⁽¹⁶⁹⁾	\$2.93 [2.60-3.25] ⁽²⁸⁾	\$2.60 [2.17-3.47] ⁽³³⁵⁾	\$2.60 [1.73-3.25] ⁽⁷⁰⁴⁾	\$3.69 [3.41-4.34] ⁽³⁶⁾	-	\$2.60 [1.73-3.47] ^(1,103)
Chloroquine										
2009	\$0.17 [0.07-0.17] ⁽⁶⁴⁾	\$5.39 [5.39-5.39] ⁽⁵⁾	\$0.39 [0.39-0.39] ⁽⁵⁾	\$0.17 [0.07-0.33] ⁽⁷⁴⁾	\$0.27 [0.13-0.33] ⁽⁴³⁾	\$0.54 [0.40-0.67] ⁽³⁹¹⁾	\$0.39 [0.17-0.67] ⁽⁶⁸⁴⁾	\$0.40 [0.33-0.67] ⁽³⁷⁾	\$0.26 [0.26-0.26] ⁽⁴⁾	\$0.39 [0.20-0.67] ^(1,159)
2011	\$0.21 [0.08-0.22] ⁽⁹⁾	\$0.05 [0.05-0.13] ⁽²⁾	\$1.07 [1.07-1.07] ⁽³⁾	\$0.22 [0.10-0.26] ⁽¹⁴⁾	\$0.10 [0.10-0.11] ⁽⁵⁾	\$0.37 [0.26-0.64] ⁽⁴⁴⁾	\$0.26 [0.13-0.52] ⁽⁷²⁶⁾	\$0.36 [0.21-0.64] ⁽²⁵⁾	\$0.26 [0.26-0.39] ⁽¹⁰⁾	\$0.26 [0.14-0.53] ⁽⁸¹⁰⁾
2013	\$0.17 [0.17-0.42] ⁽²⁸⁾	-	-	\$0.17 [0.17-0.42] ⁽²⁸⁾	\$0.54 [0.21-0.54] ⁽⁵⁾	\$0.21 [0.13-0.65] ⁽⁴⁶⁾	\$0.21 [0.10-0.42] ⁽³⁵⁸⁾	\$0.65 [0.25-0.87] ⁽²⁴⁾	\$0.52 [0.52-0.52] ⁽⁵⁾	\$0.21 [0.13-0.43] ⁽⁴³⁸⁾

Table D4a: Price of tablet formulation antimalarials, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not-for-profit HF	TOTAL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Median price of a tablet AETD*:	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Sulfadoxine-Pyrimethamine										
2009	\$0.40 [0.00-0.54] ⁽²¹¹⁾	\$0.00 [0.00-0.67] ⁽⁷⁾	\$0.61 [0.61-0.61] ⁽⁹⁾	\$0.40 [0.00-0.67] ⁽²²⁷⁾	\$0.47 [0.34-0.67] ⁽¹⁷¹⁾	\$0.81 [0.40-1.52] ^(1,446)	\$0.54 [0.40-0.81] ^(2,233)	\$0.47 [0.40-0.94] ⁽¹⁹⁸⁾	\$0.34 [0.34-0.47] ⁽¹³⁾	\$0.54 [0.40-0.81] ^(4,061)
2011	\$0.21 [0.00-0.43] ⁽⁶⁷⁾	\$0.37 [0.37-0.43] ⁽⁴⁾	\$0.53 [0.53-0.53] ⁽⁵⁾	\$0.27 [0.00-0.53] ⁽⁷⁶⁾	\$0.53 [0.32-0.80] ⁽³⁷⁾	\$0.53 [0.32-0.86] ⁽²⁰⁸⁾	\$0.43 [0.32-0.64] ^(2,676)	\$0.43 [0.32-0.80] ⁽⁹³⁾	\$0.37 [0.27-0.53] ⁽³¹⁾	\$0.43 [0.32-0.64] ^(3,045)
2013	\$0.00 [0.00-0.09] ⁽⁴⁰⁹⁾	\$0.22 [0.22-0.22] ⁽⁴⁾	\$0.43 (1)	\$0.00 [0.00-0.22] ⁽⁴¹⁴⁾	\$0.43 [0.35-1.08] ⁽³¹⁾	\$0.43 [0.30-0.65] ⁽¹⁸⁵⁾	\$0.43 [0.30-0.52] ^(1,955)	\$0.43 [0.30-0.87] ⁽¹³¹⁾	\$0.22 [0.22-0.43] ⁽⁵⁾	\$0.43 [0.30-0.61] ^(2,307)
Oral Artemisinin Monotherapy										
2009	\$2.37 [2.37-2.70] ⁽⁵²⁾	\$1.62 [0.00-3.23] ⁽²⁾	\$6.47 [4.72-10.78] ⁽³⁾	\$2.37 [2.37-2.70] ⁽⁵⁷⁾	\$3.23 [2.16-4.31] ⁽⁸⁴⁾	\$2.91 [2.70-3.37] ⁽⁷⁶⁰⁾	\$3.23 [2.70-3.77] ⁽⁵⁵⁵⁾	\$3.23 [3.03-3.77] ⁽³⁸⁾	\$3.23 (1)	\$3.23 [2.70-3.77] ^(1,438)
2011	\$1.80 [0.43-1.88] ⁽¹²⁾	-	\$5.13 [5.13-5.13] ⁽²⁾	\$1.88 [0.86-1.88] ⁽¹⁴⁾	\$2.57 [1.71-2.57] ⁽¹¹⁾	\$2.41 [2.14-2.57] ⁽⁷⁰⁾	\$2.40 [1.97-2.57] ⁽⁵⁶⁵⁾	\$2.57 [2.57-2.57] ⁽¹⁷⁾	\$2.99 (1)	\$2.41 [2.14-2.57] ⁽⁶⁶⁴⁾
2013	\$2.08 [1.94-2.43] ⁽³²⁾	-	-	\$2.08 [1.94-2.43] ⁽³²⁾	\$2.43 [2.43-2.77] ⁽⁸⁾	\$2.15 [2.08-2.77] ⁽⁴⁵⁾	\$2.43 [2.08-2.43] ⁽³⁰⁵⁾	\$2.77 [2.43-2.77] ⁽¹⁹⁾	-	\$2.43 [2.08-2.77] ⁽³⁷⁷⁾

* AETD - adult equivalent treatment dose - is or the number of milligrams required to treat a 60kg adult (see Annex 11). Information provided by the respondent about price for a specific amount of antimalarial drug (e.g. price per tablet or price per specific package size) was converted to the price per AETD.

Figures in this table are derived using audited products with price information.

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Table D5: Availability of malaria blood testing among antimalarial-stocking outlets*, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ALL Outlets
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of outlets** stocking	2009 N=244 2011 N=101 2013 N=707	2009 N=15 2011 N=10 2013 N=7	2009 N=10 2011 N=9 2013 N=4	2009 N=269 2011 N=120 2013 N=718	2009 N=381 2011 N=94 2013 N=78	2009 N=405 2011 N=35 2013 N=50	2009 N=1,013 2011 N=1,171 2013 N=835	2009 N=127 2011 N=76 2013 N=74	2009 N=11 2011 N=39 2013 N=14	2009 N=1,937 2011 N=1,415 2013 N=1,051	2009 N=2,206 2011 N=1,535 2013 N=1,769
Any malaria blood testing											
2009	27.5 (9.8, 57.0)	0.0 -	86.1 (33.9, 98.7)	22.4 (8.2, 48.4)	37.0 (30.1, 44.4)	2.3 (0.6, 8.0)	1.0 (0.4, 2.5)	2.8 (0.4, 17.4)	0.0 -	2.2 (1.1, 4.5)	3.3 (1.8, 6.0)
2011	25.6 (15.6, 39.0)	0.0 -	87.3 (51.2, 97.8)	31.2 (19.4, 46.0)	37.1 (23.4, 53.2)	6.0 (0.8, 33.8)	0.8 (0.3, 2.4)	0.0 -	0.0 -	3.6 (2.1, 6.2)	5.8 (3.8, 8.8)
2013	49.0 (33.9, 64.4)	8.4 (1.0, 44.3)	49.4 (26.9, 72.2)	45.6 (31.3, 60.7)	62.4 (44.5, 77.5)	7.6 (2.7, 19.7)	7.1 (4.4, 11.3)	0.0 -	0.0 -	10.6 (7.6, 14.6)	18.3 (14.5, 22.8)
	2009 N=244 2011 N=101 2013 N=707	2009 N=15 2011 N=10 2013 N=7	2009 N=10 2011 N=9 2013 N=4	2009 N=269 2011 N=120 2013 N=718	2009 N=381 2011 N=94 2013 N=78	2009 N=405 2011 N=35 2013 N=50	2009 N=1,013 2011 N=1,171 2013 N=835	2009 N=127 2011 N=76 2013 N=74	2009 N=11 2011 N=39 2013 N=14	2009 N=1,937 2011 N=1,415 2013 N=1,051	2009 N=2,206 2011 N=1,535 2013 N=1,769
Microscopic blood tests											
2009	27.5 (9.7, 57.0)	0.0 -	86.1 (33.9, 98.7)	22.4 (8.2, 48.4)	36.1 (29.7, 43.0)	0.7 (0.2, 2.4)	0.6 (0.2, 1.8)	0.0 -	0.0 -	1.5 (0.7, 3.2)	2.6 (1.3, 5.0)
2011	16.3 (9.5, 26.7)	0.0 -	86.9 (51.7, 97.6)	23.4 (13.9, 36.8)	32.7 (19.2, 49.8)	6.0 (0.8, 33.8)	0.0 (<0.1, 0.1)	0.0 -	0.0 -	2.6 (1.4, 4.9)	4.3 (2.5, 7.1)
2013	12.4 (5.4, 25.9)	0.0 -	16.0 (1.3, 73.9)	11.6 (5.3, 23.5)	24.0 (12.0, 42.2)	1.9 (0.3, 11.1)	0.2 (0.0, 1.1)	0.0 -	0.0 -	2.0 (1.2, 3.5)	4.1 (2.4, 6.9)
	2009 N=244 2011 N=101 2013 N=707	2009 N=15 2011 N=10 2013 N=7	2009 N=10 2011 N=9 2013 N=4	2009 N=269 2011 N=120 2013 N=718	2009 N=381 2011 N=94 2013 N=78	2009 N=405 2011 N=35 2013 N=50	2009 N=1,013 2011 N=1,171 2013 N=834	2009 N=127 2011 N=76 2013 N=74	2009 N=11 2011 N=39 2013 N=14	2009 N=1,937 2011 N=1,415 2013 N=1,051	2009 N=2,206 2011 N=1,535 2013 N=1,768
Rapid diagnostic tests (RDTs)											
2009	8.7 (1.8, 33.3)	0.0 -	1.3 (0.1, 12.9)	6.8 (1.3, 27.9)	11.1 (2.7, 36.0)	1.9 (0.5, 6.9)	0.5 (0.1, 1.9)	2.8 (0.4, 17.4)	0.0 -	1.0 (0.3, 2.9)	1.3 (0.5, 3.2)
2011	14.7 (6.4, 30.0)	0.0 -	16.9 (2.4, 62.3)	14.2 (7.0, 26.5)	8.5 (3.3, 19.9)	6.0 (0.8, 33.8)	0.8 (0.3, 2.4)	0.0 -	0.0 -	1.4 (0.6, 3.4)	2.4 (1.5, 4.0)
2013	43.8 (29.4, 59.4)	8.4 (1.0, 44.3)	33.5 (12.4, 64.2)	40.1 (26.7, 55.2)	46.9 (30.3, 64.2)	7.6 (2.7, 19.7)	6.9 (4.3, 11.1)	0.0 -	0.0 -	9.2 (6.4, 13.1)	16.0 (12.3, 20.6)

* Blood-testing availability is reported among outlets that either had antimalarials in stock on the day of the survey or reportedly stocked antimalarials in the previous 3 months.

** Results in this table are derived using responses captured among outlets with blood testing information.

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Table D6: Price of malaria blood testing, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Private
Total median price to consumers:*	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)	Median [IQR] (N of Antimalarials)
Microscopic blood tests										
2009	\$1.68 [0.34-2.02] ⁽⁴²⁾	- -	\$0.67 [0.67-0.67] ⁽⁴⁾	\$1.68 [0.34-2.02] ⁽⁴⁶⁾	\$2.02 [1.35-2.02] ⁽¹⁵⁷⁾	\$1.48 [0.67-2.70] ⁽⁶⁾	\$0.67 [0.67-0.67] ⁽²⁾	- -	- -	\$2.02 [0.67-2.02] ⁽¹⁶⁵⁾
Adult										
2011	\$1.07 [0.53-1.60] ⁽²⁹⁾	- -	\$1.07 [1.07-1.07] ⁽⁶⁾	\$1.07 [1.07-1.60] ⁽³⁵⁾	\$1.60 [1.07-3.21] ⁽³⁵⁾	\$25.66 ⁽¹⁾	\$2.14 ⁽¹⁾	- -	- -	\$1.60 [1.07-3.21] ⁽³⁷⁾
2013	\$0.43 [0.43-0.87] ⁽¹¹⁷⁾	- -	\$1.73 ⁽¹⁾	\$0.43 [0.43-0.87] ⁽¹¹⁸⁾	\$2.17 [0.87-2.17] ⁽⁴⁸⁾	\$2.60 ⁽¹⁾	\$1.30 [1.30-1.30] ⁽²⁾	- -	- -	\$2.17 [1.08-2.17] ⁽⁵¹⁾
Child under age five										
2011	\$1.07 [0.53-1.60] ⁽²⁹⁾	- -	\$1.07 [1.07-1.07] ⁽⁶⁾	\$1.07 [0.53-1.60] ⁽³⁵⁾	\$1.60 [1.07-3.21] ⁽³⁵⁾	\$20.31 ⁽¹⁾	\$2.14 ⁽¹⁾	- -	- -	\$1.60 [1.07-3.21] ⁽³⁷⁾
2013	\$0.43 [0.00-0.43] ⁽¹¹⁷⁾	- -	\$1.73 ⁽¹⁾	\$0.43 [0.00-0.52] ⁽¹¹⁸⁾	\$2.17 [0.87-2.17] ⁽⁴⁷⁾	\$2.60 ⁽¹⁾	\$1.30 ⁽¹⁾	- -	- -	\$2.17 [0.87-2.17] ⁽⁴⁹⁾
Rapid diagnostic tests (RDTs)										
2009	\$2.02 [2.02-2.02] ⁽⁵⁾	- -	- -	\$2.02 [2.02-2.02] ⁽⁵⁾	\$1.35 [0.67-2.02] ⁽⁴¹⁾	\$1.01 [0.34-1.15] ⁽⁹⁾	\$3.37 [3.37-3.37] ⁽²⁾	- -	- -	\$3.37 [1.35-3.37] ⁽⁵²⁾
Adult										
2011	\$1.07 [0.53-1.60] ⁽¹⁹⁾	- -	\$1.60 [1.60-1.60] ⁽³⁾	\$1.07 [1.07-1.60] ⁽²²⁾	\$6.42 [2.14-6.42] ⁽¹⁰⁾	\$25.66 ⁽¹⁾	\$0.53 [0.53-0.80] ⁽⁸⁾	- -	- -	\$0.80 [0.53-6.42] ⁽¹⁹⁾
2013	\$0.00 [0.00-0.00] ⁽³⁶²⁾	\$0.00 ⁽¹⁾	\$0.87 ⁽¹⁾	\$0.00 [0.00-0.00] ⁽³⁶⁴⁾	\$1.30 [0.87-2.17] ⁽³⁸⁾	\$2.17 [2.17-2.60] ⁽⁶⁾	\$0.43 [0.43-0.87] ⁽³⁶⁾	- -	- -	\$0.87 [0.43-1.74] ⁽⁸⁰⁾
Child under five										
2011	\$1.07 [0.00-1.07] ⁽¹⁹⁾	- -	\$1.60 [1.60-1.60] ⁽³⁾	\$1.07 [0.53-1.60] ⁽²²⁾	\$6.42 [2.14-6.42] ⁽¹⁰⁾	\$20.31 ⁽¹⁾	\$0.80 [0.37-0.80] ⁽⁶⁾	- -	- -	\$2.14 [0.80-6.42] ⁽¹⁷⁾
2013	\$0.00 [0.00-0.00] ⁽³⁶¹⁾	\$0.00 ⁽¹⁾	\$0.87 ⁽¹⁾	\$0.00 [0.00-0.00] ⁽³⁶³⁾	\$1.30 [0.87-1.73] ⁽³⁸⁾	\$2.17 [2.17-2.60] ⁽⁶⁾	\$0.43 [0.22-0.87] ⁽³⁴⁾	- -	- -	\$0.87 [0.43-1.30] ⁽⁷⁸⁾

* Total price to the consumer including consultation and/or service fees.

Note: in 2009, cost to consumer was not captured specifically for children under five and adults.

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Table D7: Antimalarial market share, across survey rounds

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/ distributed:	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ANTI-MALARIAL TOTAL*
	%	%	%	%	%	%	%	%	%	%	%
2009											
1. Any ACT	0.4	<0.1	0.2	0.6	0.2	0.4	6.3	0.2	0	7.1	7.7
Quality Assured ACT (QAACT)	0.2	<0.1	0.1	0.3	<0.1	0.1	2.0	<0.1	0	2.1	2.4
QAACT with the "green leaf" logo											
Non-quality-assured ACT	0.2	0	0.1	0.3	0.1	0.4	4.3	0.2	0	5.0	5.2
2. Any non-artemisinin therapy	2.4	<0.1	0.1	2.5	0.7	0.7	76.5	3.3	0.1	81.4	83.9
Sulfadoxine-Pyrimethamine	1.3	<0.1	0.1	1.4	0.3	0.4	43.4	2.4	0.1	46.7	48.1
3. Oral artemisinin monotherapy	<0.1	<0.1	<0.1	<0.1	0.1	0.2	7.6	0.2	<0.1	8.0	8.1
4. Non-oral artemisinin monotherapy	<0.1	0	<0.1	<0.1	<0.1	<0.1	0.4	0	0	0.4	0.4
2011											
1. Any ACT	3.9	<0.1	0.4	4.3	2.0	2.9	19.0	0.1	<0.1	24.0	28.4
Quality Assured ACT (QAACT)	3.4	<0.1	0.4	3.8	1.4	1.0	13.8	0.1	<0.1	16.4	20.1
QAACT with the "green leaf" logo	1.0	<0.1	0.3	1.3	1.3	0.8	12.9	0.1	<0.1	15.1	16.4
Non-quality-assured ACT	0.5	-	<0.1	0.5	0.6	1.9	5.2	<0.1	<0.1	7.7	8.2
2. Any non-artemisinin therapy	2.7	<0.1	0.2	2.9	1.9	5.4	54.7	0.8	0.5	63.4	66.3
Sulfadoxine-Pyrimethamine	1.8	<0.1	0.1	2.0	1.1	3.5	32.9	0.5	0.5	38.5	40.5
3. Oral artemisinin monotherapy	0.1	-	0.3	0.4	0.1	0.8	3.2	<0.1	<0.1	4.4	4.1
4. Non-oral artemisinin monotherapy	0.4	-	0.3	0.7	0.1	0.1	0.3	-	-	0.5	1.2
2013											
1. Any ACT	8.0	0.3	0.5	8.7	1.5	2.3	22.4	3.6	0.0	29.7	38.4
Quality Assured ACT (QAACT)	7.7	0.2	0.2	8.1	1.2	0.8	18.6	2.2	0.0	22.9	30.9
QAACT with the "green leaf" logo	4.0	0.0	0.0	4.0	1.2	0.7	14.9	2.1	0.0	18.9	22.9
Non-quality-assured ACT	0.4	0.1	0.2	0.7	0.3	1.5	3.7	1.3	0.0	6.8	7.5
2. Any non-artemisinin therapy	4.3	0.6	0.2	5.1	1.3	2.3	45.4	3.6	0.1	52.8	57.9
Sulfadoxine-Pyrimethamine	3.3	0.4	0.1	3.9	0.6	1.4	26.2	2.7	0.0	30.9	34.8
3. Oral artemisinin monotherapy	0.0	0.0	0.0	0.0	0.0	0.1	1.6	0.3	0.0	2.0	2.0
4. Non-oral artemisinin monotherapy	0.4	0.0	0.0	0.4	0.1	0.0	1.1	0.0	0.0	1.2	1.6

* Row sum – market share for the specified antimalarial medicine.

** Column sum (within each survey round) – market share for the specified outlet type.

Categories 1 through 4 sums to 100% in the far-right column – antimalarial total column (within in survey round).

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Table D8: Antimalarial market share, across outlet type, across survey rounds

AETDs sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/distributed:	Public Health Facility	Community Health Worker	Private not-for-Profit Facility	ALL Public / Not for-profit	Private for-Profit Facility	Pharmacy	Drug Store	General Retailer	Itinerant Drug Vendor	TOTAL Private
	%	%	%	%	%	%	%	%	%	%
2009										
1. Any ACT	13.6	49.2	61.4	18.3	17.6	30.7	6.8	4.0	0	7.0
Quality Assured ACT (QAACT)	6.4	49.2	33.8	9.7	2.5	3.7	2.2	0.8	0	2.1
QAACT with the "green leaf" logo	-	-	-	-	-	-	-	-	-	-
Non-quality-assured ACT	7.2	0	27.6	8.6	15.1	27.0	4.6	3.2	0	4.9
2. Any non-artemisinin therapy	84.7	50.8	37.7	80.1	74.8	56.7	84.8	91.5	97.3	84.7
Sulfadoxine-Pyrimethamine	45.7	22.6	26.7	43.6	34.4	36.5	49.4	74.4	91.4	50.4
3. Oral artemisinin monotherapy	0.6	0.1	0.5	0.5	7.0	12.2	8.1	4.5	2.8	8.0
4. Non-oral artemisinin monotherapy	1.2	0	0.4	1.1	0.6	0.4	0.4	0	0	0.4
2011										
1. Any ACT	55.7	20.3	41.0	54.0	49.7	31.7	24.6	11.6	1.7	26.1
Quality Assured ACT (QAACT)	48.1	20.3	40.3	47.2	35.6	11.1	17.9	9.1	1.1	17.8
QAACT with the "green leaf" logo	14.6	2.0	33.1	16.7	32.7	8.6	16.7	7.7	1.1	16.4
Non-quality-assured ACT	7.6	-	0.7	6.8	14.1	20.6	6.7	2.5	0.6	8.4
2. Any non-artemisinin therapy	38.3	79.7	25.4	36.8	46.5	58.7	70.8	86.6	97.9	68.9
Sulfadoxine-Pyrimethamine	26.1	55.4	14.5	24.8	28.7	37.7	42.6	52.4	91.8	41.9
3. Oral artemisinin monotherapy	0.8	-	1.6	0.9	2.2	8.5	4.1	1.8	0.5	4.4
4. Non-oral artemisinin monotherapy	5.3	-	32.0	8.3	1.6	1.1	0.4	-	-	0.5
2013										
1. Any ACT	62.5	31.4	72.6	61.1	51.8	47.5	31.8	47.8	4.6	34.7
Quality Assured ACT (QAACT)	59.7	25.3	33.3	56.5	41.5	16.6	26.4	30.0	4.6	26.7
QAACT with the "green leaf" logo	31.1	5.9	0.0	28.2	39.5	14.3	21.2	28.2	4.6	22.0
Non-quality-assured ACT	2.8	6.1	39.3	4.6	10.3	30.9	5.3	17.8	0.0	8.0
2. Any non-artemisinin therapy	33.9	67.7	27.4	35.6	42.7	49.4	64.5	48.4	95.4	61.6
Sulfadoxine-Pyrimethamine	26.1	52.8	23.6	27.6	19.4	28.8	37.3	36.5	10.9	36.0
3. Oral artemisinin monotherapy	0.3	0.0	0.0	0.3	1.0	2.7	2.2	3.8	0.0	2.3
4. Non-oral artemisinin monotherapy	3.2	0.8	0.0	3.0	4.6	0.4	1.5	0.0	0.0	1.4

Categories 1 through 4 sum to 100% within each column (within each survey round).

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Table D10: Provider antimalarial treatment knowledge and practices, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General Retailer	Itinerant Drug Vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of providers who:	2009 N=244 2011 N=103 2013 N=709	2009 N=15 2011 N=10 2013 N=7	2009 N=10 2011 N=9 2013 N=4	2009 N=269 2011 N=122 2013 N=720	2009 N=381 2011 N=97 2013 N=79	2009 N=405 2011 N=38 2013 N=50	2009 N=1,013 2011 N=1,187 2013 N=845	2009 N=127 2011 N=79 2013 N=76	2009 N=11 2011 N=39 2013 N=14	2009 N=1,937 2011 N=1,440 2013 N=1,064	2009 N=2,206 2011 N=1,562 2013 N=1,784
Correctly state the national first-line treatment ^ψ for uncomplicated malaria											
2009	37.5 (26.4, 50.0)	33.6 (12.2, 64.8)	2.7 (0.4, 17.6)	36.2 (24.8, 49.3)	8.9 (2.3, 28.8)	71.8 (37.3, 91.6)	14.2 (10.2, 19.4)	13.1 (7.2, 22.6)	0.0 -	14.3 (10.9, 18.7)	15.5 (12.1, 19.6)
2011	82.9 (70.0, 91.0)	21.7 (5.5, 56.9)	97.4 (81.1, 99.7)	81.5 (67.9, 90.2)	61.6 (50.1, 71.9)	83.4 (53.3, 95.7)	51.3 (43.0, 59.6)	26.6 (17.1, 38.8)	8.7 (1.0, 47.2)	50.6 (43.3, 57.9)	53.2 (45.8, 60.4)
2013	92.4 (83.0, 96.8)	47.2 (8.4, 89.7)	66.5 (35.8, 87.6)	86.8 (74.4, 93.7)	46.2 (25.3, 68.7)	86.2 (69.5, 94.4)	67.2 (60.7, 73.1)	44.7 (22.2, 69.7)	18.8 (5.2, 49.3)	62.8 (56.4, 68.8)	68.1 (62.6, 73.2)
Correctly state the first-line dosing regimen for:											
An adult											
2009	26.2 (14.5, 42.6)	33.6 (12.2, 64.8)	1.3 (0.1, 13.2)	27.4 (16.1, 42.8)	8.2 (2.1, 27.4)	71.0 (36.1, 91.4)	8.7 (6.0, 12.5)	7.7 (3.8, 15.0)	0.0 -	9.1 (6.7, 12.4)	10.1 (7.6, 13.3)
2011	79.1 (64.9, 88.5)	15.4 (3.5, 47.6)	97.4 (81.1, 99.7)	78.0 (63.7, 87.7)	58.3 (45.9, 69.7)	83.4 (53.3, 95.7)	46.2 (38.4, 54.2)	17.7 (11.0, 27.2)	6.5 (0.8, 36.1)	45.6 (38.7, 52.6)	48.2 (41.3, 55.2)
2013	85.1 (72.3, 92.6)	42.1 (7.5, 86.6)	66.5 (35.8, 87.6)	80.2 (67.7, 88.7)	36.6 (19.4, 58.0)	70.4 (45.4, 87.2)	53.8 (47.7, 59.8)	36.8 (16.2, 63.6)	18.8 (5.2, 49.3)	50.5 (44.7, 56.2)	57.0 (52.2, 61.7)
A two-year old child											
2009	34.4 (23.2, 47.6)	33.6 (12.2, 64.8)	1.3 (0.1, 13.2)	33.7 (22.5, 47.2)	8.1 (2.0, 27.1)	17.6 (5.0, 46.5)	7.8 (5.3, 11.3)	4.7 (1.8, 11.5)	0.0 -	7.4 (5.3, 10.4)	8.8 (6.6, 11.8)
2011	80.8 (67.6, 89.4)	1.6 (0.2, 12.8)	84.8 (52.2, 96.6)	77.3 (64.3, 86.6)	55.5 (44.1, 66.4)	79.7 (49.0, 94.1)	39.3 (31.9, 47.2)	17.2 (10.3, 27.2)	6.5 (0.8, 36.1)	39.5 (32.6, 46.9)	42.6 (35.5, 50.0)
2013	86.1 (74.5, 93.0)	18.0 (3.8, 54.9)	16.0 (1.3, 73.9)	75.6 (61.8, 85.5)	31.9 (17.0, 51.6)	73.3 (50.6, 88.0)	51.8 (44.3, 59.2)	38.1 (17.1, 64.7)	18.8 (5.2, 49.3)	48.7 (42.1, 55.3)	54.6 (48.5, 60.6)

Table D10: Provider antimalarial treatment knowledge and practices, by outlet type, across survey rounds

	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General Retailer	Itinerant Drug Vendor	ALL Private	ALL Outlets
	% (95% CI)	% (95% CI)	(95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Proportion of providers who:	2009 N=244 2011 N=103 2013 N=709	2009 N=15 2011 N=10 2013 N=7	2009 N=10 2011 N=9 2013 N=4	2009 N=269 2011 N=122 2013 N=720	2009 N=381 2011 N=97 2013 N=79	2009 N=405 2011 N=38 2013 N=50	2009 N=1,013 2011 N=1,187 2013 N=845	2009 N=127 2011 N=79 2013 N=76	2009 N=11 2011 N=39 2013 N=14	2009 N=1,937 2011 N=1,440 2013 N=1,064	2009 N=2,206 2011 N=1,562 2013 N=1,784
Report an ACT as the most effective antimalarial medicine											
2009	38.5 (23.4, 56.3)	42.1 (13.0, 77.9)	94.9 (72.3, 99.3)	40.1 (24.4, 58.1)	27.5 (20.0, 36.5)	83.3 (57.7, 94.8)	17.3 (11.1, 26.0)	24.1 (12.5, 41.6)	0.0 -	18.8 (12.5, 27.2)	19.9 (13.9, 27.7)
ACT most effective for adults											
2011	60.6 (47.0, 72.7)	24.4 (3.3, 75.1)	56.9 (18.1, 88.8)	58.4 (47.1, 68.9)	51.5 (41.1, 61.7)	97.6 (85.3, 99.6)	46.2 (38.7, 53.9)	18.5 (8.8, 34.8)	8.4 (1.0, 45.6)	45.5 (38.7, 52.5)	46.6 (39.9, 53.4)
2013	93.9 (87.7, 97.0)	31.5 (6.0, 76.8)	49.4 (26.9, 72.2)	85.6 (73.9, 92.5)	56.2 (31.6, 78.1)	82.8 (63.2, 93.1)	65.5 (58.6, 71.9)	64.5 (45.7, 79.7)	29.7 (10.4, 60.5)	64.3 (58.3, 69.9)	69.0 (63.7, 73.9)
ACT most effective for children											
2011	75.5 (62.7, 85.0)	73.1 (29.1, 94.7)	84.4 (52.3, 96.4)	76.4 (64.6, 85.2)	54.0 (38.7, 68.7)	92.6 (61.2, 99.0)	48.6 (41.2, 56.0)	24.8 (15.4, 37.3)	7.2 (5.2, 9.9)	47.9 (41.3, 54.5)	50.2 (43.7, 56.6)
2013	87.4 (72.2, 94.9)	38.7 (7.9, 82.3)	16.0 (1.3, 73.9)	78.4 (56.9, 90.9)	82.1 (61.5, 93.0)	88.9 (73.0, 96.0)	66.8 (60.3, 72.7)	64.7 (42.4, 82.0)	35.2 (10.8, 70.8)	67.5 (61.3, 73.1)	69.9 (64.2, 75.1)

^Ψ At the time of the 2009 and 2011 ACTwatch outlet surveys, artemether lumefantrine was Nigeria's first line treatment for uncomplicated malaria. At the time of the 2013 survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria. Numbers of providers (N) in this table are the total number of providers eligible for table indicators.

Source: ACTwatch Outlet Survey, Nigeria, 2009, 2011, 2013.

Annex 1: ACTwatch Background

ACTwatch is a multi-country research project implemented by PSI (www.psi.org). Standardized tools and approaches are employed to provide comparable data across countries and over time. Project countries include: Benin, Cambodia, the Democratic Republic of Congo, Kenya, Madagascar, Myanmar, Nigeria, Tanzania (currently mainland only, previous work in Zanzibar), Uganda and Zambia. The project was launched in 2008 with funding from the Bill and Melinda Gates Foundation (BMGF), and is currently funded through mid-2016 by the BMGF, UNITAID, and DFID.

ACTwatch is designed to provide timely, relevant, and high quality antimalarial market evidence.² The goal of providing this market evidence is to inform and monitor national and global policy, strategy, and funding decisions for improving malaria case management. ACTwatch is monitoring antimalarial markets in the context of policy shifts and investments in the scale-up of first-line ACT and blood testing using RDTs. This has included adaptation of project methods for the evaluation of the Affordable Medicines Facility-malaria (AMFm) pilot.³ The project implements a set of research tools designed to:

- 1) **Provide a picture of the total market for malaria case management** including: all providers carrying antimalarials and RDTs and providing case management services; the relative antimalarial market share for each provider type; the antimalarial supply chain; and price markups within the supply chain for antimalarials and RDTs.
- 2) **Monitor the readiness of market components for appropriate malaria case management**, including: availability of antimalarials and malaria blood testing; consumer price of antimalarial treatment and malaria blood testing; and provider qualifications, training and knowledge.
- 3) **Monitor the performance of market components for appropriate malaria case management**, including: the relative market share for quality-assured ACT relative to other antimalarial medicines; the demand for appropriate malaria case management captured through consumer knowledge, attitudes, and fever treatment seeking behavior; and the quality of provider service delivery measured against national policies, guidelines and minimum standards.

ACTwatch research tools for malaria market monitoring include:

1. Outlet surveys

Outlet surveys entail collecting quantitative data from all outlets and providers with the potential to sell or distribute antimalarials and/or provide malaria blood testing. These include health facilities, community health workers, pharmacies, drug shops, retail outlets, market stalls, and mobile providers. A screening process identifies outlets that provide antimalarials and/or malaria blood testing. Among these eligible outlets, service providers are interviewed and all antimalarials and RDTs are audited. The audit collects information about each antimalarial and RDT in stock (e.g. brand name, drug active ingredients and strengths, manufacturer, etc.) and retailer reports on consumer price and sale/distribution volumes for each product. A representative sample of outlets is identified within target study domains such that findings from the outlet survey provide estimates of antimalarial and RDT availability, price, and relative market share across the entire market as well as within key market segments.⁴

² Shewchuk T, O'Connell KA, Goodman C, Hanson K, Chapman S, Chavasse D. 2011. The ACTwatch project: methods to describe anti-malarial markets in seven countries. *Malaria Journal*, 10: 325.

³ AMFm Independent Evaluation Team. 2012. *Independent evaluation of Phase 1 of the Affordable Medicines Facility – malaria (AMFm), multi-country independent evaluation report: final report*. Calverton, MD and London: ICF International and London School of Hygiene and Tropical Medicine.

⁴ O'Connell KA, Poyer S, Solomon T, et al. 2013. Methods for implementing a medicine outlet survey: lessons from the anti-malarial market. *Malaria Journal*, 12: 52.

From 2008 through 2014, ACTwatch conducted 35 national outlet surveys across the 10 project countries.⁵ Reports are available at www.actwatch.info, and peer-reviewed publications have appeared in *Malaria Journal*⁶ and *The Lancet*.⁷

2. Supply chain studies

Supply chain studies employ quantitative and qualitative research methods to effectively map the antimalarial supply chain in a given country. The supply chain is mapped from the antimalarial outlets (service delivery points) identified during an outlet survey to national importers and distributors with identification of all mid-level distributors in between. Retail prices are documented along the supply chain to facilitate calculation of commodity mark-ups. From 2008 through 2012, ACTwatch conducted 8 national supply chain studies. Reports are available at www.actwatch.info, and a peer-reviewed publication has appeared in *PLoS One*.⁸

3. Population-based surveys

Population-based surveys are conducted among consumers to document fever treatment-seeking behavior. A representative sample of the target population (caregivers of children and/or adults according to burden and risk) is identified, and a screening tool is used to identify individuals who have recently experienced fever. The surveys investigate the extent to which health care was sought, as well as common sources of care received. Respondent reports of malaria blood testing and antimalarials acquired are documented and summarized. The survey includes measures of demographic and other individual, household/family, and community characteristics that can be used to develop consumer profiles as well as monitor equity in access to malaria case management. From 2008 through 2012, ACTwatch conducted 14 household surveys focused on fever treatment-seeking behavior. Reports are available at www.actwatch.info, and a peer-reviewed publication has appeared in *Malaria Journal*.⁹

4. Service delivery quality monitoring

Service delivery quality is monitored using a set of research tools designed to measure aspects of the interaction between providers and clients. In 2014-2016, ACTwatch will launch service delivery quality monitoring studies in a subset of project countries. The tool or set of tools that is most appropriate and feasible in a given context is employed. These include:

- Exit interviews conducted with target consumers immediately after receiving fever case management services from target providers. A structured interview documents client reports about key aspects of service delivery including malaria blood testing, test results, medicines recommended/prescribed and obtained, counseling, and costs of services and commodities received. Exit interviews are also used to measure client recall and comprehension of provider counseling including instructions for completing prescribed drug regimens, as well as client satisfaction with services provided. Exit interviews may include measures of demographic characteristics to monitor equity in access to services and commodities.
- Simulated client surveys (a.k.a. mystery client surveys) document provider practices in response to specific scenarios in the form of simulated clients. Trained fieldworkers present to providers with symptoms of malaria according to scripted scenarios. Following the interaction with providers, fieldworkers complete a structured checklist indicating key aspects of case management. Providers are not aware that they are under observation

⁵ Surveys in the DRC (2) and Myanmar (3) were sub-national.

⁶ O'Connell K, Gatakaa H, Poyer S, et al. 2011. Got ACTs? Availability, price, market share and provider knowledge of anti-malarial medicines in public and private sector outlets in six malaria-endemic countries. *Malaria Journal*, 10: 326.

⁷ Tougher S, the ACTwatch Group, Ye Y, et al. 2013. Effect of the Affordable Medicines Facility-malaria (AMFm) on the availability, price, and market share of quality-assured artemisinin-based combination therapies in seven countries: a before-and-after analysis of outlet survey data. *Lancet*, 380: 1916-26.

⁸ Palafox B, Patouillard E, Tougher S, et al. 2014. Understanding private sector antimalarial distribution chains: a cross-sectional mixed methods study in six malaria-endemic countries. *PLoS One*, 9(4).

⁹ Littrell M, Gatakaa H, Evance I, et al. (2011). Monitoring fever treatment behavior and equitable access to effective medicines in the context of initiatives to improve ACT access: baseline results and implications for programming in six African countries. *Malaria Journal*, 10: 327.

during simulated client surveys, and therefore the behaviors that are documented may well-represent typical provider behavior.

- Structured observation documents aspects of the provider-client interaction using a checklist. A trained observer completes the checklist designed to document provider compliance with standard practice and procedures as well as aspects of client demand for specific products or services. The observer remains silent during the consultation.

ACTwatch in Nigeria

ACTwatch baseline surveys were conducted in Nigeria in 2008-09 including the outlet survey (2008), supply chain study (2009), and household survey (2009). Follow-up outlet surveys were conducted in 2009, 2011, and 2013. A follow-up household survey was conducted in 2012. All reports are available at www.actwatch.info.

Annex 2: Nigeria Background

Nigeria is located in the West Africa sub-region and is bordered by Niger to the north, Chad to the northeast, Cameroun to the east and Benin to the west. It is the most populous nation in Africa and the eighth most populous country in the world, with an estimated population of 172 million.¹⁰ Over fifty percent of the population is estimated to live in urban areas.

Over 68% of the population continues to live on less than \$1.25 a day (the international income poverty line), and the country ranks 152nd out of 187 in the 2013 Human Development Index. Under-five mortality has dropped significantly, from an estimated 213 per 1000 births in 1990, to 124 per 1000 births in 2012¹¹. Only 23% of children are fully vaccinated. Malaria remains largely unchecked and leads to an estimated 300,000 deaths in children under five each year.¹²

Nigeria is sub-divided into 6 geopolitical zones, 36 states (plus the Federal Capital Territory, Abuja), and 774 Local Government Areas (LGAs).

Healthcare system

The public health system in Nigeria operates through three tiers, linked to the three levels of health care. At the highest level, the Federal Ministry of Health (FMOH) provides policy and technical guidance for the health sector. The FMOH also supports and manages tertiary level care, research and academic “centres of excellence”. State Ministries of Health (SMOH) fund and manage state hospitals, maternities, and teaching colleges. SMOHs are also responsible for the professional development of health sector staff for secondary and primary health care (PHC), from midwives and nurses to Community Health Extension Workers (CHEWS). At the third tier, LGAs are tasked with planning, managing, staffing, supporting and implementing PHC services. Seventy-one percent of Nigerians have access to a PHC facility within five kilometres of their home; however, many of these centres are not functional due to lack of equipment, essential supplies, and qualified staff.¹³

According to a national health facilities census conducted in 2007, the public sector includes 42 teaching hospitals and federal medical centres; 533 secondary-level hospitals, including general and specialist hospitals; and 14,635 primary-level facilities, including 4,149 dispensaries.¹⁴

As a general policy, healthcare consumers are expected to pay for curative services, but preventive services are often subsidized. Health financing has been largely out of pocket and efforts are made to provide public assistance to the socially and economically disadvantaged segments of the population.¹⁵ To reduce the financial barriers that prevent people in Nigeria, especially children, from accessing healthcare services, pre-payment schemes such as the National Health Insurance Scheme (NHIS) are being introduced.¹⁶

The public sector system is highly fragmented, with each disease having its own supply chain system. Government agencies and partners are first-line buyers and purchase medicines directly from manufacturers. Manufacturers bid to supply the government through local and international competitive bid processes, managed by the Tenders Unit of the FMOH. However, donors also supply commodities directly to state-level medical stores, and both States and

¹⁰ President’s Malaria Initiative, (2013). *FY 2014 Malaria Operation Plan: Nigeria*. Accessed 23 October 2014, <http://www.pmi.gov/docs/default-source/default-document-library/malaria-operational-plans/fy14/nigeria_mop_fy14.pdf?sfvrsn=10>.

¹¹ UNICEF, (2013). Accessed 23 October 2014. <http://www.unicef.org/infobycountry/nigeria_statistics.html>

¹² Federal Ministry of Health, (2009). *National Malaria Control Program Strategic Plan 2009-2013*, Abuja: FMOH.

¹³ *Ibid.*

¹⁴ National Primary Healthcare Development Agency, (2007).

¹⁵ Federal Ministry of Health, (2004). *Revised national health policy*, Abuja: FMOH.

¹⁶ Federal Ministry of Health, (2006). *National child health policy (draft)*, Abuja: FMOH.

LGAs have funding for procurement. In anticipation of the AMFm pilot, donors are supporting the development of an improved logistics management information system for malaria commodities.¹⁷

The private sector

The private sector provides over 65% of healthcare delivery in Nigeria.¹⁸ The private health care system consists of formal tertiary-, secondary- and primary facilities, and pharmacies, as well as informal proprietary patent medicine vendors (PPMVs) and drug sellers. Private health facility figures for the period 1999 to 2001 include 2,147 secondary facilities and 7,000 PHC facilities.¹⁹ For the same period, there were a total of 2,751 registered pharmacies, and an estimated 36,000 PPMVs (2002 estimate). PPMVs are usually the first choice in health care and are a recognized primary source of manufactured drugs for both rural and urban populations, especially the poor.^{20,21,22} In addition to selling drugs, they are also a major source of advice about illness and drug therapy.²³

The public and private sectors have distinct and independent drug supply chains, although both are regulated by the National Agency for Food and Drug Administration and Control (NAFDAC). Quality control is provided by NAFDAC at the point of entry for imported products and at the factory gate for locally manufactured products. The NAFDAC does not have a WHO-qualified Quality Control Laboratory and therefore external laboratories are contracted to conduct testing.²⁴

Procurement in the private sector is informed by government treatment guidelines, but predominantly driven by demand. In-country manufacturers are a key source of commodities for Nigerian wholesalers and distributors: there are almost 40 nationally registered ACTs that are manufactured in country.²⁵ For products manufactured outside of Nigeria, it is common practice for an importer to act as the sole agent for a manufacturer. While importers are free to choose their suppliers, a tendency to enter into exclusivity agreements is fostered by the stringency of the registration requirements, the amount of time that it takes to develop a relationship with the supplier, and the amount of investment that goes into developing the local market for the imported product.

Malaria risk and burden

Malaria is endemic in Nigeria and 97% of the population is at risk. The country exhibits five ecological strata from south to north which define the seasonality and intensity of malaria transmission, and vector species dominance: mangrove swamps, rain forest, guinea-savannah, Sudan-savannah and Sahel-savannah. The duration of the transmission season decreases from perennial in the south to around 3 months in the north. In the northern part of the country, transmission is highly endemic during the short wet season as compared with general low transmission during the long dry season. In the southern part of the country, transmission is stable and uniform throughout the year. Malaria prevalence in children under-five ranges from 21% to 50% across the regions (Figure X1).

¹⁷ President's Malaria Initiative, (2010). *FY 2011 Malaria Operation Plan: Nigeria*. Accessed 16 March 2011, <www.pmi.gov/countries/mops/fy11/nigeria_mop-fy11.pdf>.

¹⁸ Onwujekwe, O., Ojukwu, J., Uzochukwu, B., Dike, N., Shu, E., (2005). Where do people from different socio-economic groups receive diagnosis and treatment for malaria in southeast Nigeria. *Annals of Tropical Medicine and Parasitology*, 99(5): 473–81.

¹⁹ Federal Ministry of Health (2009). *Malaria Strategic Plan 2009-2013: A Road Map for Malaria Control in Nigeria*. Abuja: FMOH and National Malaria Control Program.

²⁰ Uzochukwu, B.S.C. and Onwujekwe, O.E., (2004). Socio-economic differences and health seeking behaviour for the diagnosis and treatment of malaria: a case study of four local government areas operating the Bamako initiative program in south-east Nigeria. *International Journal of Equity in Health*, 3:6.

²¹ Uzochukwu, B.S.C., Onwujekwe E.O., Onoka C.A., Ughasoro M.D., (2008). Rural-urban differences in maternal responses to childhood fever in south east Nigeria. *PLoS ONE*, 3:e1788.

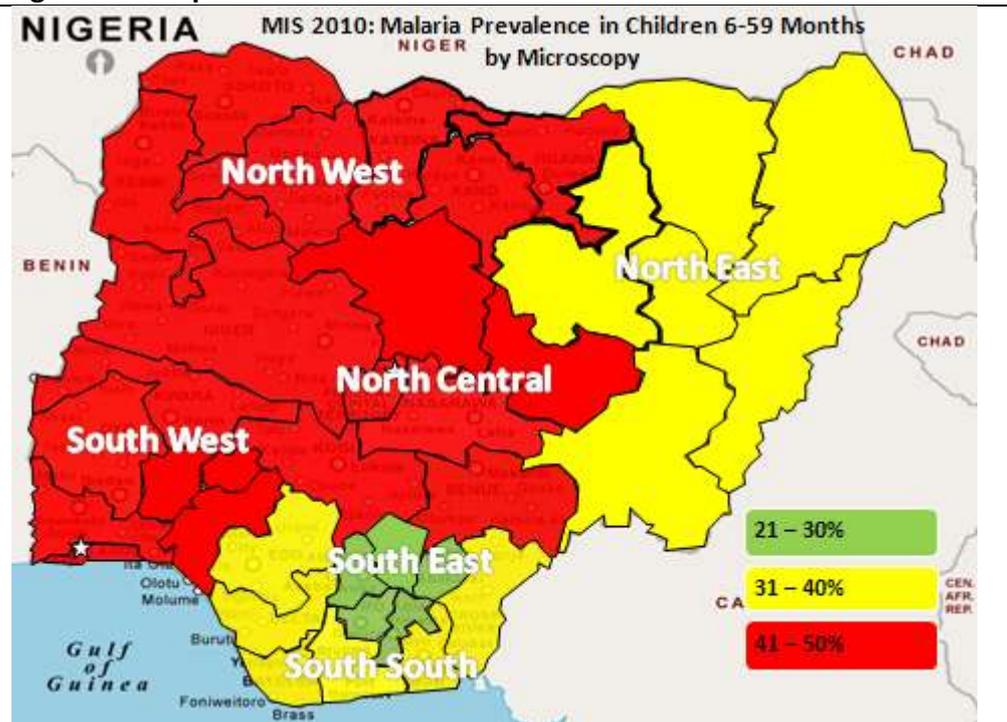
²² Oladepo, O., et al., (2008). *Malaria treatment in Nigeria: the role of patent medicine vendors. Future Health Systems Nigeria, Policy Brief 1*, <<http://www.futurehealthsystems.org/publications/category/nigeria>>.

²³ Ross-Degnan, D., et al.,(1996). The impact of face-to-face educational outreach on diarrhea treatment in pharmacies. *Health Policy and Planning*, 11:308-318.

²⁴ President's Malaria Initiative, (2013). *FY 2014 Malaria Operation Plan: Nigeria*. Accessed 23 October 2014, <http://www.pmi.gov/docs/default-source/default-document-library/malaria-operational-plans/fy14/nigeria_mop_fy14.pdf?sfvrsn=10>.

²⁵ *Ibid.*

Figure X1: Map of Malaria Prevalence



Source: PMI FY2014 Malaria Operational Plan.

Malaria is considered to be a major public health problem in Nigeria, causing more than 50% of the disease burden²⁶ and almost 50% of all-cause health expenditure.²⁷ Twenty percent of all hospital admissions, 30% of outpatient visits, and 10% of hospital deaths are attributable to malaria, and half of Nigeria's population is exposed to at least one episode of malaria every year.²⁸ Results of a modelling exercise presented in the National Malaria Control Program (NMCP) Strategic Plan 2009-2013 show that malaria accounts for an estimated 300,000 deaths in children under five each year, and 11% of the maternal mortality burden in Nigeria. Malaria is responsible for 25% of all infant-related mortality and 30% of child-related mortality²⁹. In relative terms, Nigeria contributes more than a third of the total African malaria burden.³⁰

Malaria case management guidelines

Diagnosis

The current Nigerian National Guidelines for Diagnosis and Treatment of Malaria strongly recommend that all suspected cases of malaria be confirmed by parasitological diagnosis, microscopy or Rapid Diagnostic Test, and are in line with the 2010 WHO recommendations. The NMCP has set scale-up targets for biological diagnosis at 40% by 2013 and 60% by 2014. The aim is to have microscopy available in hospitals, large primary health centres and tertiary care facilities and RDTs available at secondary facilities where microscopy is not available. While many drug vendors have informal training on symptom identification and are authorized to dispense treatment, PPMVs are not licensed to perform diagnostic tests. According to the MICS 2011, 8% of children under five with a fever were given a blood test, an increase from the MIS 2010 (5%), but far from the targets set by the NMCP.

²⁶ Federal Ministry of Health, National Malaria Control Program, (2005). *National Antimalarial Treatment Guidelines*, Abuja: FMOH.

²⁷ Onwujekwe, O., Chima, R., Okonkwo, P. (2000). Economic burden of malaria illness versus that of a combination of all other illnesses. A study in five malaria holo endemic communities. *Health Policy* 54: 143-159.

²⁸ Okeke, T.A., Uzochukwu, B.S.C., Okafor, H.U., (2006). An in-depth study of patent medicine sellers' perspectives on malaria in a rural Nigerian community. *Malaria Journal*, 5: 97.

²⁹ National Population Commission, Nigeria and ICF Macro, (2009). *Nigeria Demographic and Health Survey 2008*. Abuja: National Population Commission, Nigeria and ICF Macro.

³⁰ Roll Back Malaria, (2008). *The Global Malaria Action Plan*, accessed 16 March 2011 <<http://www.rollbackmalaria.org/gmap/>>.

Treatment

In January 2005 the NMCP adopted artemether-Lumefantrine (AL) as the first-line treatment for uncomplicated malaria.³¹ Artesunate amodiaquine (ASAQ) is recommended as the alternative first-line treatment, should AL not be available. At the time of the policy change, AL and ASAQ were prescription-only medications; NAFDAC reclassified these medicines as over-the-counter (OTC) in 2006. The NMCP is studying the efficacy of the first-line treatment (AL) at 14 sites across Nigeria.

Oral artemisinin monotherapies have been banned in Nigeria since 2006, under legislation that prohibits their importation and local production. In order to support broader adoption of ACTs, NAFDAC stopped registering new artemisinin monotherapies in 2006. Licenses for the sale of oral artemisinin monotherapies were not renewed when they expired (which was by late 2009). In order to mitigate the risk of artemisinin monotherapy stockpiling prior to the end of valid registration, NAFDAC provided several incentives to importers, including a reduction in the cost of registering ACTs.

Quinine is recommended for treating uncomplicated malaria in children weighing less than 5 kilos and in pregnant women during the first trimester. Intramuscular (IM) artemether as well as intravenous (IV) and IM artesunate and quinine are recommended for the treatment of severe malaria. Artesunate suppositories are also used at peripheral health facilities where parenteral treatment cannot be administered (they are included in the national policy on malaria treatment as a pre-referral treatment only).

New integrated community case management policy guidelines were developed by the NMCP and the Family Health Department and have been approved by the MOH to recommend the use of RDTs for malaria diagnosis, ACTs for malaria treatment, amoxicillin for pneumonia and ORS and zinc for diarrhoea.

Financing and major initiatives to improve case management

Since 2007, funding for malaria control has dramatically increased. Nigeria signed a \$461 million Global Fund Round 8 grant in 2008, and additional funds were made available through the World Bank Malaria Booster Program, the UK Department for International Development (DFID) and the President's Malaria Initiative (PMI). The Round 8 grant contributed to providing universal coverage with LLINs; continued rollout of ACT; and increased access to malaria diagnostics, including rollout of RDTs to primary health facilities. Global Fund Round 8 Phase 2 is ending in 2014, so there may be gaps in ACT availability, but Nigeria has received no cost extensions for a number of projects (i.e. the World Bank Booster Program), and DFID has indicated they will continue with current funding levels over the next two years.³² The NMCP works to coordinate donor efforts to achieve maximum coverage across Nigeria.

Nigeria was one of the targets of the AMFm pilot program, which aimed to decrease the price and increase the availability of ACTs while reducing the prevalence and use of antimalarial monotherapies.³³ AMFm was able to deliver more than 98 million ACTs over two years through various channels, but mostly through the private sector (80%). The program succeeded in reducing the price, but never managed to reach the target, and several monotherapies are still in circulation. While the program was able to drastically increase the availability of ACTs on the Nigerian market, there were significant delays to product delivery and training, causing stock outs and reducing the possible market share for copaid ACTs. The first phase of AMFm ended in 2012 and a transition plan was implemented to integrate it into the Global Fund business model. The need for ACT subsidization in the private sector using the current AMFm model going forward is still under discussion, but the Working Group on Private Sector Case Management is involved in strategy development.³⁴

³¹ Federal Ministry of Health, National Malaria Control Program, (2004b). *National Antimalarial Treatment Policy*. Abuja: FMOH.

³² President's Malaria Initiative, (2013). *FY 2014 Malaria Operation Plan: Nigeria*. Accessed 23 October 2014, <http://www.pmi.gov/docs/default-source/default-document-library/malaria-operational-plans/fy14/nigeria_mop_fy14.pdf?sfvrsn=10>.

³³ AMFm Independent Evaluation Team (2012). *Independent Evaluation of Phase 1 of the Affordable Medicines Facility - malaria (AMFm), Multi-Country Independent Evaluation Report: Final Report*. Calverton, Maryland and London: ICF International and London School of Hygiene and Tropical Medicine.

³⁴ President's Malaria Initiative, (2013). *FY 2014 Malaria Operation Plan: Nigeria*. Accessed 23 October 2014, <http://www.pmi.gov/docs/default-source/default-document-library/malaria-operational-plans/fy14/nigeria_mop_fy14.pdf?sfvrsn=10>.

PMI funding for malaria programming in Nigeria in 2014 is over \$60 million, with the majority of those funds (62%) going towards the procurement of malaria treatment, diagnostic, and prevention products. They will also be supporting efforts to increase training for health workers across both the public and private sector to improve malaria diagnosis and treatment, including pilot projects to improve parasitological diagnosis and integrated case management in the private sector.³⁵

Currently, case management in Nigeria is weak, mostly due to unstable supply chains and poor diagnostics. Different approaches are being explored to improve the supply chain, such as pooled procurement mechanisms and seed stocks. RDT procurement for the public sector has increased and there are plans to expand diagnostics into the private sector and the community level. Efforts are also underway to develop an antimalarial monitoring program and integrate the parallel malaria information system into the HMIS to improve data quality at the national level.³⁶ Other areas being explored include the use of injectable artesunate and seasonal malaria chemoprophylaxis.

³⁵ *Ibid.*

³⁶ *Ibid.*

Annex 3: Outlet Survey Methods

Design and Study Population

ACTwatch implements repeat cross-sectional outlet surveys in project countries. The study population is defined as all outlets with the potential to sell or distribute antimalarial medicines and/or provide malaria blood testing. In Nigeria, this includes the following outlet types:

Public health facilities	Government (federal or state) public facilities including hospitals and health centers.
Community health worker	Community-based health volunteers including Community Health Extension Workers and Role Model Mothers.
Private not-for-profit health facilities	Non-governmental (NGO) or mission/faith-based health facilities including hospitals and clinics.
Private for profit health facilities	Private hospitals, clinics and diagnostic laboratories.
Pharmacies	Pharmacies are licensed by the Pharmacy Council of Nigeria and are authorized to sell all classes of medicines including prescription-only medicines. Pharmacies are regulated by the National Agency for Food and Drug Administration and Control. Pharmacies are owned by registered pharmacists or individuals who employ the services of a registered pharmacist.
Drug stores	Proprietary Patent Medicine Vendors (PPMV) are small to medium sized outlets selling primarily medicines. PPMVs may be registered by the Directorate of Pharmaceutical Services, however many are not registered. PPMVs are legally permitted to sell over-the-counter medicines including antimalarial medicines.
General retailers	Supermarkets, mini-markets and kiosks primarily sell fast-moving consumer goods, food and provisions. Kiosks/tables are points of sale located in non-permanent structures that sell fast-moving goods such as food, beverages and household goods. Although retailers may have over-the-counter medicines including antimalarials available, national authorities do not regulate the sale of medicines by retailers.
Itinerant drug vendors	Mobile providers selling medicines and other goods. They are not registered with any national regulatory authority.

Stratification

The Nigeria outlet survey is stratified to provide estimates for each of six geopolitical zones: North Central, North East, North West, South East, South South, and South West. Zone designation for all localities in the sample frame was obtained from the Nigeria Bureau of Statistics.

Eligibility Criteria

All outlets with the potential to sell or distribute antimalarials are included in the census screening. Outlets are eligible for a provider interview and malaria product audit if they meet at least one of three study criteria: 1) one or more antimalarials reportedly in stock the day of the survey; 2) one or more antimalarials reportedly in stock within the three months preceding the survey; and/or 3) provides malaria blood testing (microscopy or RDT). Outlets that do not serve the general public (e.g. military facilities) were excluded from the study.

Sample Size

The outlet survey was powered to detect a 20 percentage point increase between 2011 and 2013 within each research domain (and nationally) in the indicator, *the proportion of outlets that have quality-assured ACT in stock among all outlets with antimalarials in stock at the time of the survey*. The required sample size for each research domain (six geopolitical zones) was calculated in three steps: 1) determine the required number of antimalarial-stocking outlets; 2) determine the number of outlets to be enumerated to arrive at this number of antimalarial-stocking outlets; and 3) determine the number of clusters for the census to arrive at this number of outlets.

Required number of private sector antimalarial-stocking outlets

The number of antimalarial-stocking outlets required to detect a change over time in availability of ACT between survey rounds is given by:

$$n = \frac{\text{deff} \left[Z_{\alpha} \sqrt{2P(1-P)} + Z_{1-\beta} \sqrt{P_1(1-P_1) + P_2(1-P_2)} \right]^2}{(P_2 - P_1)^2}$$

where:

- n= desired sample size
- P₁= the proportion of antimalarial-stocking outlets with quality-assured ACT in stock in 2011
- P₂= the expected proportion of antimalarial-stocking outlets with quality-assured ACT in stock in 2013.
- P= (P₁+P₂)/2
- Z_{α/2}= The standard normal deviate value for a α type I error (two-sided)
- Z_{1-β}= The standard normal deviate value for a β type II error
- Deff= design effect anticipated due to the cluster survey design. A design effect of 3 was used for all calculations.

The required size for the 2013 survey has been calculated based on the following assumed values of key parameters, taken from the 2011 ACTwatch survey:

	NC	NE	NW	SE	SS	SW
P ₁	0.45	0.53	0.58	0.61	0.63	0.56
P ₂	0.25	0.33	0.38	0.41	0.43	0.36
Z _α	1.96	1.96	1.96	1.96	1.96	1.96
Z _{1-β}	0.84	0.84	0.84	0.84	0.84	0.84
Deff	5.8	2.4	1.3	3.1	2.3	9.5

Applying the above parameters to the stated formula yields the following required sample sizes: NC: 508; NE: 229; NW: 124; SE: 299; SS: 219; SW: 909; Total: 2,287.

Required number of antimalarial-stocking outlets

The estimated total number of outlets enumerated needed for the QAACT availability indicator was determined by the following formula for each geopolitical zone separately:

$$N = n / P_{am}$$

Where P_{am} is the proportion of outlets having antimalarial stocks at the time of the survey among all outlets enumerated. In this equation, the assumptions are as follows: N = desired sample size of all outlets for monitoring availability indicators, n is the number of outlets with antimalarial stocks at the time of the survey. P_{am} is the proportion of outlets with antimalarials in stock at the time of the survey among all outlets enumerated estimated from 2011 survey data for each domain (see below).

	NC	NE	NW	SE	SS	SW
Proportion of outlets with antimalarials in stock	0.208	0.175	0.192	0.222	0.196	0.183

Applying the above parameters to the stated formula yields the following required sample sizes: NC: 2,445; NE: 1,313; NW: 645; SE: 1,345; SS: 1,119; SW: 4,962; Total: 11,829.

Required number of clusters (localities)

The primary sampling approach taken for ACTwatch outlet surveys entails sampling a set of administrative units (geographic clusters) with a corresponding population of approximately 10,000 to 15,000 inhabitants. Clusters are selected with cluster probability proportionate to size (PPS). A census of all outlets with the potential to sell or distribute antimalarials is then conducted in sampled clusters. The most appropriate administrative unit in Nigeria corresponding to this desired population size is locality.

The average number of outlets screened per cluster from the 2011 outlet survey was used to estimate the number of clusters required in 2013 to achieve the desired sample size. Applying these averages to the required number of outlets for the study, the number of clusters required in each domain was: NC: 27; NE: 19; NW: 20; SE: 28; SS: 25; SW: 35; Total: 154.

Sampling

A representative sample of localities was selected in each research domain. From a list of all localities in each domain, the required number of localities was selected with probability proportional to size (PPS). A list of selected localities is provided in Annex 4.

Selection of localities with PPS was completed based on population estimates obtained from the Nigeria Bureau of Statistics. A sampling frame with population sizes was used for selecting the sample because accurate estimates on the total number of outlets per geographic/administrative unit that may be eligible for a medicine outlet survey do not exist. The major assumption in using population figures for sampling is that distribution of outlets and/or distribution of medicines moving through outlets in a given cluster is correlated with population size.

Within each locality, a census of all outlets with the potential to sell or distribute antimalarials and/or provide malaria blood testing was conducted. To achieve a sufficient sample size for estimating key indicators with public health facilities, the geographic area for the outlet census was extended to the LGA level for this outlet type. All public health facilities within LGAs in which the selected communes were located were included in the study.

Data Collection

Interviewers, supervisors, and quality controllers received training that included an orientation to the study and questionnaire, classroom training on completing antimalarial and RDT audits, and a field exercise. Following training, data collection was implemented from November 7 to December 13, 2013.

A structured paper questionnaire was used for all interviews (see Annex 6). A series of screening questions were administered at all outlets to determine eligibility for the survey. Outlets where antimalarial medicines were reportedly sold and/or malaria blood testing was reportedly provided were invited to participate in the survey. Following informed consent procedures, an audit of all available antimalarial medicines and RDTs was conducted. Antimalarial audit information included formulation, package size, brand name, active ingredients and strengths, manufacturer, country of manufacture, reported sale/distribution in the week preceding the survey, retail price, and wholesale price. RDT audit information included brand name, manufacturer, country of manufacture, reported sale/distribution in the week preceding the survey, retail price, and wholesale price. Detailed descriptions of antimalarials and RDTs audited are provided in Annex 7 and Annex 8. In addition to the product audit, a series of questions was administered to the senior-most provider regarding malaria case management knowledge and

practices as well as provider training and qualifications. Geo-coordinates were recorded for each outlet using a handheld Global Positioning System (GPS) unit.

Up to three visits were made to all outlets to complete the screening process, audit, and provider interview as needed (e.g. where outlets were closed or providers were not available).

Data Entry, Processing, and Analysis

Data were double entered and verified using a Microsoft Access database. All data cleaning and analysis was completed using Stata 12.1 (©StataCorp, College Station, TX). Sampling weights were applied to account for variations in probability of selection (see Annex 9) and standard error estimation accounted for clustering at the locality and LGA levels. Indicator definitions are provided in Annex 10.

Protection of Human Subjects

The 2013 outlet survey protocol received ethical approval from the National Health Research Ethics Committee (NHREC) in Nigeria. The PSI Research Ethics Board ceded review to the NHREC in Nigeria. Provider interviews and product audits were completed only after administration of a standard informed consent form and provider consent to participate in the study. Providers had the option to end the interview at any point during the study. Standard measures were employed to maintain provider confidentiality and anonymity.

Annex 4: Sampled Localities

Stratum	State	LGA	Locality	Locality Population
North Central	BENUE	ADO	ODUM	1,673
North Central	BENUE	GBOKO	GBOKO	99,244
North Central	BENUE	GWER EAST	MBAAGIR	1919
North Central	BENUE	KATSINA-ALA	GBOR	1,500
North Central	BENUE	KWANDE	NYIEV	916
North Central	BENUE	MAKURDI	AGAN	1794
North Central	FCT ABUJA	AMAC	WUSE II	85,568
North Central	KOGI	DEKINA	ULAJA	2,004
North Central	KOGI	KABBA/BUNU	EGBEDA OKE	828
North Central	KOGI	OFU	OJUWO	1,608
North Central	KOGI	OKENE	OKENE TOWNSHIP	176,064
North Central	KWARA	EDU	TSARAGI	8915
North Central	KWARA	ILORIN SOUTH	ILORIN	92,480
North Central	KWARA	ISIN	IJARA ISIN	4,576
North Central	KWARA	OFFA	OFFA	86,020
North Central	NASARAWA	AKWANGA	KURMIN TAGWAYE	1,400
North Central	NASARAWA	KEANA	KEANA	12,144
North Central	NASARAWA	KEFFI	KEFFI	20,654
North Central	NIGER	BIDA	BIDA	184,450
North Central	NIGER	EDATI	GBANGBAN	6,174
North Central	NIGER	GURARA	BONU I AND II	1,026
North Central	NIGER	RIJAU	TUNGAN-MAGAJIYA	8,694
North Central	NIGER	SHIRORO	PINA	3,564
North Central	PLATEAU	JOS NORTH	JISHE GYESE	37,248
North Central	PLATEAU	LANGTANG NORTH	ZAMKO	2,567
North Central	PLATEAU	QUA ' AN PAN	PANDAM	2,592
North Central	PLATEAU	RIYOM	KWI	5,402
North East	ADAMAWA	GIREI	BAKOPI	1196
North East	ADAMAWA	HONG	LUGGA	618
North East	ADAMAWA	YOLA SOUTH	WAURU JABBE	12,544
North East	BAUCHI	ALKALERI	GAR	2357
North East	BAUCHI	BAUCHI	KAROFIN MADAKI BAUCHI	12702
North East	BAUCHI	BOGORO	BOGORO	2,065
North East	BAUCHI	GAMAWA	ZINDIWA	5,091
North East	BAUCHI	IBI	SHITAKO	2,081
North East	BAUCHI	ITAS/GADAU	GAMBARAN KORI	1,415
North East	BAUCHI	MISAU	MISAU	52,377
North East	BAUCHI	MISAU	ZADAWA	5,622
North East	BAUCHI	MISAU	ZINDI	1,659
North East	BAUCHI	NINGI	DAN-KOME	1,164
North East	GOMBE	BALANGA	BAMBAM	6,889
North East	GOMBE	BALANGA	LAFIYA	1,125
North East	GOMBE	BALANGA	LAWANTI	1,525
North East	GOMBE	NAFADA(BAJOGA)	BIRIN FULANI	7,440
North East	TARABA	JALINGO	MAYO DASA	11,715
North East	TARABA	SARDAUNA	NGUBIN	1,055
North West	JIGAWA	RINGIM	YAN DUTSE	4,608
North West	JIGAWA	SULE TANKAR-KAR	MAI MA ZARI	1,232
North West	KADUNA	GIWA	SHIKA	21,970
North West	KADUNA	KADUNA SOUTH	SABON GARI	48,106
North West	KADUNA	MAKARFI	TASHAN YARI	6,262
North West	KADUNA	ZANGON-KATAF	TALIGAN MAGAMIYA	1,280
North West	KANO	GABASAWA	YAMMAR KANAWA	1,624
North West	KANO	GARUN MALAM	DAKASOYE	5,040
North West	KANO	KANO MUNICIPAL	KANKAROFI	6,972
North West	KANO	UNGOGO	RIGIYAR ZAKI	24,612
North West	KANO	WARAWA	TAMBURAWAN GABAS	1,720
North West	KATSINA	BAURE	UNGWAR GAMJI	2323
North West	KATSINA	INGAWA	MATALLAWA	1,611

Table X1. Sampled localities

Stratum	State	LGA	Locality	Locality Population
North West	KATSINA	MALUMFASHI	UNGWAR TULE	760
North West	KATSINA	MASHI	MASHI	17,557
North West	KEBBI	JEGA	BASAURA	4,199
North West	KEBBI	WASAGU/DANKO	RIBAH	12,648
North West	SOKOTO	BODINGA	DANCHADI CHILAWA	4,316
North West	SOKOTO	GWADABAWA	MATSE	1,542
North West	ZAMFARA	MARADUN	DOSARA	4,097
South East	ABIA	ABA NORTH	OGBOR	25,440
South East	ABIA	OBINGWA	EHERE	10,024
South East	ABIA	OHAFIA	AMUKE OHAFIA	2,820
South East	ABIA	UMUAHIA SOUTH	ITAJA OLOKORO	5,037
South East	ABIA	UMUAHIA SOUTH	AGBAMA OLOKORO	3243
South East	ANAMBRA	AGUATA	ISUANAOMA-UMUEZE-ISUOFIA	7,790
South East	ANAMBRA	ANAMBRA EAST	IFITE UMUERI	8,096
South East	ANAMBRA	ANAMBRA WEST	ISIARAKA UMUEZE ANAM	2,350
South East	ANAMBRA	ANAOCHA	OBE - AGU AGULU	10,076
South East	ANAMBRA	EKWUSIGO	URUDUNU IFITE-ORAFITE	8,385
South East	ANAMBRA	ONITSHA SOUTH	ODOAKPU-ONITSHA	204673
South East	ANAMBRA	ORUMBA SOUTH	ENUGWU-UMUONYIA	3,300
South East	EBONYI	EZZA NORTH	OHINYA UMUOGHARA	4,320
South East	EBONYI	IVO	AYARAGU UJAGA AMAGU	1,661
South East	EBONYI	OHAIKWU	NGBO COURT	4364
South East	EBONYI	ONICHA	ANYARIGWE UKAWU	6,930
South East	ENUGU	ENUGU NORTH	GRA	21283
South East	ENUGU	UDENU	OBOLLO AFOR AMUTENYI AGU	3,108
South East	ENUGU	NKANU WEST	UMUANEE OZALLA UMUNEBOH	920
South East	ENUGU	ONITSHA SOUTH	UGBO ODOGWU	7197
South East	ENUGU	UDI	IMAMA NGWO AMABOR	1,316
South East	IMO	IDEATO NORTH	UMUMEE	1,280
South East	IMO	MBAITOLI	EZI MBIERI	18,468
South East	IMO	ABOH MBAISE	EZIALA EZIGARAGU	3,435
South East	IMO	ONU IMO	UMUCHEKE OKWE	8,232
South East	IMO	ONITSHA SOUTH	UMUEZE	3055
South East	IMO	OWERRI NORTH	AMAEZE OBIBIEZENA	3,800
Soth South	AKWA IBOM	INI	NKWOT ETOK	2,442
Soth South	AKWA IBOM	OKOBO	OKOPEDI	18720
Soth South	AKWA IBOM	ONNA	IKWE	7,075
Soth South	AKWA IBOM	ORUK -- ANAM	IKOT OKORO	2064
Soth South	AKWA IBOM	UYO	NUNG UYO IDORO	2,728
Soth South	BAYELSA	BRASS	TWON-BRASS	13218
Soth South	BAYELSA	SAGBAMA	SAGBAMA	16478
Soth South	BAYELSA	YENAGOA	FAMGBE	17,063
Soth South	CROSS RIVER	BIASE	ABINI	6,162
Soth South	CROSS RIVER	BOKI	ENYI BOJE	2,356
Soth South	CROSS RIVER	YALA	UTUKPO VILLAGE GABU	1729
Soth South	DELTA	ETHIOPE EAST	ISIOKOLO	3488
Soth South	DELTA	OKPE	OREROKPE	13,384
Soth South	DELTA	UKWUANI	UMUTU	13,734
Soth South	DELTA	WARRI SOUTH	IGBUDU WARRI	18,360
Soth South	EDO	AKOKO EDO	IGARRA	42,180
Soth South	EDO	EGOR	USEH	22,400
Soth South	EDO	IKPOBA-OKHA	OBE	3,700
Soth South	EDO	OWAN WEST	EME ORA	2,637
Soth South	RIVERS	AHOADA WEST	OKARKI	12,640
Soth South	RIVERS	AKUKU TORU	ABONEMA	68,470
Soth South	RIVERS	ETCHE	CHOKOTA	3,938
Soth South	RIVERS	KHANA	KA GWARRA	2,626
Soth South	RIVERS	OYIGBO	OKOLOMA	4,515
Soth South	RIVERS	PORT-HAROURT	ELEKAHIA	25,900
South West	EKITI	IKERE	IKERE-EKITI	138,000
South West	EKITI	ILEJEMEJE	ILUDUN EKITI	8,855
South West	EKITI	IREPODUN/IFELODUN	IGEDE-EKITI	31,031

Table X1. Sampled localities

Stratum	State	LGA	Locality	Locality Population
South West	EKITI	MOBA	IGOGO	23,660
South West	LAGOS	ALIMOSHO	ABORU	50,912
South West	LAGOS	ALIMOSHO	AKESAN	20,296
South West	LAGOS	APAPA	SARI IGANMU	69,608
South West	LAGOS	BADAGRY	ILOGBO	58835
South West	LAGOS	ETI OSA	IKOYI	738
South West	LAGOS	IFAKO IJAYE	OGBA-IFAKO IJAIYE	38709
South West	LAGOS	KOSOFE	AGBOYI III	12,934
South West	LAGOS	MUSHIN	ABULE IGBEHIN	36,208
South West	LAGOS	OJO	OJO	78,590
South West	LAGOS	OSHODI ISOLO	OSHODI	58,090
South West	LAGOS	SHOMOLU	BARIGA	110,440
South West	LAGOS	SURULERE	COKER SURULERE	46,561
South West	OGUN	IFO	OJODU ABIODUN	30,240
South West	OGUN	OBAFEMI- OWODE	ADIGBE	28,160
South West	OGUN	ODEDA	OLODO	1,635
South West	OGUN	SAGAMU	SOTUBO	916
South West	ONDO	IDANRE	ODODE IDANRE	38,160
South West	ONDO	ODIGBO	ONIPETESI	1,188
South West	ONDO	OSE	OKELUSE	9,798
South West	ONDO	OWO	OWO	76,494
South West	OSUN	ILESHA EAST	ILESA	105,640
South West	OSUN	ISOKAN	IKOYI	39,039
South West	OSUN	OLORUNDA	KOBONGBOGBOE	8448
South West	OSUN	OLORUNDA	OSHOGBO	108,160
South West	OYO	ATIBA	BAAGO	1,287
South West	OYO	IBADAN NORTH	SANGO	16,330
South West	OYO	IBADAN SOUTH EAST	ODINJO	26,224
South West	OYO	IWAJOWA	IGANNA	23,072
South West	OYO	ONA- ARA	ABONDE	3,760
South West	OYO	ORELOPE	MODEKE	1750
South West	OYO	SURULERE	IJADO	925

Annex 5: Detailed Sample Description

Table X2: Detailed sample description

	Public Health Facility	Community Health Worker	Private Not-for-Profit Facility	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Outlets
Number of outlets screened (Figure 1 Box B)	723	13	6	111	54	875	3339	27	5148
North Central	107	2	4	9	4	90	292	1	509
Census	11	2	4	8	4	90	292	1	412
Booster	96	0	0	1	0	0	0	0	97
North East	116	7	1	7	3	97	532	16	779
Census	21	7	1	7	3	97	532	16	684
Booster	95	0	0	0	0	0	0	0	95
North West	120	2	0	4	1	87	341	6	561
Census	19	2	0	4	1	84	341	6	457
Booster	101	0	0	0	0	3	0	0	104
South East	118	2	0	23	7	102	472	0	724
Census	8	2	0	23	7	102	472	0	614
Booster	110	0	0	0	0	0	0	0	110
South South	88	0	0	20	9	199	489	2	807
Census	14	0	0	20	9	198	489	2	732
Booster	74	0	0	0	0	1	0	0	75
South West	174	0	1	48	30	300	1213	2	1768
Census	19	0	1	48	30	299	1213	2	1612
Booster	155	0	0	0	0	1	0	0	156
Number of outlets eligible and interviewed (Figure 1 Box D)	709	7	4	99	50	845	76	14	1804
North Central	106	1	4	9	3	87	4	0	214
Census	10	1	4	8	3	87	4	0	117
Booster	96	0	0	1	0	0	0	0	97
North East	115	2	0	7	3	96	6	8	237
Census	20	2	0	7	3	96	6	8	142
Booster	95	0	0	0	0	0	0	0	95
North West	118	2	0	3	1	85	6	5	220
Census	18	2	0	3	1	82	6	5	117
Booster	100	0	0	0	0	3	0	0	103

Table X2: Detailed sample description

	Public Health Facility	Community Health Worker	Private Not-for-Profit Facility	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Outlets
South East	115	2	0	20	7	98	2	0	244
Census	8	2	0	20	7	98	2	0	137
Booster	107	0	0	0	0	0	0	0	107
South South	86	0	0	17	8	195	2	0	308
Census	14	0	0	17	8	194	2	0	235
Booster	72	0	0	0	0	1	0	0	73
South West	169	0	0	43	28	284	56	1	581
Census	18	0	0	43	28	283	56	1	429
Booster	151	0	0	0	0	1	0	0	152
Number of outlets eligible but not interviewed (interview non-participation)	1	0	0	3	3	13	2	0	22
North Central	0	0	0	0	0	0	0	0	0
Census	0	0	0	0	0	0	0	0	0
Booster	0	0	0	0	0	0	0	0	0
North East	0	0	0	0	0	0	0	0	0
Census	0	0	0	0	0	0	0	0	0
Booster	0	0	0	0	0	0	0	0	0
North West	0	0	0	0	0	0	0	0	0
Census	0	0	0	0	0	0	0	0	0
Booster	0	0	0	0	0	0	0	0	0
South East	0	0	0	0	0	1	0	0	1
Census	0	0	0	0	0	1	0	0	1
Booster	0	0	0	0	0	0	0	0	0
South South	0	0	0	1	1	1	0	0	3
Census	0	0	0	1	1	1	0	0	3
Booster	0	0	0	0	0	0	0	0	0
South West	1	0	0	2	2	11	2	0	18
Census	0	0	0	2	2	11	2	0	17
Booster	1	0	0	0	0	0	0	0	1

Table X2: Detailed sample description

	Public Health Facility	Community Health Worker	Private Not-for-Profit Facility	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Outlets
Number of interviewed outlets with at least one antimalarial in stock on the day of the survey (Figure 1, Box D1)	659	5	4	76	50	837	71	12	1714
North Central	99	0	4	8	3	84	4	0	202
Census	9	0	4	7	3	84	4	0	111
Booster	90	0	0	1	0	0	0	0	91
North East	105	2	0	6	3	95	6	8	225
Census	19	2	0	6	3	95	6	8	139
Booster	86	0	0	0	0	0	0	0	86
North West	108	2	0	2	1	85	5	3	206
Census	18	2	0	2	1	82	5	3	113
Booster	90	0	0	0	0	3	0	0	93
South East	108	1	0	12	7	98	2	0	228
Census	8	1	0	12	7	98	2	0	128
Booster	100	0	0	0	0	0	0	0	100
South South	83	0	0	13	8	194	1	0	299
Census	14	0	0	13	8	193	1	0	229
Booster	69	0	0	0	0	1	0	0	70
South West	156	0	0	35	28	281	53	1	554
Census	14	0	0	35	28	280	53	1	411
Booster	142	0	0	0	0	1	0	0	143
Number of interviewed outlets with at least one antimalarial in stock on the day of the survey or at least one antimalarial reportedly in stock in the previous 3 months (Figure 1 sum of Box 1 and Box 2)	709	7	4	79	50	845	76	14	1776
North Central	106	1	4	8	3	87	4	0	213
Census	10	1	4	7	3	87	4	0	116
Booster	96	0	0	1	0	0	0	0	97
North East	115	2	0	6	3	96	6	8	232
Census	20	2	0	6	3	96	6	8	137
Booster	95	0	0	0	0	0	0	0	95
North West	118	2	0	2	1	85	6	5	218
Census	18	2	0	2	1	82	6	5	115
Booster	100	0	0	0	0	3	0	0	103

Table X2: Detailed sample description

	Public Health Facility	Community Health Worker	Private Not-for-Profit Facility	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Outlets
South East	115	2	0	13	7	98	2	0	237
Census	8	2	0	13	7	98	2	0	130
Booster	107	0	0	0	0	0	0	0	107
South South	86	0	0	14	8	195	2	0	304
Census	14	0	0	14	8	194	2	0	231
Booster	72	0	0	0	0	1	0	0	73
South West	169	0	0	36	28	284	56	1	572
Census	18	0	0	36	28	283	56	1	420
Booster	151	0	0	0	0	1	0	0	152
Number of interviewed outlets that provide malaria blood testing, but do not stock antimalarial medicines (Figure 1 Box D3)	0	0	0	20	0	0	0	0	20
North Central	0	0	0	1	0	0	0	0	1
Census	0	0	0	1	0	0	0	0	1
Booster	0	0	0	0	0	0	0	0	0
North East	0	0	0	1	0	0	0	0	1
Census	0	0	0	1	0	0	0	0	1
Booster	0	0	0	0	0	0	0	0	0
North West	0	0	0	1	0	0	0	0	1
Census	0	0	0	1	0	0	0	0	1
Booster	0	0	0	0	0	0	0	0	0
South East	0	0	0	7	0	0	0	0	7
Census	0	0	0	7	0	0	0	0	7
Booster	0	0	0	0	0	0	0	0	0
South South	0	0	0	3	0	0	0	0	3
Census	0	0	0	3	0	0	0	0	3
Booster	0	0	0	0	0	0	0	0	0
South West	0	0	0	7	0	0	0	0	7
Census	0	0	0	7	0	0	0	0	7
Booster	0	0	0	0	0	0	0	0	0

Table X2: Detailed sample description

	Public Health Facility	Community Health Worker	Private Not-for-Profit Facility	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Outlets
Proportion of eligible and interviewed antimalarial-stocking outlets with at least one provider with a health-related qualification*	97.0	80.0	100.0	94.7	94.0	45.0	18.3	-	67.7
North Central	99.0	0.0	100.0	100.0	100.0	34.5	0.0	-	70.3
Census	100.0	0.0	100.0	100.0	100.0	34.5	0.0	-	46.8
Booster	98.9	-	-	-	-	-	-	-	98.9
North East	92.4	50.0	-	100.0	100.0	49.5	0.0	0.0	69.7
Census	89.5	50.0	-	100.0	100.0	49.5	0.0	0.0	54.8
Booster	93.0	-	-	-	-	-	-	-	93.0
North West	93.5	100.0	-	100.0	100.0	64.7	40.0	0.0	79.0
Census	94.4	100.0	-	100.0	100.0	64.6	40.0	0.0	67.9
Booster	93.3	-	-	-	-	-	-	-	92.5
South East	98.1	100.0	-	100.0	100.0	39.8	100.0	-	73.2
Census	75.0	100.0	-	100.0	100.0	39.8	100.0	-	52.3
Booster	100.0	-	-	-	-	-	-	-	100.0
South South	100.0	-	-	69.2	100.0	59.3	0.0	-	71.9
Census	100.0	-	-	69.2	100.0	59.1	0.0	-	63.3
Booster	100.0	-	-	-	-	-	-	-	100.0
South West	98.7	-	-	100.0	89.3	32.7	17.0	0.0	57.1
Census	100.0	-	-	100.0	89.3	32.9	17.0	0.0	42.8
Booster	98.6	-	-	0.0	0.0	0.0	0.0	0.0	97.9

* Health-related qualifications include: 1) medicine: medical doctor, clinical officer; 2) pharmacy: pharmacists, pharmacy technician, pharmacy assistant; 3) nursing: nurse, nursing officer, medical assistant, nursing assistant, nursing aid; 4) midwife; and 5) community health worker.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Annex 6: Questionnaire

ACTwatch Outlet Survey

NIGERIA 2013

Section I: Census Information

Interviewer completes this section for all outlets.

Outlet ID Interviewer-State-LGA-Locality-Outlet code [][]-[][]-[][][][]-[][][][][]-[][][][]	
C1. Today's date(dd/mm/yyyy)	[][][]-[][][]-[2][0][1][3]
C2. Interviewer's name []	C2a. Interviewer's code [][]
C3. State Name []	C3a. State Code [][][]
C4. Local Government Area (LGA) []	C4a. LGA Code [][][]
C5. Locality Name []	C5a. Locality Code [][][][]
C6. Name of outlet <i>If no name, record owner's name</i> []	C6a. Outlet code [][][]
C7. Type of Outlet 01= University Hospital/Federal Medical Center 09=NGO/Mission diagnostics lab (<i>lab only</i>) 02= General Hospital/Specialist 10=Super/ Mini-Market/ Provisions Store 03=Primary Health Care Center/Comprehensive 11=Kiosk/Table Health Center 12= Community Health Extension Workers 04 = NGO/ mission hospital 13 =Role Model Mother 05 = Private hospital/Private Clinic 14= Village Health Worker 06=Pharmacy 15=Hawker 07=Proprietary Patent Medicine Vendor 96 = Other (<i>specify</i>)[] 08=Private diagnostics lab (<i>lab only</i>)	
C8. Is this area part of the booster sample?	1 = Yes 0=No []

Hello, my name is _____, I work for Society for Family Health on behalf of Population Services International. We are conducting a study on the availability of antimalarial medicines and diagnostic testing services. The results will be used to improve the availability of appropriate antimalarial treatment in Nigeria. I would like to ask you a few questions to see if you could be part of the survey.

Screening questions

S1. Do you have any medicines in stock today? 1 = Yes go to S3 0 = No	[]
S2. Are there any medicines that are out of stock today, but that you stocked in the past 3 months? 1 = Yes go to S4 0 = No go to S5 8 = Don't know go to S5	[]
S3. Do you have any antimalarial medicines in stock today? 1 = Yes provide information sheet & gain consent. Record start time in C9. Proceed to Section 2: Antimalarial Audit. 0 = No go to S4	[]
S4. Are there any antimalarial medicines that are out of stock today, but that you stocked in the past 3 months? 1 = Yes provide information sheet & gain consent. Record start time in C9. Proceed to A13. 0 = No verify with prompt card. Go to S5 8 = Don't know verify with prompt card. Go to S5	[]
S5. Are you offering any diagnostic services or selling any diagnostic tests here today? 1 = Yes go to S6 0 = No verify with prompt card. Record details in C9 then complete Sec X: Ending interview	[]
S6. Are any of these services or tests for suspected malaria? 1 = Yes provide information sheet & gain consent. Record start time in C9. Proceed to Section 3: Diagnostic Audit 0 = No verify with prompt card. Record details in C9 then complete Sec X: Ending interview	[]

Before proceeding to the full interview ensure you have given the respondent a study information sheet, explained the study and obtained informed consent.

Section II: Antimalarial Audit

A0. Read to the provider:

Can you please show us the full range of antimalarials that you currently have in stock? Do you currently have any of the following?

Prompt entire list using antimalarial prompt card; No response to be recorded.

- **Artemether lumefantrine**, such as *Lonart, Lonart-DS, Amatem, Artemef, Lumartem, Coartem, Lokmal*
- **Artesunate amodiaquine**, such as *Larimal, Comosunate, Dart, Diasuate, Arsuamoon, Malmed*
- Other **artemisinin combination therapies**, such as *P-Alaxin, Artequin, Waip, ACT, Co-Arinate, Duo-Cotecxin*
- **Artemether monotherapies**, such as *Gvither, Sanarteme, Artem*
- **Artesunate monotherapies**, such as *Artesunat, G-Sunate, Askasunate, Malmeter, Eurosunate, Arthlon*
- **Chloroquine**, such as *New 2.2.1, Evans, Palquine, Dana Quimal, Capquin, Vinaquine*
- **SP**, such as *Fansidar, Amalar, Laridox, Maldox, Malareich, Metakelfin, Antimal, Vitadar*
- **Quinine**, such as *Malagold, Alpaquine, Embassy Quine*
- **Amodiaquine**, such as *Amobin, Malaratab, Loquin, Alphaquine*
- **Mefloquine**, such as *Mephaquin, Meflotas, Lariam*
- **Syrups or suspensions**, such as *Vinaquine, Triple Action Maxiquine, Emzor, Lonart, Maldox, Alaxin, Vamirex Triple ACT, Camoquine, Halfan, Palquine, Peace, Labquin, Shekquine, Lokmal*
- **Injectables**, such as *Labquin, Sivoquine, E-mal, Tavquine, Sanarteme, Clotin, Paluther*
- **Granules or powders**, such as *Camosunate, Artesmodia, Artequin, Paediatric, Tamether*

If the outlet has no antimalarials in stock cross-check screening results then proceed to question A13.

Proceed to the antimalarial audit. Different antimalarial audit sheets will be used to record the antimalarial information based on the dosage form of the medicine.

Separate the antimalarials into two piles:

- **The first pile should contain all the antimalarials in the form of tablets, suppositories, or granules. Use the Tablets, Suppositories & Granules Drug Audit Sheet to record these.**
- **The second pile should contain all the antimalarials in any form other than tablets, suppositories or granules. Use the Non-Tablet Drug Audit Sheet to record these.**

If additional audit sheets are used, add these sheets after the ones provided and staple the questionnaire again. All pages should be in order before you move onto the next outlet.

Number each drug by assigning a Product Number.

Number each audit sheet used in the spaces provided at the bottom of the page.

ADDITIONAL NOTES FOR HEALTH FACILITIES

In health facilities complete the Dispensary / Clinic Code as well as the Product Number for each drug audited. Dispensary / Clinic codes are listed below.

Dispensary / Clinic Codes	
A	Outpatient department / dispensary (if used by all patients)
B	Adult outpatient department / adult dispensary / adult clinic
C	Child outpatient department / child dispensary / child clinic
D	Antenatal / maternity clinic
E	ART / HIV/AIDS clinic
G	Private dispensing unit within a public hospital
L	Laboratory (for RDT audit)
Z	Comprehensive Clinic/ Other (note type in audit comments)

TABLET, SUPPOSITORY & GRANULE DRUG AUDIT SHEET (TSG) OUTLET ID: [][]-[][]-[][]-[][][][]-[][][][]

Clinic code [][]	Product number [][] [][]	1. Generic name [][]		2. Strength [][][][]·[][]mg	2a. Is this base strength? [] 1 = Yes [] 0 = No [] 8 = Don't know [] <i>If no, specify salt:</i> [][][][]	3. Dosage form 1 = Tablet 2 = Suppository 3 = Granule []	4. Brand name	5. Manufacturer	6. Country of manufacture [][][]	
		[][]		[][][][]·[][]mg						
		[][]		[][][][]·[][]mg						
7. Package size There are a total of [][][][][] tablets/ suppositories/ granule packs in each: 1 = Package 2 = Pot/tin []		8. Is product a fixed-dose combination (FDC) 1 = Yes 0 = No 8 = Don't know []	9. Does product have the AMFm logo? 1 = Yes 0 = No []	10. Amount sold/distributed in the last 7 days to individual consumers (Record # of packages / tins described in Q7 OR record the total # of tablets / suppositories / granule packs sold) This outlet sold [][][][][] packages/ tins in the last 7 days OR This outlet sold [][][][][] tablets/ suppositories or granule packs in the last 7 days <i>Not applicable = 9995; Refused = 9997; Don't know = 9998</i>		10a. Stocked out at any point in the past 2 weeks? 1 = Yes 0 = No 8 = Don't know []	10b. Stocked out at any point in the past 3 months? 1 = Yes 0 = No 8 = Don't know []	11. Retail selling price [][][][][] tablets, suppositories or granule packs cost an individual customer [][][][][][]-N- <i>Free = 00000; Refused = 99997; Don't know = 99998</i>	12. Wholesale purchase price For the outlet's most recent wholesale purchase [][][][][] tablets, suppositories or granule packs cost [][][][][][]-N-	13. Comments

Clinic code [][]	Product number [][] [][]	1. Generic name [][]		2. Strength [][][][]·[][]mg	2a. Is this base strength? [] 1 = Yes [] 0 = No [] 8 = Don't know [] <i>If no, specify salt:</i> [][][][]	3. Dosage form 1 = Tablet 2 = Suppository 3 = Granule []	4. Brand name	5. Manufacturer	6. Country of manufacture [][][]	
		[][]		[][][][]·[][]mg						
		[][]		[][][][]·[][]mg						
7. Package size There are a total of [][][][][] tablets / suppositories / granule packs in each: 1 = Package 2 = Pot/tin []		8. Is product a fixed-dose combination (FDC) 1 = Yes 0 = No 8 = Don't know []	9. Does product have the AMFm logo? 1 = Yes 0 = No []	10. Amount sold/distributed in the last 7 days to individual consumers (Record # of packages / tins described in Q7 OR record the total # of tablets / suppositories / granule packs sold) This outlet sold [][][][][] packages/ tins in the last 7 days OR This outlet sold [][][][][] tablets/ suppositories or granule packs in the last 7 days <i>Not applicable = 9995; Refused = 9997; Don't know = 9998</i>		10a. Stocked out at any point in the past 2 weeks? 1 = Yes 0 = No 8 = Don't know []	10b. Stocked out at any point in the past 3 months? 1 = Yes 0 = No 8 = Don't know []	11. Retail selling price [][][][][] tablets, suppositories or granule packs cost an individual customer [][][][][][]-N- <i>Free = 00000; Refused = 99997; Don't know = 99998</i>	12. Wholesale purchase price For the outlet's most recent wholesale purchase [][][][][] tablets, suppositories or granule packs cost [][][][][][]-N-	13. Comments

TABLET, SUPPOSITORY & GRANULE DRUG AUDIT SHEET (TSG) OUTLET ID: [][]-[][][]-[][][][]-[][][][][]-[][][][][]

Clinic code [][]	Product number [][]	1. Generic name [][][][]		2. Strength [][][][].[][]mg	2a. Is this base strength? [] 1 = Yes 0 = No 8 = Don't know If no, specify salt: [][][][]	3. Dosage form 1 = Tablet 2 = Suppository 3 = Granule	4. Brand name [][][][][][]	5. Manufacturer [][][][][][][]	6. Country of manufacture [][][]
		[][][][]		[][][][].[][]mg					
		[][][][]		[][][][].[][]mg					
7. Package size There are a total of [][][][][] tablets/ suppositories/ granule packs in each: 1 = Package 2 = Pot/tin []		8. Is product a fixed-dose combination (FDC) 1 = Yes 0 = No 8 = Don't know []	9. Does product have the AMFm logo? 1 = Yes 0 = No []	10. Amount sold/distributed in the last 7 days to individual consumers (Record # of packages / tins described in Q7 OR record the total # of tablets / suppositories / granule packs sold) This outlet sold [][][][][] packages/ tins in the last 7 days OR This outlet sold [][][][][] tablets/ suppositories or granule packs in the last 7 days <i>Not applicable = 9995; Refused = 9997; Don't know = 9998</i>	10a. Stocked out at any point in the past 2 weeks? 1 = Yes 0 = No 8 = Don't know []	10b. Stocked out at any point in the past 3 months? 1 = Yes 0 = No 8 = Don't know []	11. Retail selling price [][][][][] tablets, suppositories or granule packs cost an individual customer [][][][][][]-N- <i>Free = 00000; Refused = 99997; Don't know = 99998</i>	12. Wholesale purchase price For the outlet's most recent wholesale purchase [][][][][] tablets, suppositories or granule packs cost [][][][][][]-N-	13. Comments

Clinic code [][]	Product number [][]	1. Generic name [][][][]		2. Strength [][][][].[][]mg	2a. Is this base strength? [] 1 = Yes 0 = No 8 = Don't know If no, specify salt: [][][][]	3. Dosage form 1 = Tablet 2 = Suppository 3 = Granule	4. Brand name [][][][][][]	5. Manufacturer [][][][][][][]	6. Country of manufacture [][][]
		[][][][]		[][][][].[][]mg					
		[][][][]		[][][][].[][]mg					
7. Package size There are a total of [][][][][] tablets/ suppositories/ granule packs in each: 1 = Package 2 = Pot/tin []		8. Is product a fixed-dose combination (FDC) 1 = Yes 0 = No 8 = Don't know []	9. Does product have the AMFm logo? 1 = Yes 0 = No []	10. Amount sold/distributed in the last 7 days to individual consumers (Record # of packages / tins described in Q7 OR record the total # of tablets / suppositories / granule packs sold) This outlet sold [][][][][] packages/ tins in the last 7 days OR This outlet sold [][][][][] tablets/ suppositories or granule packs in the last 7 days <i>Not applicable = 9995; Refused = 9997; Don't know = 9998</i>	10a. Stocked out at any point in the past 2 weeks? 1 = Yes 0 = No 8 = Don't know []	10b. Stocked out at any point in the past 3 months? 1 = Yes 0 = No 8 = Don't know []	11. Retail selling price [][][][][] tablets, suppositories or granule packs cost an individual customer [][][][][][]-N- <i>Free = 00000; Refused = 99997; Don't know = 99998</i>	12. Wholesale purchase price For the outlet's most recent wholesale purchase [][][][][] tablets, suppositories or granule packs cost [][][][][][]-N-	13. Comments

NON-TABLET DRUG AUDIT SHEET (NT): SYRUP, SUSPENSION, INJECTIONS & OTHERS

OUTLET ID: [][][]-[][][][]-[][][][][]-[][][][][][]-[][][][][][][]

Clinic code [][] [][] Product number [][] [][]	1. Generic name	2. Strength	2a. Is this base strength?		3. Dosage form	4. Brand name	5. Manufacturer	
	[][]	[][][][][]·[]mg/[][][][]·[]mL	[] 1 = Yes 0 = No 8 = Don't know		1 = Syrup 2 = Suspension 3 = Liquid inj. 4 = Powder inj. 5 = Drops 6 = Other (<i>specify</i>)			
	[][]	[][][][][]·[]mg/[][][][]·[]mL	[]					
	[][]	[][][][][]·[]mg/[][][][]·[]mL	[] <i>If no, specify salt:</i> [][][][]					
		(Note: no mL recorded for powder injection)						
6. Country of manufacture	7. Package size	9. Does this product have the AMFm logo?	10. Amount sold/ distributed in the <u>last 7 days</u> to individual consumers	10a. Stocked out at any point in the <u>past 2 weeks</u> ?	10b. Stocked out at any point in the <u>past 3 months</u> ?	11. Retail selling price	12. Wholesale purchase price	13. Comments
	There are a total of [][][][][]·[] mL (or mg for powder injections) in each: 1 = Bottle 2 = Ampoule/vial	1 = Yes 0 = No	This outlet sold [][][][] bottles, ampoules or vials in the <u>last 7 days</u>	1 = Yes 0 = No 8 = Don't know	1 = Yes 0 = No 8 = Don't know	[][][][] bottles ampoules or vials cost an individual customer	[][][][][] bottles, ampoules or vials cost	
[][][][]	[]	[]	<i>Refused = 9997; Don't know = 9998</i>	[]	[]	[][][][][][][]-N-	[][][][][][][]-N-	
						<i>Free = 00000; Refused = 99997; Don't know = 99998</i>		

Clinic code [][] [][] Product number [][] [][]	1. Generic name	2. Strength	2a. Is this base strength?		3. Dosage form	4. Brand name	5. Manufacturer	
	[][]	[][][][][]·[]mg/[][][][]·[]mL	[] 1 = Yes 0 = No 8 = Don't know		1 = Syrup 2 = Suspension 3 = Liquid inj. 4 = Powder inj. 5 = Drops 6 = Other (<i>specify</i>)			
	[][]	[][][][][]·[]mg/[][][][]·[]mL	[]					
	[][]	[][][][][]·[]mg/[][][][]·[]mL	[] <i>If no, specify salt:</i> [][][][]					
		(Note: no mL recorded for powder injection)						
6. Country of manufacture	7. Package size	9. Does this product have the AMFm logo?	10. Amount sold/ distributed in the <u>last 7 days</u> to individual consumers	10a. Stocked out at any point in the <u>past 2 weeks</u> ?	10b. Stocked out at any point in the <u>past 3 months</u> ?	11. Retail selling price	12. Wholesale purchase price	13. Comments
	There are a total of [][][][][]·[] mL (or mg for powder injections) in each: 1 = Bottle 2 = Ampoule/vial	1 = Yes 0 = No	This outlet sold [][][][] bottles, ampoules or vials in the <u>last 7 days</u>	1 = Yes 0 = No 8 = Don't know	1 = Yes 0 = No 8 = Don't know	[][][][] bottles ampoules or vials cost an individual customer	[][][][][] bottles, ampoules or vials cost	
[][][][]	[]	[]	<i>Refused = 9997; Don't know = 9998</i>	[]	[]	[][][][][][][]-N-	[][][][][][][]-N-	
						<i>Free = 00000; Refused = 99997; Don't know = 99998</i>		

NON-TABLET DRUG AUDIT SHEET (NT): SYRUP, SUSPENSION, INJECTIONS & OTHERS

OUTLET ID: [][][]-[][][]-[][][][]-[][][][][]-[][][][][]

Clinic code [][] [][] Product number [][] [][]	1. Generic name [][]	2. Strength [][][][]·[][]mg/[][][][]·[][]mL		2a. Is this base strength? [] 1 = Yes 0 = No 8 = Don't know If no, specify salt: [][][][]	3. Dosage form 1 = Syrup 2 = Suspension 3 = Liquid inj. 4 = Powder inj. 5 = Drops 6 = Other (specify) [][]	4. Brand name	5. Manufacturer	
	[][]	[][][][]·[][]mg/[][][][]·[][]mL						
	[][]	[][][][]·[][]mg/[][][][]·[][]mL						
	[][]	(Note: no mL recorded for powder injection)						
6. Country of manufacture [][][]	7. Package size There are a total of [][][][][]·[][] mL (or mg for powder injections) in each: 1 = Bottle 2 = Ampoule/vial [][]	9. Does this product have the AMFm logo? 1 = Yes 0 = No [][]	10. Amount sold/ distributed in the <u>last 7 days</u> to individual consumers This outlet sold [][][][] bottles, ampoules or vials in the <u>last 7 days</u> <i>Refused = 9997; Don't know = 9998</i>	10a. Stocked out at any point in the past <u>2 weeks</u> ? 1 = Yes 0 = No 8 = Don't know [][]	10b. Stocked out at any point in the past <u>3 months</u> ? 1 = Yes 0 = No 8 = Don't know [][]	11. Retail selling price [][][][] bottles ampoules or vials cost an individual customer [][][][][][][]-N-	12. Wholesale purchase price For the outlet's most recent wholesale purchase: [][][][][] bottles, ampoules or vials cost [][][][][][][]-N-	13. Comments
<i>Free = 000000; Refused = 999997; Don't know = 999998</i>								

Clinic code [][] [][] Product number [][] [][]	1. Generic name [][]	2. Strength [][][][]·[][]mg/[][][][]·[][]mL		2a. Is this base strength? [] 1 = Yes 0 = No 8 = Don't know If no, specify salt: [][][][]	3. Dosage form 1 = Syrup 2 = Suspension 3 = Liquid inj. 4 = Powder inj. 5 = Drops 6 = Other (specify) [][]	4. Brand name	5. Manufacturer	
	[][]	[][][][]·[][]mg/[][][][]·[][]mL						
	[][]	[][][][]·[][]mg/[][][][]·[][]mL						
	[][]	(Note: no mL recorded for powder injection)						
6. Country of manufacture [][][]	7. Package size There are a total of [][][][][]·[][] mL (or mg for powder injections) in each: 1 = Bottle 2 = Ampoule/vial [][]	9. Does this product have the AMFm logo? 1 = Yes 0 = No [][]	10. Amount sold/ distributed in the <u>last 7 days</u> to individual consumers This outlet sold [][][][] bottles, ampoules or vials in the <u>last 7 days</u> <i>Refused = 9997; Don't know = 9998</i>	10a. Stocked out at any point in the past <u>2 weeks</u> ? 1 = Yes 0 = No 8 = Don't know [][]	10b. Stocked out at any point in the past <u>3 months</u> ? 1 = Yes 0 = No 8 = Don't know [][]	11. Retail selling price [][][][] bottles ampoules or vials cost an individual customer [][][][][][][]-N-	12. Wholesale purchase price For the outlet's most recent wholesale purchase: [][][][][] bottles, ampoules or vials cost [][][][][][][]-N-	13. Comments
<i>Free = 000000; Refused = 999997; Don't know = 999998</i>								

Antimalarial stock outs

<p>A13. Are there any antimalarial medicines that are out of stock <u>today</u>, but that you stocked in the past 2 weeks?</p> <p>1 = Yes 0 = No go to A15 8 = Don't know go to A15</p>	<p>[]</p>
<p>A14. Do you know the names of the treatments that are out of stock? Will accept generic or brand names. Record one medicine per line.</p> <p>1= Yes, <i>specify</i> 0 = No</p> <p>[] [] [] []</p>	<p>[]</p>
<p>A15. Are there any antimalarial medicines that are out of stock <u>today</u>, but that you stocked in the past 3 months?</p> <p>1 = Yes go to A16 0 = No go to Section 3: Diagnostic Audit 8 = Don't know go to Section 3: Diagnostic Audit</p>	<p>[]</p>
<p>A16. Do you know the names of the treatments that are out of stock? Will accept generic or brand names. Record one medicine per line.</p> <p>1= Yes, <i>specify</i> 0 = No</p> <p>[] [] [] []</p>	<p>[]</p>

Go to Section 3: Diagnostic Audit

Section III: Diagnostic Audit

<p>D1. Do patients / customers need to register to use this facility?</p> <p>1 = Yes 0 = No go to D4</p>	<p>[]</p>
<p>D2. How much does it cost for a child under five to register with this facility?</p> <p>Free=00000 ; Don't know=99998 ; NA=99995</p>	<p>[][][][][][]-N-</p>
<p>D3. How much does it cost for an adult to register with this facility?</p> <p>Free=00000 ; Don't know=99998 ; NA=99995</p>	<p>[][][][][][]-N-</p>
<p>D4. Is malaria microscopic testing available here today?</p> <p>1= Yes 0= No go to D8</p>	<p>[]</p>
<p>D5. How many microscopic tests of malaria did you conduct over the past 7 days?</p> <p>9998 = Don't know</p>	<p>[][][][][]</p>
<p>D6.</p> <p>What is the <u>total cost</u> for a microscopic test for an <u>adult</u>: [][][][][][]-N-</p> <p>Of this total, what is the cost for the <u>test only</u>: [][][][][][]-N-</p> <p>Of this total, what is the cost for <u>consultation and other fees</u>: [][][][][][]-N-</p> <p>Free = 00000; NA = 99995; Refused = 99997; Don't know=99998</p>	
<p>D7.</p> <p>What is the <u>total cost</u> for a microscopic test for a <u>child under five</u>: [][][][][][]-N-</p> <p>Of this total, what is the cost for the <u>test only</u>: [][][][][][]-N-</p> <p>Of this total, what is the cost for <u>consultation and other fees</u>: [][][][][][]-N-</p> <p>Free = 00000; NA = 99995; Refused = 99997; Don't know=99998</p>	
<p>D8. Rapid diagnostic tests, also called RDTs, are small, individually wrapped blood tests that are able to quickly diagnose whether a person has malaria.</p> <p>Have you <u>heard</u> of RDTs?</p> <p>1 = Yes go to D10 0 = No 8 = Don't know</p>	<p>[]</p>
<p>D9. Show RDT images in prompt card</p> <p>Say: This is a rapid diagnostic test for malaria. Have you ever seen one of these before today?</p> <p>1 = Yes go to D10 0 = No go to Section 4: Provider Module 8 = Don't know go to Section 4: Provider Module</p>	<p>[]</p>
<p>D10. Say: I'd like to ask you some questions about how reliable you think RDTs are.</p> <p>When an RDT is <u>positive</u> for malaria, how likely do you think it is that the person tested actually has malaria?</p> <p>Read list. Record only one response.</p> <p>1 = Certain they have malaria 2 = Very likely they have malaria 3 = Somewhat likely they have malaria 4 = Not very likely they have malaria 5 = Not at all likely they have malaria</p>	<p>[]</p>

RAPID DIAGNOSTIC TEST AUDIT SHEET (RDT) OUTLET ID: [][]-[][][][]-[][][][]-[][][][][]-[][][][]

Clinic code [][] Product number [][]	1. Brand name (Include the terms such as Pf, Pv, Pan if visible on the pack)	2. Manufacturer	3. Country of Manufacture [][][][]	4. Lot Number	5. Number of tests sold/ distributed /used in the last 7 days to individual consumers (Record total # of tests) This outlet sold or distributed [][][][][] tests in the last 7 days Refused = 9997 ; Don't know=9998	6a. Has this test been stocked out at any point in the past 2 weeks? 1 = Yes 0 = No 8 = Don't know [][]
Free = 00000; NA = 99995; Refused = 99997; Don't know=99998						

Clinic code [][] Product number [][]	1. Brand name (Include the terms such as Pf, Pv, Pan if visible on the pack)	2. Manufacturer	3. Country of Manufacture [][][][]	4. Lot Number	5. Number of tests sold/ distributed /used in the last 7 days to individual consumers (Record total # of tests) This outlet sold or distributed [][][][][] tests in the last 7 days Refused = 9997 ; Don't know=9998	6a. Has this test been stocked out at any point in the past 2 weeks? 1 = Yes 0 = No 8 = Don't know [][]
Free = 00000; NA = 99995; Refused = 99997; Don't know=99998						

RDT stock outs

<p>D17. Are there any malaria RDTs that are out of stock today, but that you stocked in the past 2 weeks?</p> <p>1 = Yes 0 = No go to D19 8 = Don't know go to D19</p>	<p>[]</p>
<p>D18. Do you know the brand names of the malaria RDTs that are out of stock? Record one brand per line.</p> <p>1 = Yes, <i>specify</i> 0 = No</p> <p>[]</p> <p>[]</p> <p>[]</p>	<p>[]</p>
<p>D19. Are there any malaria RDTs that are out of stock today, but that you stocked in the past 3 months?</p> <p>1 = Yes 0 = No go to D21 8 = Don't know go to D21</p>	<p>[]</p>
<p>D20. Do you know the brand names of the malaria RDTs that are out of stock? Record one brand per line.</p> <p>1 = Yes, <i>specify</i> 0 = No</p> <p>[]</p> <p>[]</p> <p>[]</p>	<p>[]</p>

Gloves and Sharps

<p>D21. Does this outlet/facility have disposable gloves available today for staff to use when seeing customers/patients?</p> <p>1 = Yes 0 = No 8 = Don't know</p>	<p>[]</p>
<p>D22. Does this outlet/facility have a sharps container, also called a sharps disposal box or safety box, available today for staff to use?</p> <p>1 = Yes 0 = No 8 = Don't know</p>	<p>[]</p>

Go to Section 4: Provider Module

Section IV: Provider Module

<p>P1. What is your job at this outlet/facility? Do not read list. Prompt "anything else" once Record 1 for all responses given Record 0 for responses not given</p> <p>I. Pharmacist <input type="checkbox"/></p> <p>II. Medical doctor <input type="checkbox"/></p> <p>III. Clinical Officer <input type="checkbox"/></p> <p>IV. Nurse / Nursing Officer <input type="checkbox"/></p> <p>V. Midwife <input type="checkbox"/></p> <p>VI. Laboratory technician / Lab assistant <input type="checkbox"/></p> <p>VII. Pharmacy technician / Pharmacy assistant <input type="checkbox"/></p> <p>VIII. Medical assistant / Nursing Assistant / Nursing Aid <input type="checkbox"/></p> <p>IX. In Charge / Acting In Charge / Manager / Director <input type="checkbox"/></p> <p>X. Administrator / Clerical worker / Records keeper / Procurement <input type="checkbox"/></p> <p>XI. Counsellor (HIV, Family Planning, TB, etc) <input type="checkbox"/></p> <p>XII. Community Medicine Distributor / Village Health Team Worker <input type="checkbox"/></p> <p>XIII. Owner <input type="checkbox"/></p> <p>XIV. Community Health Officer/Worker <input type="checkbox"/></p> <p>XV. Junior CHW <input type="checkbox"/></p> <p>XVI. Relative of the owner <input type="checkbox"/></p> <p>XVII. Shop assistant <input type="checkbox"/></p> <p>XVIII. Other: <i>specify</i>[_____] <input type="checkbox"/></p>	
<p>P2. For how many years have you worked in this outlet/facility? If less than 1 year, enter 01</p>	<input type="text"/> <input type="text"/>
<p>P3. Including yourself, the owner, and support staff, how many people work at this outlet/facility? If outlet has multiple dispensaries, record number of staff at this dispensary only 98 = Don't know</p>	<input type="text"/> <input type="text"/>
<p>P4. Has anybody working in this outlet/facility completed secondary school - that is completed form 6? 1 = Yes go to P6 0 = No 8 = Don't know</p>	<input type="checkbox"/>
<p>P5. Has anybody working in this outlet/facility completed primary school? 1 = Yes 0 = No 8 = Don't know</p>	<input type="checkbox"/>
<p>P6. Does anyone working in this outlet/facility have a health related qualification? 1 = Yes 0 = No go to P8 8 = Don't know go to P8</p>	<input type="checkbox"/>

<p>P7. How many people working in this outlet/facility including yourself and the owner have the following types of health qualifications? Read list. Enter '00' if answer is None. Crosscheck total with total number of staff recorded in P3</p> <p>I. Pharmacist <input type="text"/> <input type="text"/></p> <p>II. Dispenser <input type="text"/> <input type="text"/></p> <p>III. Medical doctor <input type="text"/> <input type="text"/></p> <p>IV. Clinical officer <input type="text"/> <input type="text"/></p> <p>V. Nurse / Nursing officer <input type="text"/> <input type="text"/></p> <p>VI. Midwife <input type="text"/> <input type="text"/></p> <p>VII. Laboratory technician / Lab assistant <input type="text"/> <input type="text"/></p> <p>VIII. Community Health Worker <input type="text"/> <input type="text"/></p> <p>IX. Junior Community Health Worker <input type="text"/> <input type="text"/></p> <p>X. Pharmacy technician / Pharmacy assistant <input type="text"/> <input type="text"/></p> <p>XI. Health assistant / Nursing assistant / Nursing aid <input type="text"/> <input type="text"/></p> <p>XII. Community Medicine Distributors / Village Health Team <input type="text"/> <input type="text"/></p> <p>XIII. Other 1: <i>specify</i> [<input type="text"/>] <input type="text"/> <input type="text"/></p> <p>XIV. Other 2: <i>specify</i> [<input type="text"/>] <input type="text"/> <input type="text"/></p> <p>XV. Other 3: <i>specify</i>[<input type="text"/>] <input type="text"/> <input type="text"/></p>	
<p>P8. In the <u>past 12 months</u>, has anybody working in this outlet/facility received training on how to handle a case of fever? Include pre-service training and stand-alone workshops. 1 = Yes 0 = No 8 = Don't know</p>	<input type="text"/>
<p>P9. In the <u>past 12 months</u>, has anybody working in this outlet/facility received training on how to handle a case of malaria? Include pre-service training and stand-alone workshops. 1 = Yes 0 = No 8 = Don't know</p>	<input type="text"/>
<p>Interviewer: Check the outlet type code (C7) on page 1. If C7 is 08 or 09 (this outlet <u>only</u> offers diagnostic services) skip to Section V: Audit Tracking Sheet.</p>	
<p>P10. Of all of the people who work here, how many <u>prescribe</u> medicines? Crosscheck total with total number of staff recorded in P3 98 = Don't know</p>	<input type="text"/>
<p>P11. Of all of the people who work here, how many <u>dispense</u> medicines? Crosscheck total with total number of staff recorded in P3 98 = Don't know</p>	<input type="text"/>
<p>P12. How do you typically decide which antimalarials to stock? Read list. Record 1 for all responses given Record 0 for responses not given</p> <p>I. Stock most profitable antimalarials <input type="text"/></p> <p>II. Stock antimalarials recommended by the government <input type="text"/></p> <p>III. Stock the lowest priced antimalarials <input type="text"/></p> <p>IV. Stock according to customer demand <input type="text"/></p> <p>V. Stock based on brand reputation <input type="text"/></p> <p>VI. Stock antimalarials that are prescribed most often by doctors <input type="text"/></p> <p>VII. Stock the most effective antimalarials <input type="text"/></p> <p>VIII. Other:<i>specify</i> [<input type="text"/>] <input type="text"/></p> <p>IX. Don't know <input type="text"/></p>	

Interviewer: For the following four questions record the antimalarial brand name or generic name, and dosage form, in the spaces provided.
Ask the provider to show you the medicine if it is in stock to verify the name and dosage form.

P13. In your opinion, for treating uncomplicated malaria in adults, what is the most effective antimalarial medicine?

Generic or brand name [_____] Don't know = 98	Dosage form 01 = Tablet 04 = Syrup 95 = No preference 02 = Suppository 05 = Suspension 96 = Other (<i>specify</i>) 03 = Granule 06 = Liquid inj. 98 = Don't know 07 = Powder inj.
	[] [] If Other, specify [_____]

P14. In your opinion, for treating uncomplicated malaria in children under five, what is the most effective antimalarial medicine?

Generic or brand name [_____] Don't know = 98	Dosage form 01 = Tablet 04 = Syrup 95 = No preference 02 = Suppository 05 = Suspension 96 = Other (<i>specify</i>) 03 = Granule 06 = Liquid inj. 98 = Don't know 07 = Powder inj.
	[] [] If Other, specify [_____]

P15. What antimalarial medicine for treating uncomplicated malaria in adults do you most often recommend to customers?

Generic or brand name [_____] Don't know = 98	Dosage form 01 = Tablet 04 = Syrup 95 = No preference 02 = Suppository 05 = Suspension 96 = Other (<i>specify</i>) 03 = Granule 06 = Liquid inj. 98 = Don't know 07 = Powder inj.
	[] [] If Other, specify [_____]

P16. What antimalarial medicine for treating uncomplicated malaria in children under five do you most often recommend to customers?

Generic or brand name [_____] Don't know = 98	Dosage form 01 = Tablet 04 = Syrup 95 = No preference 02 = Suppository 05 = Suspension 96 = Other (<i>specify</i>) 03 = Granule 06 = Liquid inj. 98 = Don't know 07 = Powder inj.
	[] [] If Other, specify [_____]

P17. Please name the first line medicine recommended by the government to treat uncomplicated malaria fever.

Do not read list. Only one response allowed.

- 01 = ArtemetherLumefantrine (Lonart, Artefan, Lumartem, Coartem)..... **go to P18**
- 02 = ACT..... **go to P18**
- 03 = ACTm..... **go to P18**
- 04 =Artesunate Amodiaquine (Arsuamoon, Coarsucam, Winthrop)..... **go to P18**
- 05 = Dihydroartemisinin Piperaqueine
- 06 = Amodiaquine
- 07 = Artemether
- 08 = Artemisinin
- 09 = Artesunate
- 10 = Chloroquine
- 11 = Quinine
- 12 = Sulfadoxine Pyrimethamine (Fansidar, SP)
- 13 = Halofantrine
- 14 = Mefloquine
- 96 = Other **specify:** [_____]
- 98 = Don't know

go to P20

[] []

P18. Please explain the government recommended treatment regimen for this drug for an adult (60kg)

Read the following 3 questions to the provider

- I. How many tablets should they take at a time?
- II. How many times per day?
- III. Over how many days?

If respondent has the medicine available use the package to complete the table below.

If the medicine is not available ask respondent to identify from prompt card.

If identification not possible, ask respondent to recall medicine details.

[] [] . [] []

[] []

[] []

NA = 95

Don't know = 98

	Generic name	Strength	Brand name	Manufacturer
[] []	_____	[] [] [] . [] mg		
[] []	_____	[] [] [] . [] mg		
[] []	_____	[] [] [] . [] mg		
	[] []			

P19. Please explain the government recommended treatment regimen for this drug for a 2-year old child (10kg)**Read the following 3 questions to the provider**

- I. How many tablets should they take at a time?
- II. How many times per day?
- III. Over how many days?

If respondent has the medicine available use the package to complete the table below.

If the medicine is not available ask respondent to identify from prompt card.

If identification not possible, ask respondent to recall medicine details.

[] [] . [] []

[] []

[] []

NA = 95

Don't know = 98

	Generic name	Strength	Brand name	Manufacturer
[] []	_____	[] [] [] . [] mg		
[] []	_____	[] [] [] . [] mg		
[] []	_____	[] [] [] . [] mg		
	[] []			

P20. What are the signs and symptoms of uncomplicated malaria in an adult?

Do not read list. Prompt "anything else" once.

Record 1 for all responses given

Record 0 for responses not given

- | | | |
|--------|--|--------------------------|
| I. | Trouble breathing / Abnormal breathing | <input type="checkbox"/> |
| II. | Chills / coldness / shivers | <input type="checkbox"/> |
| III. | Convulsions | <input type="checkbox"/> |
| IV. | Cough /catarrh | <input type="checkbox"/> |
| V. | Dark urine / blood in urine | <input type="checkbox"/> |
| VI. | Diarrhea | <input type="checkbox"/> |
| VII. | Excessive sleep / difficult to wake | <input type="checkbox"/> |
| VIII. | Fever / high temperature / hot body | <input type="checkbox"/> |
| IX. | Floppy / unable to sit up | <input type="checkbox"/> |
| X. | Headache | <input type="checkbox"/> |
| XI. | Loss of appetite / loss of weight | <input type="checkbox"/> |
| XII. | Muscle pain / body aches and pains | <input type="checkbox"/> |
| XIII. | Shock / low blood pressure | <input type="checkbox"/> |
| XIV. | Unable to drink / unable to eat/feed | <input type="checkbox"/> |
| XV. | Unconscious / coma | <input type="checkbox"/> |
| XVI. | Vomiting | <input type="checkbox"/> |
| XVII. | Weakness / inactive / feel dull | <input type="checkbox"/> |
| XVIII. | Yellow eyes / jaundice | <input type="checkbox"/> |
| XIX. | Other <i>specify</i> [_____] | <input type="checkbox"/> |
| XX. | Don't know | <input type="checkbox"/> |

P21. What are the signs and symptoms of uncomplicated malaria in a child under 5?

Do not read list. Prompt "anything else" once.

Record 1 for all responses given

Record 0 for responses not given

- | | | |
|--------|--|--------------------------|
| I. | Trouble breathing / Abnormal breathing | <input type="checkbox"/> |
| II. | Chills / coldness / shivers | <input type="checkbox"/> |
| III. | Convulsions | <input type="checkbox"/> |
| IV. | Cough /catarrh | <input type="checkbox"/> |
| V. | Dark urine / blood in urine | <input type="checkbox"/> |
| VI. | Diarrhea | <input type="checkbox"/> |
| VII. | Excessive sleep / difficult to wake | <input type="checkbox"/> |
| VIII. | Fever / high temperature / hot body | <input type="checkbox"/> |
| IX. | Floppy / unable to sit up | <input type="checkbox"/> |
| X. | Headache | <input type="checkbox"/> |
| XI. | Loss of appetite / loss of weight | <input type="checkbox"/> |
| XII. | Muscle pain / body aches and pains | <input type="checkbox"/> |
| XIII. | Shock / low blood pressure | <input type="checkbox"/> |
| XIV. | Unable to drink / unable to eat/feed | <input type="checkbox"/> |
| XV. | Unconscious / coma | <input type="checkbox"/> |
| XVI. | Vomiting | <input type="checkbox"/> |
| XVII. | Weakness / inactive / feel dull | <input type="checkbox"/> |
| XVIII. | Yellow eyes / jaundice | <input type="checkbox"/> |
| XIX. | Other <i>specify</i> [_____] | <input type="checkbox"/> |
| XX. | Don't know | <input type="checkbox"/> |

<p>P22. What are the signs and symptoms of <u>severe</u> malaria in a child under 5? Do not read list. Prompt “anything else” once. Record 1 for all responses given Record 0 for responses not given</p> <table border="0"> <tr><td>I.</td><td>Trouble breathing / Abnormal breathing</td><td><input type="checkbox"/></td></tr> <tr><td>II.</td><td>Chills / coldness / shivers</td><td><input type="checkbox"/></td></tr> <tr><td>III.</td><td>Convulsions</td><td><input type="checkbox"/></td></tr> <tr><td>IV.</td><td>Cough / catarrh</td><td><input type="checkbox"/></td></tr> <tr><td>V.</td><td>Dark urine / blood in urine</td><td><input type="checkbox"/></td></tr> <tr><td>VI.</td><td>Diarrhea</td><td><input type="checkbox"/></td></tr> <tr><td>VII.</td><td>Excessive sleep / difficult to wake</td><td><input type="checkbox"/></td></tr> <tr><td>VIII.</td><td>Fever / high temperature / hot body</td><td><input type="checkbox"/></td></tr> <tr><td>IX.</td><td>Floppy / unable to sit up</td><td><input type="checkbox"/></td></tr> <tr><td>X.</td><td>Headache</td><td><input type="checkbox"/></td></tr> <tr><td>XI.</td><td>Loss of appetite / loss of weight</td><td><input type="checkbox"/></td></tr> <tr><td>XII.</td><td>Muscle pain / body aches and pains</td><td><input type="checkbox"/></td></tr> <tr><td>XIII.</td><td>Shock / low blood pressure</td><td><input type="checkbox"/></td></tr> <tr><td>XIV.</td><td>Unable to drink / unable to eat/feed</td><td><input type="checkbox"/></td></tr> <tr><td>XV.</td><td>Unconscious / coma</td><td><input type="checkbox"/></td></tr> <tr><td>XVI.</td><td>Vomiting</td><td><input type="checkbox"/></td></tr> <tr><td>XVII.</td><td>Weakness / inactive / feel dull</td><td><input type="checkbox"/></td></tr> <tr><td>XVIII.</td><td>Yellow eyes / jaundice</td><td><input type="checkbox"/></td></tr> <tr><td>XIX.</td><td>Other <i>specify</i> [_____]</td><td><input type="checkbox"/></td></tr> <tr><td>XX.</td><td>Don't know</td><td><input type="checkbox"/></td></tr> </table>	I.	Trouble breathing / Abnormal breathing	<input type="checkbox"/>	II.	Chills / coldness / shivers	<input type="checkbox"/>	III.	Convulsions	<input type="checkbox"/>	IV.	Cough / catarrh	<input type="checkbox"/>	V.	Dark urine / blood in urine	<input type="checkbox"/>	VI.	Diarrhea	<input type="checkbox"/>	VII.	Excessive sleep / difficult to wake	<input type="checkbox"/>	VIII.	Fever / high temperature / hot body	<input type="checkbox"/>	IX.	Floppy / unable to sit up	<input type="checkbox"/>	X.	Headache	<input type="checkbox"/>	XI.	Loss of appetite / loss of weight	<input type="checkbox"/>	XII.	Muscle pain / body aches and pains	<input type="checkbox"/>	XIII.	Shock / low blood pressure	<input type="checkbox"/>	XIV.	Unable to drink / unable to eat/feed	<input type="checkbox"/>	XV.	Unconscious / coma	<input type="checkbox"/>	XVI.	Vomiting	<input type="checkbox"/>	XVII.	Weakness / inactive / feel dull	<input type="checkbox"/>	XVIII.	Yellow eyes / jaundice	<input type="checkbox"/>	XIX.	Other <i>specify</i> [_____]	<input type="checkbox"/>	XX.	Don't know	<input type="checkbox"/>	
I.	Trouble breathing / Abnormal breathing	<input type="checkbox"/>																																																											
II.	Chills / coldness / shivers	<input type="checkbox"/>																																																											
III.	Convulsions	<input type="checkbox"/>																																																											
IV.	Cough / catarrh	<input type="checkbox"/>																																																											
V.	Dark urine / blood in urine	<input type="checkbox"/>																																																											
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XII.	Muscle pain / body aches and pains	<input type="checkbox"/>																																																											
XIII.	Shock / low blood pressure	<input type="checkbox"/>																																																											
XIV.	Unable to drink / unable to eat/feed	<input type="checkbox"/>																																																											
XV.	Unconscious / coma	<input type="checkbox"/>																																																											
XVI.	Vomiting	<input type="checkbox"/>																																																											
XVII.	Weakness / inactive / feel dull	<input type="checkbox"/>																																																											
XVIII.	Yellow eyes / jaundice	<input type="checkbox"/>																																																											
XIX.	Other <i>specify</i> [_____]	<input type="checkbox"/>																																																											
XX.	Don't know	<input type="checkbox"/>																																																											
<p>P23. What would you do if a 2-year old child was brought to this outlet with <u>severe</u> malaria? Do not read list. Only one response allowed.</p> <p>01 = Seek advice/help from someone in this facility 02 = Treat the child in this facility 03 = Refer to a health facility (clinic, hospital) with or without treating here 04 = Refer to a non health facility outlet (not a clinic or hospital) with or without treating here 05 = Send them away/home without medicine 06 = Send them away/home with medicine 96 = Other <i>specify</i>: [_____] 98 = Don't know</p>	<p style="text-align: center;"><input type="checkbox"/> <input type="checkbox"/></p>																																																												

Complete the audit sheet tracker on the next page then follow the instructions for ending the interview.

Section V: Audit Tracking Sheet

T1. Total number of Tablet, Suppository & Granule Audit Sheets	[][]
T1a. Total number of Tablet, Suppository & Granule Products audited	[][]
T2. Total number of Non-Tablet Audit Sheets	[][]
T2a. Total number of Non-Tablet Products audited	[][]
T3. Total number of RDT Audit Sheets	[][]
T3a. Total number of RDT Products audited	[][]

THANK THE PROVIDER FOR THEIR PARTICIPATION

Return to C9 and record the final status of the interview and time completed.

Complete Section IX: Other Medicines;

Then complete Section X: Ending the Interview.

Annex 7: Antimalarial Reference

Table X3: Number of antimalarials audited

	Public Health Facility	Community Health Worker	Private Not-for-Profit Facility	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Outlets
North Central	633	0	11	38	110	776	24	0	1592
Census	58	0	11	37	110	776	24	0	1016
Booster	575	0	0	1	0	0	0	0	576
North East	552	6	0	24	42	815	15	13	1467
Census	79	6	0	24	42	815	15	13	994
Booster	473	0	0	0	0	0	0	0	473
North West	504	9	0	13	27	763	10	3	1329
Census	85	9	0	13	27	734	10	3	881
Booster	419	0	0	0	0	29	0	0	448
South East	616	4	0	63	181	1060	4	0	1928
Census	66	4	0	63	181	1060	4	0	1378
Booster	550	0	0	0	0	0	0	0	550
South South	448	0	0	113	192	2428	17	0	3198
Census	72	0	0	113	192	2414	17	0	2808
Booster	376	0	0	0	0	14	0	0	390
South West	933	0	0	186	792	2600	443	1	4955
Census	77	0	0	186	792	2587	443	1	4086
Booster	856	0	0	0	0	13	0	0	869
TOTAL	3686	19	11	437	1344	8442	513	17	14469

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table X4: Quality-Assured (QAACT) and Non-Quality Assured ACTs

Quality-Assured ACT (QAACT)	
QAACTs are ACTs that comply with the Global Fund to Fight AIDS, Tuberculosis and Malaria's Quality Assurance Policy. A QAACT is any ACT that appeared on the Global Fund's indicative list of antimalarials meeting the Global Fund's quality assurance policy* prior to data collection, or that previously had C-status in an earlier Global Fund quality assurance policy and was used in a program supplying subsidized ACTs. QAACTs also include ACTs that have been granted regulatory approval by the European Medicines Agency (EMA) – specifically Eurartesim® and Pyramax®.	
Artemether Lumefantrine	Artesunate Amodiaquine
Artemef 4 months to 3 years ^#	Arsuamoon 1-6 years ^#
Artemef 3-7 years ^#	Arsuamoon 7-13 years #
Artemef 7-12 years ^#	Arsuamoon Adults ^
Artemef 12 years and above ^	Larimal Child 1-6 year ^
Artemether + Lumefantrine <3 years (20/120mg) ^#	Winthrop Infant 2-11 months (25/67.5mg) ^#
Artemether + Lumefantrine 3-8 years (20/120mg) ^#	Winthrop Toddler 1-5 years (50/135mg) ^#
Artemether + Lumefantrine 9-14 years (20/120mg) ^#	Winthrop Child 6-13 years (100/270mg) ^#
Artemether + Lumefantrine >14 years (20/120mg) ^#	Winthrop Adult +14 years (100/270mg) ^#
Coartem 20/120 5-15kg ^#	
Coartem 20/120 15-25kg ^#	
Coartem 20/120 25-35kg ^	
Coartem 20/120 35kg and above ^#	
Coartem Dispersible 5-15kg ^#	
Coartem Dispersible 15-25kg ^#	
Combisunate 20/120 5-14kg ^#	
Combisunate 20/120 15-24kg ^#	
Combisunate 20/120 25-34kg ^#	
Combisunate 20/120 35kg+ ^#	
Lumartem 5kg to <15kg (20/120mg) ^#	
Lumartem 15 to <25kg (20/120mg) ^#	
Lumartem 25 to < 35kg (20/120mg) ^#	
Lumartem 35kg and above (20/120mg) #	

Table X4: Quality-Assured (QAACT) and Non-Quality Assured ACTs**Non-Quality-Assured ACT**

ACTs that do not meet the definition of being quality-assured.

Artemether Lumefantrine Tablet

Amatem 20/120 [#]	Famter DS ^{^#}
Amatem 80/480 ^{^#}	Ferife-DS [#]
Andermal ^{^#}	Flabora Forte [#]
Arenax Plus Forte [#]	Fynale [^]
Artborah 80/480 [#]	Fynale Forte ^{^#}
Artefan 20/240 [^]	Fytama 80/480 [#]
Artelum 20/240 [#]	Gloatem [#]
Artemef 40/240 [#]	Gloatem DS [#]
Artemef 80/480 ^{^#}	Grutha Forte [#]
Artemefan 80/480 [#]	Gvither Plus 20/120 Dispersible for Infants ^{^#}
Artemether + Lumefantrine <3 years (20/120mg) ^{^#}	Gvither Plus 80/480 [#]
Artemether + Lumefantrine 3-8 years (20/120mg) ^{^#}	Hanmal Forte [#]
Artemether + Lumefantrine 9-14 years (20/120mg) ^{^#}	Hatherley 80/480 ^{^#}
Artemether + Lumefantrine >14 years (20/120mg) ^{^#}	Havax 20/120 [#]
Artemether + Lumefantrine 80/480 [#]	Havax Forte 80/480 [#]
Artemether Plus [#]	La-Tesen [#]
Artemetin Beta Plus [#]	Lokmal ^{^#}
Artemetrin 20/120 ^{^#}	Lonart Dispersible Infant ^{^#}
Arterine Forte [#]	Lonart DS ^{^#}
Artheget [#]	Lonart [#]
Arteheget-EZ [#]	Lumal DS [#]
Asmether 80/480 ACT [#]	Lumerax 80/480 [#]
Atmal-Plus 80/480 [#]	Lunsunate Forte 80/480 35kg and above [#]
Aurother [^]	Malastop Forte [#]
BG Mal-560 [#]	Malicare Baby 5-14kg [#]
Co-Dabamal [#]	Malicare Junior 25-34kg 6-12 years [#]
Co-Fan QS [#]	Metherine Forte 35kg and above [#]
Co-Fanart Forte [#]	Micpon [#]
Coatal 20/120 ACT [#]	Nartel ^{^#}
Coatal Forte 80/480 ^{^#}	Nimartem [#]
Colart 20/120 ^{^#}	Norinate QS [#]
Combisunate 80/480 [#]	Ogomal QS [#]
Crotan 20/120 [#]	Paleuxit 20/120 Plus [#]
Crotan Forte 80/480 [#]	Romartef Plus 80/480 Adults [#]
Drutemal Plus [#]	Sarmata [#]
Exu Artemether [#]	Tacen [#]

Table X4: Quality-Assured (QAACT) and Non-Quality Assured ACTs

Non-Quality-Assured ACT <i>continued</i>	
Artemether Lumefantrine Tablet <i>continued</i>	Dihydroartemisinin Piperazine Tablet
Tamether 20/240 Adult #	Artcop #
Tamether Fort 80/480 Adult ^#	Artecxin #
Tamether Powder 20/120 Child 5-14kg (<3 years) #	Arterakine ^#
Uplufa Plus #	Artexaten ^
Zeramal QS #	Codisin Plus ^#
Zymal #	D-Artepp #
	Duo-Cotecxin Adult Children over 6 Years ^#
Artemisinin Piperazine Tablet	Falcidin ^#
Artcop-DS #	Genaquine #
Artequick ^#	P-Alaxin ^#
	Partem #
Artesunate Mefloquine Tablet	Pipart ^#
Amdin 600/750 #	Viskart-P #
Artequin 300/375 ^#	Waipa ACT ^#
Artequin 600/750 ^#	
	Artesunate Amodiaquine Granule
Artesunate Sulfadoxine Pyrimethamine Tablet	Artesmodia 1-6 Years #
Amalar Plus #	Camosunate ^#
Co-Arinate FDC Adult ^#	Combisunate ^
Co-Arinate FDC Junior ^#	
Euronet Lar #	Artesunate Mefloquine Granule
	Artequin 300/375 #
Artesunate Amodiaquine Tablet	
ACT-A ^	Artesunate Amodiaquine Suspension
Adamsnate Plus Adult 14+ #	MD Artesunate Plus Child ^#
Anate Children 1-6 Year #	
Arsumoon Adult ^#	Dihydroartemisinin Piperazine Suspension
Artesmodia 1-6 Years #	Artecxin Child ^#
Camoquine Junior 7-13 Years #	Codisin #
Camosunate Pediatric Below 1 Year #	Falcidin #
Camosunate Children 1-6 Years #	Genaquine #
Camosunate Junior 7-13 Years ^#	P-Alaxin ^#
Camosunate Adult 14 Years and Above ^#	Solartep ^#
Dart Above 12 Years ^	
Efonrex #	
Ibasunate #	
Zeromal #	

Table X4: Quality-Assured (QAACT) and Non-Quality Assured ACTs**Non-Quality-Assured ACT *continued*****Artemether Lumefantrine Suspension**

Aktemaf ^{^#}	Hanmal Paediatric [#]
Amatem [#]	Hatherley ^{^#}
Arenax Plus ^{^#}	Havax [#]
Artefan [#]	La-Tesen [#]
Artemef ^{^#}	Lokmal ^{^#}
Artemelum ^{^#}	Lokmal Pediatric [#]
Artemether-Plus ^{^#}	Lomasyl [#]
Artemetrin ^{^#}	Lonart 20/120 ^{^#}
Artheget-EZ [#]	Lumal Pediatric [#]
Asmether Pediatric [#]	Malastop ^{^#}
Atmal [#]	Matem Pediatric ^{^#}
Botamil Plus Oral Suspension for Children [^]	Micipon [#]
Co-Artesiane Pediatric ^{^#}	Ogamal [#]
Co-Fanart 20/120 [#]	Paluexit Pediatric [#]
Coartesiane Pediatric [#]	Pemametre ^{^#}
Coatal Pediatric [#]	Powder Oral Suspension Curative Antimalarial [#]
Comether ^{^#}	Salumether for Children ^{^#}
Due's Artemether Lumefantrine [#]	Sarmata ^{^#}
Esefant Pediatric [#]	Tamether ^{^#}
Famter [#]	Voather Ponder Oral Suspension Pediatric ^{^#}
Gloatem 20/120 Pediatric [#]	

* <http://www.theglobalfund.org/en/procurement/quality/pharmaceutical>

[^] Product audited in the public sector

[#] Product audited in the private sector

Table X5: Nationally Registered ACTs

ACT registered with Nigeria's national drug regulatory authority and permitted for sale or distribution in country.

Artemether Lumefantrine Tablet

Amatem 20/120 [#]	Hanmal Forte [#]
Andermal ^{^#}	Havax 20/120 [#]
Arenax Plus Forte [#]	Havax Forte 80/480 [#]
Artelum 40/240 [#]	La-Tesen [#]
Artemef 40/240 [#]	Lonart Dispersible Infant ^{^#}
Artemef 80/480 ^{^#}	Lonart DS ^{^#}
Artemef 4 months to 3 years ^{^#}	Lumartem 5kg to <15kg (20/120mg) ^{^#}
Artemef 3-7 years ^{^#}	Lumartem 15 to <25kg (20/120mg) ^{^#}
Artemef 7-12 years ^{^#}	Lumartem 25 to < 35kg (20/120mg) ^{^#}
Artemef 12 years and above [^]	Lumartem 35kg and above (20/120mg) [#]
Artemether + Lumefantrine <3 years (20/120mg) ^{^#}	Lumerax 80/480 [#]
Artemether + Lumefantrine 3-8 years (20/120mg) ^{^#}	Malastop Forte [#]
Artemether + Lumefantrine 9-14 years (20/120mg) ^{^#}	Malicare Baby 5-14kg 0-3 years [#]
Artemether + Lumefantrine >14 years (20/120mg) ^{^#}	Malicare Junior 25-34kg 6-12 years [#]
Artemether Lumefantrine 80/480 [#]	Metherine Forte 35kg and above [#]
Artemether Plus [#]	Norinate QS [#]
Arterine Forte [#]	Ogamal QS [#]
Artheget [#]	Paluexit 20/120 Plus [#]
Atmal-Plus 80/480 [#]	Romartef Plu 80/480 Plus [#]
BH Mal-560 [#]	Sarmata [#]
Co-Dabamal [#]	Tamether 40/240 Adult [#]
Co-Fan QS [#]	Tamether Fort 80/480 Adult ^{^#}
Co-Fanart Forte [#]	Tamether Powder 20/120 Child 5-14kg [#]
Coartem 20/120 5-15kg ^{^#}	Uplufa Plus [#]
Coartem 20/120 15-25kg ^{^#}	Zeramal QS [#]
Coartem 20/120 25-35kg [^]	
Coartem 20/120 35kg and above ^{^#}	Artesunate Mefloquine Tablet
Coartem Dispersible 5-15kg ^{^#}	Amdin 600/750 [#]
Coartem Dispersible 15-25kg ^{^#}	Artequin 300/375 ^{^#}
Coatal 20/120 ACT [#]	Artequin 600/750 ^{^#}
Coatal-Forte 80/480 ^{^#}	
Colart 20/120 ^{^#}	Artesunate Sulfadoxine Pyrimethamine Tablet
Combisunate 20/120 5-14kg ^{^#}	Amalar Plus [#]
Combisunate 20/120 15-24kg ^{^#}	Co-Arinate FDC Adult ^{^#}
Combisunate 20/120 25-34kg ^{^#}	Co-Arinate FDC Junior ^{^#}
Combisunate 20/120 35kg+ ^{^#}	
Crotan 20/120 [#]	Dihydroartemisinin Piperaquine Tablet
Crotan Forte 80/480 [#]	Artecxin [#]
Famter DS ^{^#}	Arterakine ^{^#}
Ferife-DS [^]	Codisin Plus ^{^#}
Fynale [^]	D-Artepp [#]
Fynale Forte ^{^#}	P-Alaxin ^{^#}
Gloatem [#]	Partem [#]
Gloatem DS [#]	Viskart-P [#]
Grutha Fort [#]	Waipa ACT ^{^#}
Gvither Plus 20/120 Dispersible ^{^#}	
Gvither Plus 80/480 [#]	

Table X5: Nationally Registered ACTs

Artesunate Amodiaquine Tablet	Artemether Lumefantrine Suspension
ACT-A [#]	Aktemaf ^{^#}
Adamsnate Plus Adult 14 Years [#]	Amatem [#]
Adnate Children 1-6 Years ^{^#}	Arenax Plus ^{^#}
Artesmodia 1-6 Years [#]	Artefan [#]
Arsumoon 1-6 years ^{^#}	Artemef ^{^#}
Arsumoon 7-13 years [#]	Artemelum ^{^#}
Arsumoon Adults ^{^#}	Artemether-Plus ^{^#}
Camosunate Pediatric Below 1 Year [#]	Artheget-EZ [#]
Camosunate Children 1-6 Years [#]	Atmal [#]
Camosunate Junior 7-13 Years ^{^#}	Botamil Plus Oral Suspension for Children [^]
Camosunate Adult 14 Years and Above ^{^#}	Co-Artesiane Pediatric ^{^#}
Combisunate Junior 7-13 Years [^]	Co-Fanart 20/120 [#]
Dart Above 12 Years [^]	Coartesiane Pediatric [#]
Efonrex [#]	Coatal Pediatric [#]
Ibasunate [#]	Comether ^{^#}
Larimal Child 1-6 year [^]	Esefant Pediatric [#]
Winthrop Infant 2-11 months (25/67.5mg) ^{^#}	Famter [#]
Winthrop Toddler 1-5 years (50/135mg) ^{^#}	Gloatem 20/120 Pediatric [#]
Winthrop Child 6-13 years (100/270mg) ^{^#}	Hanmal Paediatric [#]
Winthrop Adult +14 years (100/270mg) ^{^#}	Havax [#]
	La-Tesen [#]
Artesunate Amodiaquine Granule	Lomasyl [#]
Artesmodia 1-6 Years [#]	Lonart 20/120 ^{^#}
Camosunate ^{^#}	Malastop ^{^#}
Combisunate [^]	Ogamal [#]
	Paluexit Pediatric [#]
Artesunate Mefloquine Granule	Pemametre ^{^#}
Artequick [#]	Salumether for Children ^{^#}
	Sarmata ^{^#}
Dihydroartemisinin Piperaquine Suspension	Tamether ^{^#}
Artecxin Child ^{^#}	
Codisin Plus [#]	
P-Alaxin ^{^#}	
Solartep ^{^#}	
[^] Product audited in the public sector [#] Product audited in the private sector	

Table X6: Severe Malaria Treatment

WHO recommends parenteral artesunate as first-line treatment in the management of severe falciparum malaria, with artemether or quinine injections as acceptable alternatives if parenteral artesunate is not available*. If complete treatment for severe malaria is not possible, patients with severe malaria should be given pre-referral treatment and referred immediately to an appropriate facility for further treatment. The following are options for pre-referral treatment: rectal artesunate, injectable quinine, injectable artesunate and injectable artemether.

Artemether Liquid Injection	
Amtepine ^{^#}	Meriter [^]
Anamether ^{^#}	Metarbul 80mg/1ml [#]
Andersons ^{^#}	Miracmether ^{^#}
Armeether ^{^#}	NCI Artemether Injection ^{^#}
Arteject-80 [#]	Nemether [^]
Artel Injection [^]	Nofalsi-H [#]
Artemether ^{^#}	Paludex Injection [#]
Artemether 80mg/1ml ^{^#}	Paluther 80 [#]
Artemetin [^]	Pamether ^{^#}
Artemetin-Beta ^{^#}	Paraline ^{^#}
Arteniter-80 ^{^#}	Paucio Artemether Injection ^{^#}
Artesam [^]	Pemalin ^{^#}
Artesiane 20 Pediatric [^]	Philomether ^{^#}
Artesiane 80 [^]	Rybovither ^{^#}
Arthec [#]	Sanarteme ^{^#}
Aterl ^{^#}	Sumether ^{^#}
Azether A-B Arteeter [^]	Talimether Injection [#]
Climax ^{^#}	Tyonex Artemether [^]
Decmether [^]	Vitboter [^]
Drutemal ^{^#}	Yovoline ^{^#}
Ejemether [#]	
Emal ^{^#}	Artemether Powder Injection
Fasthar ^{^#}	Anamether [#]
FQ Artemether ^{^#}	Artesiane 20 Pediatric [^]
Genmether ^{^#}	Genmether Injection [#]
Glinther ^{^#}	Meditex [^]
Gloather [#]	Paluther 80mg [#]
Gvither [#]	
Hanmet ^{^#}	Artesunate Liquid Injection
Hugo Artemether ^{^#}	Jawa Artesunate [^]
Jmether Injection [#]	Larinate [#]
K-Mal ^{^#}	Rekmal [^]
Kezz Artemether Injection ^{^#}	
Labnat ^{^#}	Artesunate Powder Injection
Lameter [#]	Artesun ^{^#}
Larither 40 [^]	Artesunat ^{^#}
Larither 80 [^]	Artesunate Injection [^]
Makimether [^]	Jawa Artesunate [^]
Malafi [^]	Larinate [#]
Meditex ^{^#}	Rekmal ^{^#}

Table X6: Severe Malaria Treatment**Quinine Liquid Injection**

Axoquine ^{^#}	Pecgina [^]
Bramaquine ^{^#}	Penine ^{^#}
Ecunine [^]	Quinine ^{^#}
Hamex Quinine [^]	Quinipack ^{^#}
Lab Quinine Injection ^{^#}	Quinipin ^{^#}
Liquid Quinine [^]	Rindoquine ^{^#}
Lizoquin [#]	Sinoquine [^]
Malacide ^{^#}	Softland ^{^#}
Mediquin [#]	

* Guidelines for the treatment of malaria, 2nd edition – revision 1.WHO. Geneva: 2010.

[^] Product audited in the public sector

[#] Product audited in the private sector

Annex 8: RDT Reference

	Public Health Facility	Community Health Worker	Private Not-for-Profit Facility	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	ALL Outlets
North Central	65	0	1	7	0	2	0	0	75
Census	5	0	1	6	0	2	0	0	14
Booster	60	0	0	1	0	0	0	0	61
North East	56	0	0	4	0	14	0	0	74
Census	9	0	0	4	0	14	0	0	27
Booster	47	0	0	0	0	0	0	0	47
North West	67	1	0	1	0	10	0	0	79
Census	12	1	0	1	0	9	0	0	23
Booster	55	0	0	0	0	1	0	0	56
South East	64	0	0	11	2	3	0	0	80
Census	6	0	0	11	2	3	0	0	22
Booster	58	0	0	0	0	0	0	0	58
South South	27	0	0	2	2	6	0	0	37
Census	3	0	0	2	2	6	0	0	13
Booster	24	0	0	0	0	0	0	0	24
South West	86	0	0	13	2	2	0	0	103
Census	10	0	0	13	2	2	0	0	27
Booster	76	0	0	0	0	0	0	0	76
TOTAL	365	1	1	38	6	37	0	0	448

Source: ACTwatch Outlet Survey, Nigeria, 2013.

Table X8: RDT Brand Names and Manufacturers*

Brand Name	Manufacturer
Accurate Malaria Cassette Pf #	Transgenies
Carestart Malaria ^#	Access Bio Inc.
Carestart Malaria HRP2 ^#	Access Bio Inc.
Carestart Malaria HRP2 (Pf) ^#	Access Bio Inc.
Carestart Malaria Pf ^#	Access Bio Inc.
Classic Malaria Pf #	Guangzhou Wondfo Biotech
Core One Step Test Kit Pf/Pv #	Core Technology Co. Ltd.
First Response Malaria Ag HRP2 ^#	Premier Medical Co. Ltd.
First Response Malaria Pf ^#	Premier Medical Co. Ltd.
Gab Control Pf #	Praxis- und Drogendiagnostik
Global Devices Malaria Pf Rapid Test Devices ^#	Global Devices
Hyper Test Malaria ^#	OGB Frank International Ltd.
Hyper Test Malaria Pf ^	OGB Frank International Ltd.
OnSite Rapid Test #	CTK Biotch Inc.
One Step Rapid Test Malaria Pf/Pv #	Healgen
Paracheck ^	Orchid Biomedical Systems
Paracheck Pf Device ^#	Orchid Biomedical Systems
Parahit Malaria PF ^	Span Diagnostics Ltd.
SD Bioline Malaria Ag Pf ^#	SD Standard Diagnostics Inc.
SD Bioline Malaria Ag Pf HRP2 ^#	SD Standard Diagnostics Inc.
SD Bioline Malaria Test Pf/Pan ^	SD Standard Diagnostics inc.

* 448 RDTs were audited. 1 RDTs was missing brand name information (missing or don't know) and 5 were missing manufacturer name (missing or don't know).

^ Product audited in the public sector

Product audited in the private sector

Annex 9. Sampling Weights

Sampling weights were applied for analysis of the Nigeria 2013 outlet survey data to account for variations in probability of selection as a result of the sampling design:

- 1) **Stratification:** Disproportionate allocation stratification was used to ensure adequate sample size within each of six research domains to allow for domain-specific estimates. The research domains were based on national designation of six geopolitical zones: North Central, North East, North West, South East, South South, and South West. A representative sample was selected within each domain.
- 2) **One-stage cluster sampling:** Localities were selected from sampling frames within each domain with probability proportional to size. Within each locality, a census of all outlets with the potential to sell or distribute antimalarials and/or provide malaria blood testing was conducted.
- 3) **Booster sample:** The geographic area for outlet sampling was extended to the LGA level for public health facilities. All public health facilities within LGAs in which the selected localities were located were included in the study.

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

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

Where:

- M_α = estimated cluster (population size)
- $\sum M_\alpha$ = sum of estimated cluster sizes (population size) in the entire stratum
- a = number of clusters selected within the stratum

Sampling weights are calculated at the cluster level and are applied to all outlets within a given cluster, irrespective of outlet type.

Market share was calculated using the full census data at the locality level only (i.e. the booster sample was not included in market share calculations). Locality sampling weights were created using the sampling weight formula, where:

- M_α = estimated locality population size
- $\sum M_\alpha$ = sum of estimated locality population sizes in the entire stratum
- a = number of localities selected within the stratum

The locality sampling weights were applied to all other indicators in the report for all outlet types with the exception of public health facilities. Given that public health facilities were included in the sample through an LGA-wide census, the weights applied to public health facilities for all indicators other than market share were calculated using the sampling weight formula, where:

- M_{α} = estimated LGA population size
- ΣM_{α} = sum of estimated LGA population sizes in the entire stratum
- a = number of LGAs selected within the stratum

The population estimates used to select localities with PPS and to create sampling weights were obtained from the Nigeria National Bureau of Statistics. A sampling frame with population sizes was used for selecting the sample because accurate estimates on the total number of outlets per geographic/administrative unit that may be eligible for a medicine outlet survey do not exist. The major assumption in using population figures for sampling and weighting is that distribution of outlets and/or distribution of medicines moving through outlets in a given cluster is correlated with population size.

Annex 10: Indicator Definitions

Table 1: Availability of antimalarials, among all screened outlets

Table 1 reports the proportion of all outlets enumerated that had any antimalarial in stock at the time of the survey visit. Antimalarial availability is reported among all outlets as well as among individual outlet types, all public outlets, and all private outlets. Availability is reported for any antimalarial as well as specific types of antimalarial medicines.

Numerator	Number of outlets with any antimalarial in stock at the time of the survey visit, as confirmed by presence of at least one antimalarial (defined as a medicine with antimalarial ingredients) recorded in the antimalarial audit section.
Denominator	Number of outlets screened.
Calculation	Numerator divided by denominator.
Handling missing values	All screened outlets will contribute to the denominator. This includes outlets that were eligible for interview (including antimalarial audit) but: 1) were not interviewed; or 2) the interview was partially completed.
Notes and considerations	Given partial or non-completion of interviews among eligible outlets and the inclusion of these outlets in the denominator, these availability indicators can be considered conservative estimates of antimalarial availability.

Table 2: Availability of antimalarials, among outlets stocking at least one antimalarial

Table 2 reports the proportion of antimalarial-stocking outlets with specific antimalarial in stock at the time of the survey visit. Antimalarial availability is reported among all outlets as well as among individual outlet types, all public outlets, and all private outlets. Availability is reported for any antimalarial as well as specific types of antimalarial medicines.

Numerator	Number of outlets with any antimalarial in stock at the time of the survey visit, as confirmed by presence of at least one antimalarial (defined as a medicine with antimalarial ingredients) recorded in the antimalarial audit section.
Denominator	Number of outlets with at least 1 antimalarial audited.
Calculation	Numerator divided by denominator.
Handling missing values	All outlets with at least one antimalarial recorded in the antimalarial audit sheet will contribute to the denominator. This includes outlets where the interview was not fully completed (partial interview).
Notes and considerations	Given partial completion of interviews among antimalarial-stocking outlets and the inclusion of these outlets in the denominator, these availability indicators can be considered conservative estimates of antimalarial availability.

Table 3: Antimalarial market composition

Table 3 reports the distribution of outlet types among outlets with at least one antimalarial in stock on the day of the survey.

Numerator	By outlet type, the number of outlets with any antimalarial in stock at the time of the survey visit, as confirmed by presence of at least one antimalarial (defined as a medicine with antimalarial ingredients) recorded in the antimalarial audit section.
Denominator	Total number of outlets with any antimalarial in stock at the time of the survey visit, as confirmed by presence of at least one antimalarial (defined as a medicine with antimalarial ingredients) recorded in the antimalarial audit section.
Calculation	Numerator for each outlet type divided by the denominator.
Handling missing values	All outlets with at least one antimalarial recorded in the antimalarial audit sheet will contribute to the indicator. This includes outlets where the interview was not fully completed (partial interview).
Notes and considerations	Market composition is calculated among outlets located within the representative sample of clusters (communes), and excludes the booster sample.

Table 4: Price of antimalarials

Table 4a provides the median price of an adult equivalent treatment dose (AETD, see Annex 8) for select tablet formulation types of antimalarials across outlet types. The inter-quartile range (IQR) is provided as a measure of dispersion.

Calculation	Median antimalarial AETD (see Annex 11) price in US dollars with inter-quartile range (25 th and 75 th percentiles).
Handling missing values	Antimalarials with missing price information are excluded from the median price calculation.
Notes and considerations	Price in US dollars is calculated based on exchange rates available from www.oanda.com using the historical exchange rates tool. The average exchange rate over the entire data collection period is used for converting local currency captured during data collection to US dollars.

- A. Table 4b reports the median price of one injection of an antimalarial that should be used for severe malaria treatment only (artemether injection, quinine injection). The inter-quartile range (IQR) is provided as a measure of dispersion.
- B. Table 4b also provides the median price of two pre-packaged QAACT therapies: pediatric appropriate for a 10kg child (2 years of age), and adult appropriate for a 60kg adult. The inter-quartile range (IQR) is provided as a measure of dispersion.

Calculation	Median antimalarial injection price in US dollars with inter-quartile range (25 th and 75 th percentiles). Median pre-packaged therapy price in US dollars with inter-quartile range (25 th and 75 th percentiles).
Handling missing values	Antimalarials with missing price information are excluded from the median price calculation.
Notes and considerations	Price in US dollars is calculated based on exchange rates available from www.oanda.com using the historical exchange rates tool. The average exchange rate over the entire data collection period is used for converting local currency captured during data collection to US dollars.

Table 5: Availability of malaria blood testing among antimalarial-stocking outlets

Table 5 reports the proportion of antimalarial-stocking outlets that had malaria blood testing available. Testing availability is reported among all outlets as well as among individual outlet types, all public outlets, and all private outlets. Availability is reported for any blood test as well as specific test types: microscopy and rapid diagnostic test (RDT).

Numerator	Number of outlets with malaria blood testing available (any, microscopy, RDT).
Denominator	Number of outlets with any antimalarial in stock at the time of the survey visit or reportedly stocked any antimalarial in the previous three months.
Calculation	Numerator divided by denominator.
Handling missing values	<ul style="list-style-type: none"> Antimalarial-stocking outlets with missing information about both availability of microscopy and availability of RDTs are excluded from this table. The number of such outlets is provided in a footnote. Outlets with partial information about availability of blood testing (information about microscopy or RDTs) are included in the denominator of the indicator “any blood testing available.” The number of such outlets is provided in a footnote. Indicators for RDT and microscopy availability exclude outlets with missing availability information respectively (i.e. outlets missing information about microscopy availability are excluded from the microscopy indicator).
Notes and considerations	Survey inclusion criteria extended to outlets providing blood testing but not stocking antimalarials (“diagnosis/testing-only outlets”). These outlets are excluded from this availability table.

Table 6: Price of malaria blood testing

A. Table 6 reports the median price of blood testing to consumers including any consultation or service fees. The inter-quartile range (IQR) is provided as a measure of dispersion.

Calculation	Median total blood test price in US dollars with inter-quartile range (25 th and 75 th percentiles).
Handling missing values	Microscopy-stocking outlets that are missing information about price of microscopy are excluded from this indicator. Audited RDTs with missing information about price of testing are excluded from this indicator.
Notes and considerations	Price in US dollars is calculated based on exchange rates available from www.oanda.com using the historical exchange rates tool. The average exchange rate over the entire data collection period is used for converting local currency captured during data collection to US dollars.

Table 7: Antimalarial market share

Antimalarial market share is the amount of adult equivalent treatment doses (AETD) reportedly sold or distributed in the previous week by outlet type and antimalarial type as a percentage of all AETDs sold/distributed in the previous week. Expressed as a percentage, market share is the amount of a specific antimalarial sold/distributed by a specific outlet type relative to the entire antimalarial market (all antimalarial types sold/distributed by all outlet types). Totals are reported per antimalarial medicine type and per outlet type. Across antimalarial medicine types and outlet types, percentages in the entire table sum to 100% (the total market).

Numerator	Number of AETDs sold/distributed for a specific antimalarial drug category and outlet type.
Denominator	Total number of AETDs sold/distributed.
Calculation	Numerator divided by denominator.
Handling missing values	AETDs sold/distributed are calculated among audited medicines with complete and consistent information. Antimalarials with incomplete or inconsistent information among key variables that define AETD sold/distributed (active ingredients, strength, formulation, package size, amount sold/distributed) are excluded from the calculation.
Notes and considerations	See Annex 11 for a description of AETD calculation.

Table 8: Antimalarial market share across outlet type

Antimalarial market share across outlet type is the amount of adult equivalent treatment doses (AETD) reportedly sold or distributed in the previous week by antimalarial type within each outlet type as a percentage of all AETDs sold/distributed in the previous week within the specified outlet type. Expressed as a percentage, outlet-type market share is the amount of a specific antimalarial sold/distributed relative to the entire antimalarial market segment for the specified outlet type (all antimalarial types sold/distributed by the specific outlet type). Totals are reported per antimalarial medicine type for each outlet type. Across antimalarial medicine types within each outlet type, percentages sum to 100%.

Numerator	Number of AETDs sold/distributed for a specific antimalarial drug category within the specified outlet type.
Denominator	Total number of AETDs sold/distributed within the specific outlet type.
Calculation	Numerator divided by denominator.
Handling missing values	AETDs sold/distributed are calculated among audited medicines with complete and consistent information. Antimalarials with incomplete or inconsistent information among key variables that define AETD sold/distributed (active ingredients, strength, formulation, package size, amount sold/distributed) are excluded from the calculation.
Notes and considerations	See Annex 11 for a description of AETD calculation.

Table 9: Provider case management knowledge and practices

Table 9 reports key indicators of provider case management knowledge and practices. These include referral practices for severe malaria and self-reported practices for managing clients who test negative for malaria.

Numerator	<p>A. Referral: respondents who indicated that they would refer to a health facility (response option #3). Note this numerator excludes providers located in a public or private health facility.</p> <p>B. Recommends antimalarials to test-negative clients: respondents who indicated “yes, always,” or “yes sometimes.”</p> <p>C. Circumstances for recommending an antimalarial: individual indicators for the most common responses provided to this open-ended question. Note this numerator excludes providers who did not respond to the previous question about recommending antimalarials to test-negative clients with “yes always” or “yes sometimes.”</p>
Denominator	<p>A. Referral: respondents who provided a response to this question, including “don’t know.” Note this denominator excludes providers located in a public or private health facility.</p> <p>B. Recommends antimalarials to test-negative clients: respondents who provided a response to this question, including “don’t know.”</p> <p>C. Circumstances for recommending an antimalarial: respondents who provided at least 1 response to this question, including “don’t know” (i.e. at least 1 variable in this series is non-missing). Note this denominator excludes providers who did not respond to the previous question about recommending antimalarials to test-negative clients with “yes always” or “yes sometimes.”</p>
Calculation	Numerator divided by denominator.
Handling missing values	<p>A. Providers missing a response to this question will be excluded from the indicator.</p> <p>B. Providers missing a response to this question will be excluded from the indicator.</p> <p>C. This indicator is assessed using an open-ended multiple response option question. Providers with at least one non-missing response in the variable series for this question will be included in the indicator. Among these sets of responses, missing will be treated as not mentioned.</p>
Notes and considerations	In some cases, multiple providers were interviewed at one outlet. A provider with responsibilities related to diagnosis may have responded to questions about malaria diagnosis and diagnostics (indicators B and C in Table 9), while a different provider responsible for prescribing and/or dispensing medicines may have responded to questions about danger signs of severe illness and referral for severe malaria (indicator A in Table 8). In all cases, the questions assessing provider knowledge and practices were administered only one time per outlet. As such, indicators are tabulated at the outlet level.

Table 10: Provider antimalarial treatment knowledge and practices

Table 10 reports key indicators of provider antimalarial treatment knowledge and practices. These include knowledge of the first-line treatment; knowledge of the first-line treatment dosing regimen for adults and children; citing ACT as most effective to treat malaria in adults and children; and citing ACT as most commonly recommended by the provider to manage malaria in adults and children.

Numerator	<ul style="list-style-type: none"> A. State first-line: providers who responded to p17 with a generic or brand name consistent with a national first-line treatment, or responded to p17 with “ACT,” or “ACTm” and in p18 provided a generic or brand name consistent with a national first-line treatment. In other words, providers must specifically name the first-line treatment using generic or brand name language in either p17 or p18. B. First-line regimen, adult: providers who correctly stated the first-line generic ingredients and strengths in p18, and correctly stated: number of days, times per day, and tablets per dose to be taken. C. ACT most effective, adult & child: Any response for this open-ended question whereby: 1) one medicine or a set of medicines to be used in combination is mentioned only i.e. multiple antimalarial medicines mentioned will be counted as incorrect; and 2) the combination of medicines is an ACT – defined either by using a brand name, generic name, “ACT,” or “ACTm.” If the provider mentions a correct ACT response and also mentioned an anti-pyretic (e.g. paracetamol), this response will be counted as correct. However, if the provider mentions a correct ACT response and also mentioned other drugs – such as an antibiotic – this answer will be counted as incorrect. D. ACT most often recommended, adult & child: Any response for this open-ended question whereby: 1) one medicine or a set of medicines to be used in combination is mentioned only i.e. multiple antimalarial medicines mentioned will be counted as incorrect; and 2) the combination of medicines is an ACT – defined either by using a brand name, generic name, “ACT,” or “ACTm.” If the provider mentions a correct ACT response and also mentioned an anti-pyretic (e.g. paracetamol), this response will be counted as correct. However, if the provider mentions a correct ACT response and also mentioned other drugs – such as an antibiotic – this answer will be counted as incorrect.
Denominator	<ul style="list-style-type: none"> A. State first-line: All providers who responded to p17 – please name the first-line medicine. B. First-line regimen, adult: All providers who responded to p17 (starting the series on first-line knowledge). C. ACT most effective, adult & child: All providers who responded to p13/14, including providers who responded with “don’t know,” who provided names of non-antimalarial medicines, and who responded with more than one antimalarial medicine not intended to be used as combination therapy. D. ACT most often recommended, adult & child: All providers who responded to p13/14, including providers who responded with “don’t know,” who provided names of non-antimalarial medicines, and who responded with more than one antimalarial medicine not intended to be used as combination therapy.
Calculation	Numerator divided by denominator.
Handling missing values	<ul style="list-style-type: none"> A. Providers missing a response to this question will be excluded from this indicator. B. Providers with partial information for the regimen questions will be included in the denominator (i.e. missing treated as not mentioned). C. Providers missing a response to this question will be excluded from the indicator. D. Providers missing a response to this question will be excluded from the indicator.

Annex 11. Adult Equivalent Treatment Dose (AETD)

Definition

Antimalarial medicines are manufactured using a variety of active pharmaceutical ingredients, dosage forms, strengths, and package sizes. ACTwatch uses the adult equivalent treatment dose (AETD) as a standard unit for price and sale/distribution analyses. One AETD is defined as the number of milligrams (mg) of an antimalarial drug required to treat an adult weighing 60 kilograms (kg). For each antimalarial generic, the AETD is defined as the number of mg recommended in treatment guidelines for uncomplicated malaria in areas of low drug resistance issued by the WHO. Where WHO treatment guidelines do not cover a specific generic, the AETD is defined based on peer-reviewed research or the product manufacturer's recommended treatment course for a 60kg adult. Table X9 lists AETD definitions used in this report.

While it is recognized that the use of AETDs may over-simplify and ignore many of the complexities of medicine consumption and use, this analytical approach was selected because it standardizes medication dosing across drug types and across countries (which may sometimes vary) thus permitting comparisons on both prices and volumes calculated on the basis of an AETD.

Additional considerations:

- Where combination therapies consist of two or more active antimalarial ingredients packaged together (co-formulated or co-blistered), the strength of only one principal ingredient is used. The artemisinin derivative is used as the principal ingredient for ACT AETD calculations.
- Co-blistered combinations are generally assumed to be 1:1 ratio of tablets unless otherwise documented during fieldwork or through manufacturer websites.
- Sulfamethoxypyrazine-pyrimethamine is assumed to have the same full course adult treatment dose as sulfadoxine-pyrimethamine.

Calculation

Information collected on drug strength and unit size as listed on the product packaging was used to calculate the total amount of each active ingredient found in the package. The number of AETDs in a unit was calculated.³⁷ The number of AETDs in a monotherapy is calculated by dividing the total amount of active ingredient contained in the unit by the AETD (i.e. the total number of mg required to treat a 60kg adult). The number of AETDs for a combination therapy was calculated by dividing the total amount of the active ingredient that was used as the basis for the AETD by the AETD.

³⁷ The unit is dependent on the drug dosage form. The unit for antimalarials in tablet, suppository, or granule form is the package. The unit for injectable antimalarials is the ampoule. The unit for syrup and suspension antimalarials is the bottle.

Table X9: Adult Equivalent Treatment Dose Definitions

Antimalarial Generic [Ingredient used for AETD mg dose value]	Dose used for calculating 1 AETD (mg required to treat a 60kg adult)	Source
Amodiaquine	1800mg	WHO Model Formulary, 2008
Amodiaquine Sulfadoxine- Pyrimethamine [Amodiaquine]	1800mg	WHO Model Formulary, 2008
Arteether	1050mg	WHO Use of Antimalarials, 2001
Artemether	960mg	WHO Use of Antimalarials, 2001
Artemether-Lumefantrine [Artemether]	480mg	WHO Guidelines for the treatment of malaria 2 nd edition, 2010
Artesunate	960mg	WHO Use of Antimalarials, 2001
Artesunate Amodiaquine [Artesunate]	600mg	WHO Guidelines for the treatment of malaria 2 nd edition, 2010
Artesunate-Mefloquine [Artesunate]	600mg	WHO Guidelines for the treatment of malaria 2 nd edition, 2010
Artemisinin-Piperaquine [Artemisinin]	504mg	Thanh NX, Trung TN, Phong NC, et al. 2012. The efficacy and tolerability of artemisinin-piperaquine (Artequick®) versus artesunate-amodiaquine (Coarsucam™) for the treatment of uncomplicated Plasmodium falciparum malaria in south-central Vietnam. <i>Malaria Journal</i> , 11:217.
Artesunate Sulfadoxine- Pyrimethamine [Artesunate]	600mg	WHO Guidelines for the treatment of malaria 2 nd edition, 2010
Chloroquine	1500mg	WHO Guidelines for the treatment of malaria 2 nd edition, 2010
Dihydroartemisinin	480mg	Manufacturer guidelines (Cotecxin - Holleypharm, MALUether - Euromedi)
Dihydroartemisinin- Piperaquine [Dihydroartemisinin]	360mg	WHO Guidelines for the treatment of malaria 2 nd edition, 2010
Halofantrine	1398mg	Manufacturer Guidelines (Plaquenil - Sanofi Aventis)
Hydroxychloroquine	2000mg	Manufacturer Guidelines (Plaquenil – Sanofi Aventis)
Mefloquine	1000mg	WHO Model Formulary, 2008
Quinine	10408mg	WHO Model Formulary, 2008
Sulfadoxine-Pyrimethamine	1500mg	WHO Model Formulary, 2008

Annex 12: Antimalarial Volumes

Table X10: Antimalarial volumes, by outlet type

AETDs sold or distributed in the previous week by outlet type and antimalarial type: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ALL Outlets
	%	%	%	%	%	%	%	%	%	%	%
1. Any ACT	445602.4 (343515.6, 547689.1)	14769.0 (4291.5, 25246.5)	25393.8 (0.0, 62670.1)	485765.2 (379608.1, 591922.2)	85858.1 (58379.4, 113336.8)	125598.8 (87407.5, 163790.2)	1243597.0 (1095080.0, 1392113.0)	197804.4 (128079.9, 267529.0)	394.4 (0.0, 844.4)	1653252.0 (1480160.0, 1826344.0)	2139018.0 (1935881.0, 2342154.0)
Artemether Lumefantrine	402119.8 (304899.3, 499340.3)	14769.0 (4291.5, 25246.5)	16642.7 (0.0, 64495.8)	433531.6 (332732.8, 534330.4)	78829.3 (54282.0, 103376.6)	104974.2 (67594.7, 142353.7)	1142979.0 (996466.3, 1289492.0)	172864.1 (108636.4, 237091.9)	394.4 (0.0, 844.4)	1500041.0 (1332217.0, 1667866.0)	1933573.0 (1737906.0, 2129240.0)
Artesunate Amodiaquine	34136.7 (6714.7, 61558.7)	0.0	8751.0 (0.0, 39731.1)	42887.7 (12996.5, 72779.0)	3124.1 (576.2, 5672.0)	5226.0 (3488.8, 6963.3)	41140.7 (27811.0, 54470.4)	102.5 (0.0, 246.3)	0.0	49593.3 (35791.7, 63394.9)	92481.0 (59151.0, 125811.0)
Dihydroartemisinin Piperavaquine	9345.9 (0.0, 27692.3)	0.0	0.0	9345.9 (0.0, 27692.3)	3681.5 (0.0, 8783.7)	12440.5 (7166.6, 17714.5)	58492.5 (45860.7, 71124.3)	21618.0 (0.0, 48934.5)	0.0	96232.5 (61629.2, 130835.9)	105578.4 (68142.3, 143014.5)
Other ACT	0.0	0.0	0.0	0.0	223.2 (0.0, 3264.3)	2958.1 (285.3, 5630.8)	984.0 (548.4, 1419.7)	3219.8	0.0	7385.2 (4705.5, 10064.8)	7385.2 (4705.5, 10064.8)
QAACT	425744.6 (326447.8, 525041.4)	11888.2 (691.2, 23085.1)	11633.7 (0.0, 30892.3)	449266.5 (348187.3, 550345.7)	68713.9 (41772.4, 95655.4)	43796.9 (32712.3, 54881.6)	1035569.0 (891693.9, 1179444.0)	124246.6 (75606.6, 172886.7)	394.4 (0.0, 844.4)	1272721.0 (1117700.0, 1427741.0)	1721987.0 (1536997.0, 1906977.0)
Artemether Lumefantrine QAACT	392195.4 (296995.1, 487395.7)	11888.2 (691.2, 23085.1)	2882.7 (0.0, 14271.2)	406966.3 (310602.7, 503329.8)	65807.0 (41445.1, 90168.9)	41353.7 (30790.4, 51917.1)	1002392.0 (859549.5, 1145234.0)	124149.6 (75599.6, 172699.6)	394.4 (0.0, 844.4)	1234096.0 (1080732.0, 1387461.0)	1641063.0 (1460084.0, 1822041.0)
Artesunate Amodiaquine QAACT	33549.2 (6081.5, 61016.9)	0.0	8751.0 (0.0, 39731.1)	42300.3 (12363.4, 72237.2)	2906.9 (309.6, 5504.2)	2443.2 (1373.9, 3512.5)	33177.2 (20563.3, 45791.1)	97.0 (0.0, 265.3)	0.0	38624.3 (25469.4, 51779.3)	80924.6 (48063.9, 113785.3)
QAACT with the "green leaf" logo	221577.5 (151633.6, 291521.4)	2765.5 (0.0, 8424.9)	0.0	224343.0 (153358.1, 295327.8)	65527.2 (38507.0, 92547.3)	37695.0 (27279.6, 48110.4)	829907.8 (694686.3, 965129.3)	116810.3 (68709.3, 164911.3)	394.4 (0.0, 848.4)	1050335.0 (903354.0, 1197315.0)	1274678.0 (1111781.0, 1437575.0)
Non-quality-assured ACT	19857.8 (0.0, 42238.9)	2880.8	13760.0	36498.7 (665.4, 72331.9)	17144.2 (10257.6, 24030.9)	81801.9 (45164.9, 118438.9)	208027.8 (181154.6, 234900.9)	73557.8 (23022.1, 124093.4)	0.0	380531.6 (304909.8, 456153.5)	417030.3 (335468.0, 498592.6)
Artemether Lumefantrine non-quality-assured ACT	9924.4 (0.0, 21354.0)	2880.8	13760.0	26565.3 (0.0, 58094.0)	13022.3 (7493.7, 18550.9)	63620.5 (27651.6, 99589.3)	140587.8 (117159.1, 164016.4)	48714.5 (6552.3, 90876.7)	0.0	265945.0 (199081.3, 332808.7)	292510.3 (220372.9, 364647.8)
Artesunate Amodiaquine non-quality-assured ACT	587.5 (0.0, 3508.3)	0.0	0.0	587.5 (0.0, 3508.3)	217.2 (154.3, 280.1)	2782.8 (1589.6, 3976.0)	7963.5 (4124.2, 11802.8)	5.5	0.0	10969.0 (6827.4, 15110.5)	11556.4 (7315.8, 15797.0)
Nationally Registered ACT	437190.3 (336139.0, 538241.7)	14769.0 (4291.5, 25246.5)	11633.7 (0.0, 30892.3)	463593.1 (360873.9, 566312.3)	82207.8 (54810.2, 109605.4)	114689.6 (77309.3, 152069.9)	1221064.0 (1073179.0, 1368948.0)	175880.1 (111464.3, 240295.9)	394.4 (0.0, 844.4)	1594235.0 (1424990.0, 1763481.0)	2057829.0 (1859764.0, 2255893.0)
First-line ACT ^W	436256.5 (335171.1, 537341.9)	14769.0 (4291.5, 25246.5)	25393.8 (0.0, 62670.1)	476419.3 (371233.9, 581604.7)	81953.4 (54760.3, 109146.4)	110200.2 (72634.5, 147765.9)	1184120.0 (1036470.0, 1331770.0)	172966.6 (108645.4, 237287.9)	394.4 (0.0, 844.4)	1549635.0 (1380084.0, 1719185.0)	2026054.0 (1826506.0, 2225602.0)
2. Any non-artemisinin therapy	241961.2 (139749.5, 344172.9)	31831.4 (5332.4, 58330.4)	9575.1 (0.0, 38794.0)	283367.7 (177937.8, 388797.6)	70706.9 (46458.5, 94955.2)	130632.1 (98287.1, 162977.2)	2527088.0 (2298532.0, 2755643.0)	200584.4 (127645.2, 273523.6)	8227.6 (1772.2, 14683.0)	2937239.0 (2693329.0, 3181149.0)	3220606.0 (2954360.0, 3486853.0)

Table X10: Antimalarial volumes, by outlet type

AETDs sold or distributed in the previous week by outlet type and antimalarial type: *	Public Health Facility	Community Health Worker	Private not-for-profit HF	ALL Public / Not for-profit	Private for-profit HF	Pharmacy	Drug Store	General retailer	Itinerant drug vendor	TOTAL Private	ALL Outlets
	%	%	%	%	%	%	%	%	%	%	%
Chloroquine	53035.1 (9055.3, 97015.0)	7005.5 (2170.4, 11840.5)	658.9	60699.5 (16251.8, 105147.2)	33294.4 (14768.2, 51820.7)	51306.5 (30123.3, 72489.8)	1039590.0 (918101.4, 1161079.0)	47021.7 (31245.6, 62797.9)	7291.4 (0.0, 14604.4)	1178505.0 (1051740.0, 1305269.0)	1239204.0 (1105214.0, 1373194.0)
Sulfadoxine-Pyrimethamine	186133.0 (92030.7, 280235.3)	24825.9 (0.0, 72658.1)	8236.3	219195.2 (120782.4, 317608.0)	32155.9 (15637.9, 48673.9)	76309.8 (54607.7, 98011.9)	1458734.0 (1270370.0, 1647097.0)	150996.0 (97049.9, 204942.0)	936.2 (0.0, 1972.9)	1719131.0 (1519929.0, 1918334.0)	1938327.0 (1718309.0, 2158344.0)
Oral Quinine	1615.7 (0.0, 3323.1)	0.0	0.0	1615.7 (0.0, 3323.1)	1004.8 (292.0, 1717.6)	566.7 (321.0, 812.4)	15859.1 (10303.5, 21414.7)	0.0	0.0	17430.6 (11585.2, 23275.9)	19046.3 (13001.5, 25091.1)
Quinin Injection (IM/IV)	212.4 (0.0, 516.9)	0.0	679.9	892.3 (126.9, 1657.7)	1629.5 (198.6, 3060.4)	104.7 (0.0, 241.4)	3900.2 (2420.0, 5380.3)	0.0	0.0	5634.4 (3263.5, 8005.4)	6526.7 (4072.1, 8981.4)
Amodiaquine	0.0	0.0	0.0	0.0	2622.3 (1041.0, 4203.5)	572.7 (205.8, 939.6)	5571.5 (3480.3, 7662.8)	2495.0 (836.8, 4153.1)	0.0	11261.4 (7828.9, 14694.0)	11261.4 (7827.0, 14695.9)
3. Oral artemisinin monotherapy	2482.5 (1024.8, 3940.2)	0.0	0.0	2482.5 (1024.8, 3940.2)	1576.2 (430.0, 2722.4)	7164.2 (3941.4, 10387.0)	86371.8 (61331.4, 111412.2)	15732.3 (0.0, 36997.4)	0.0	110844.5 (77586.3, 144102.7)	113327.0 (80050.0, 146603.9)
4. Non-oral artemisinin monotherapy	83334.5 (1342.6, 165326.5)	386.4	0.0	83720.9 (2037.5, 165404.2)	8647.4 (4237.5, 13057.3)	1258.4 (542.3, 1974.5)	60644.1 (37746.8, 83541.3)	0.0	0.0	70549.8 (46965.9, 94133.7)	154270.6 (74666.9, 233874.4)
Artemether IV/IM	21611.3 (5095.9, 38126.7)	386.4	0.0	21997.7 (5475.0, 38520.3)	6695.0 (2894.8, 10495.2)	931.2 (306.1, 1556.3)	58207.0 (35449.2, 80964.9)	0.0	0.0	65833.2 (42435.9, 89230.6)	87830.9 (60078.5, 115583.3)
Artesunate IV/IM	61229.2 (0.0, 134997.8)	0.0	0.0	61229.2 (0.0, 134997.8)	1127.2 (0.0, 2961.4)	135.0 (0.0, 458.6)	1934.5 (0.0, 6281.7)	0.0	0.0	3196.8 (0.0, 6615.6)	64426.0 (0.0, 133569.6)
5. Any treatment for severe malaria	83052.9 (1377.5, 164728.3)	386.4	679.9	84119.2 (3050.1, 165188.3)	9451.7 (4983.5, 13919.9)	1171.0 (411.0, 1930.9)	64041.7 (40924.5, 87159.0)	0.0	0.0	74664.4 (50687.2, 98641.6)	158783.6 (79013.1, 238554.1)
OUTLET TYPE TOTAL***	773380.6 (609390.0, 937371.1)	46986.8 (21944.8, 72028.7)	34968.9 (0.0, 70986.1)	855336.3 (687086.1, 1023586.0)	166788.5 (128549.6, 205027.3)	264653.5 (213273.0, 316034.1)	3917700.0 (3642981.0, 4192418.0)	414121.1 (309954.7, 518287.6)	8622.0 (21940.6, 15303.4)	4771885.0 (4469935.0, 5073836.0)	5627221.0 (5281291.0, 5973151.0)

* A total of 51,124.1 AETDs were reportedly sold or distributed in the previous seven days. See Annex 11 for a description of AETD calculation and Annex 12 for AETD numbers by outlet type and drug category.

Ψ At the time of the 2013 ACTwatch outlet survey, artemether lumefantrine and artesunate amodiaquine were Nigeria's first line treatments for uncomplicated malaria.

A total of 11,074 antimalarials were audited. Of these, 729 audited antimalarials were not included in market share calculations due to incomplete or inconsistent information.

Source: ACTwatch Outlet Survey, Nigeria, 2013.

