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A CENSUS OF PRIVATE HEALTH FACILITIES IN SIX STATES OF NIGERIA

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ACRONYMS

ACT	Artemisinin-combination Therapy
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
BCS	Balanced Counseling Strategy
CPR	Contraceptive Prevalence Rate
FP	Family Planning
HIV	Human Immunodeficiency Virus
IUD	Intrauterine Device
LGA	Local Government Authority
MCH	Maternal and Child Health
NGO	Nongovernmental Organization
NHIS	National Health Insurance Scheme
ORS	Oral Rehydration Solution
RDT	Rapid Diagnostic Test
RH	Reproductive Health
SHOPS	Strengthening Health Outcomes through the Private Sector
SP	Sulfadoxine-Pyrimethamine
TB	Tuberculosis
TFR	Total Fertility Rate
UNICEF	United Nations International Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

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EXECUTIVE SUMMARY

The private sector is an important provider of health care in Nigeria. Prior to this report, however, data on the number of private sector facilities in Nigeria, the services they offer, and their geographic distribution were relatively limited. In 2012/13, the USAID-funded Strengthening Health Outcomes through the Private Sector (SHOPS) Nigeria project conducted a census of *all* formal private health facilities (with the exception of patent medical vendors¹) in the following six states: Abia, Benue, Edo, Kaduna, Lagos, and Nasarawa. Data were collected on infrastructure, staff, patient volume, and health services offered at all facilities visited. In Lagos state, additional data were collected on quality of family planning counseling, access to finance, and the business practices of the facilities. The results of that census are presented in this report.

The census addressed the following key research questions for the six states in which the census was conducted:

1. What is the overall size of the private health sector in terms of number of facilities?
2. How accurate are government lists of private health facilities?
3. What infrastructure do private health facilities have access to?
4. What is the quality and volume of family planning services offered by private health facilities?
5. Are private providers constrained in growing their business due to capital constraints?

In addition to this report, data from the census in Lagos will also be used as a baseline for two randomized controlled trials (currently underway) of the SHOPS Nigeria family planning training and access to finance programs in Lagos.

Major findings from the report include the following:

TOTAL NUMBER OF FACILITIES BY TYPE

- There were approximately 5,086 formal private health facilities in the six states. More than half of all private health facilities in the six states were located in Lagos, which also had the most facilities per capita.
- Approximately 31 percent of the private health facilities were clinics, 29 percent were hospitals or medical centers, 28 percent were community pharmacies, and 13 percent were nursing homes.

ACCURACY OF OFFICIAL LISTS

- Approximately 32 percent of private health facilities located in this census were not included in official government lists.

¹ Patent medical vendors were not included in this study in order to avoid duplication of efforts because the USAID-funded Expanded Social Marketing Project in Nigeria focuses on this group of providers.

- Approximately 53 percent of the private health facilities included in official government lists could not be found by surveyors.

INFRASTRUCTURE, STAFF, AND PATIENT VOLUME

- The majority of facilities of all types (89 percent, excluding community pharmacies) had basic equipment, including a working stethoscope, blood pressure instrument, thermometer, needles, syringes, gloves, and a scale.
- A large proportion (greater than 90 percent in most states) of facilities had access to grid electricity. However, reliability of the grid electricity was low: in all states fewer than half of facilities reported having a full 8 hours of grid electricity per day.
- Access to piped water was limited². Overall, only 41 percent of facilities had access to piped water. In Benue, only 10 percent of facilities had access to piped water.
- The private facilities surveyed in this study employed a total of 42,296 providers. Nearly half (46%) of the providers were either auxiliary nurses or nurses/nurse midwives. Doctors made up the next largest portion of providers at 16 percent of all providers.
- Overall, private facilities saw a median of 10 patients per day with community pharmacies seeing the largest number of clients (30) followed by hospitals/medical centers (15), clinics (7), and nursing homes (6).

FAMILY PLANNING SERVICES

- Approximately 71 percent of private health facilities (excluding community pharmacies³) offered at least some family planning service.
- The proportion of facilities offering family planning varied greatly across states from 55 percent in Benue and Lagos to 81 percent in Kaduna.
- The total number of family planning clients at private health facilities was relatively low: the median number of family planning clients per month per facility was five.
- In Lagos, among facilities that did not offer family planning services, the most common reasons cited for not offering family planning services were lack of demand (25%) and inadequate knowledge and skills in family planning (25%).
- In Lagos, a large portion (42%) of facilities offering family planning services indicated that they planned to offer additional family planning methods, especially implants, in the future.

HIV AND AIDS, MATERNAL AND CHILD HEALTH, AND OTHER HEALTH SERVICES

- More than 80 percent of clinics, hospitals/medical centers, and nursing homes offered inpatient services.
- To treat malaria in children, 85 percent of facilities (excluding community pharmacies) used artemisinin combination therapy (ACT). A substantial portion of facilities also used other

² If a facility has piped water from a bore hole, this is considered to be piped water access.

³ Community pharmacies do not provide family planning services, but they are allowed to fill prescriptions for some family planning products. They are expected to provide referrals when clients opt for clinical methods such as IUDs, implants, and injectables.

methods such as chloroquine (27%) and sulfadoxine-pyrimethamine (7%). We found that 18 percent of facilities used artemisinin monotherapy, which is not only less effective than ACT but also carries public health risks.

- 79 percent of facilities (excluding community pharmacies) reported that they typically prescribe oral rehydration solution for uncomplicated pediatric diarrhea, but only 5 percent reported typically prescribing zinc for pediatric diarrhea management. Antibiotics, which are recommended only in certain severe cases, and antidiarrheal medication, which is never recommended, are used much more frequently than zinc.

PROVISION OF PHARMACEUTICALS

- Nearly all (92 percent) facilities provided pharmaceuticals.
- The survey found that 76 percent of facilities complied with basic drug storage practices.
- The vast majority of facilities, at 90 percent, indicated that they purchase their supplies of drugs from the open market.

QUALITY OF FAMILY PLANNING COUNSELING (MYSTERY CLIENT, LAGOS ONLY)⁴

- Providers were responsive to the mystery client patient's needs. In line with the patient's profile, providers gave information on long-acting family planning methods (IUDs, injectables, and implants) more than other methods.
- Providers, for the most part, gave information on effectiveness and side effects of any family planning methods they mentioned.
- Providers often failed to ask key questions necessary to gauge patient preferences, rule out pregnancy, and check for contraindications to specific family planning methods.

ACCESS TO FINANCE AND BUSINESS PRACTICES (LAGOS ONLY)

- Few (9%) facilities had taken out a loan (from any source) in the past 12 months. Borrowing rates were relatively similar across facility types.
- Among those facilities that had not taken out a loan in the past 12 months, the most common reasons given were "no need" (36%), "interest rates too high" (36%), and "application process too complex" (17%).
- Most loans (58%) were from banks.
- The most commonly cited reasons for taking out loans were to buy supplies (67%), to purchase equipment (51%), and to improve physical building (50%)⁵.
- Despite relatively low levels of borrowing in the form of loans, use of trade credit was very high, particularly among community pharmacies, 70 percent of whom said they received trade credit from at least one supplier.
- The vast majority (92%) of proprietors of private facilities in Lagos saw their facility as a business in addition to being a health service provider.

⁴ The mystery client methodology is explained in detail in the methodology section.

⁵ Totals exceed 100 percent, as respondents could indicate multiple purposes for their loans.

- Among facilities in Lagos, 96 percent had a system for recording financial transactions and 66 percent had a system for recording patient numbers. However, 95 percent of proprietors said their systems for record keeping could use improvement.

1. INTRODUCTION

The United States Agency for International Development (USAID), through the Strengthening Health Outcomes through the Private Sector (SHOPS) project led by Abt Associates Inc., is investing in strengthening clinic-based family planning, reproductive health, maternal and child health (MCH), and malaria services in Nigeria in six focal states: Abia, Benue, Edo, Kaduna, Lagos, and Nasarawa. To achieve this goal, the SHOPS Nigeria project is addressing the following four intermediate results: *Supply*: expanded delivery of quality services and counseling by private clinic-based providers; *Demand*: increased use of private sector clinic-based services through targeted communication and behavior change interventions; *Policy*: increased private sector participation in policy dialogue, collaboration, and partnerships between the public and private health sectors; and *Knowledge*: increased knowledge about the private sector's contribution to FP/RH in Nigeria. Funded by USAID/Nigeria, SHOPS Nigeria began in August 2011 and will continue through August 2016.

A hurdle the SHOPS project faced in designing and executing effective programs for private sector providers has been the lack of data on private sector facilities. Although the ministries of health in each state maintain lists of private health facilities, these lists are often incomplete and contain very limited data at the facility level. To gain a better understanding of the number, location, and capacity of private health facilities in the six SHOPS focal states, SHOPS conducted a systematic census of all private health facilities in these states. Excluding patent medical vendors, all formal private health facilities in these states, both for-profit and not-for-profit, were identified and surveyed.⁶ SHOPS collected detailed data on each private facility's infrastructure, staff, and health services offered. In Lagos, SHOPS also implemented a mystery client survey to assess the quality of family planning counseling and an additional survey on business practices and access to finance. The census sought to answer the following key research questions:

1. What is the overall size of the private health sector in terms of number of facilities?
2. How accurate are government lists of private health facilities?
3. What infrastructure do private health facilities have access to?
4. What is the quality and volume of family planning services offered by private health facilities?
5. Are private providers constrained in growing their business due to capital constraints?

In addition to this report, data from the census in Lagos will also be used as a baseline for two ongoing randomized controlled trials of SHOPS Nigeria's family planning training and access to finance programs in Lagos.⁷

⁶ Patent medical vendors were not included in this study in order to avoid duplication of efforts. The USAID-funded Expanded Social Marketing Project in Nigeria project focuses on this group of providers.

⁷ For more information on the randomized controlled trials currently underway by SHOPS's programs in Lagos, please visit <http://www.shopsproject.org/about/research-and-evaluation>.

1.1. NIGERIA'S HEALTH SYSTEM

Nigeria has made significant improvements in its health sector in recent years, but still faces sizable challenges. For instance, the total fertility rate is 5.7 children per woman, the mortality rate of children under 5 years old is estimated at 157 per 1,000 live births, and the total contraceptive use (any method, among married women) is at 14.6 percent while modern contraceptive methods have a 9.7-percent prevalence rate, adult HIV prevalence is estimated at 5 percent, and immunization rates are low, with only 23 percent of children receiving all of their recommended vaccinations (National Population Commission and ICF Macro, 2008).

Nigeria's economic and geographic health discrepancies are pronounced, with poorer households receiving far less medical care than the relatively wealthy, and Northern regions lagging far behind Southern states with respect to many health indicators. For example, while total contraceptive use in the Southwest region is above 25 percent, in the Northwest region this figure falls to 2.8 percent. Likewise, while the highest and middle wealth quintiles of the Nigerian population fully vaccinate their children at rates of 53 percent and 20 percent, respectively, the proportion of fully-vaccinated children falls to 4.8 percent among the poorest Nigerian households (National Population Commission and ICF Macro, 2008).

According to the most recent available World Health Organization (WHO) National Health Account analysis from 2003-2005, consumers pay a high share of health expenditures—67 percent of health expenditures are out of pocket versus 26 percent from the government and 7 percent from the private sector (private insurance and employers) (Soyibo et al, 2009). Data also show that use of private providers for healthcare is high in Nigeria. For example, according to the 2008 Nigeria Demographic and Health Survey 60.4 percent of women using modern contraception obtained their method of contraception most recently from a private provider. (National Population Commission and ICF Macro, 2008)

1.2. BACKGROUND ON SIX FOCAL STATES

The six states included in this census were selected with USAID approval for the implementation of the SHOPS Nigeria project. The majority of people (49.8% to 92.7%) in Abia, Edo, and Lagos live in urban areas while the majority of people (66.8% to 85.8%) in Benue, Kaduna, and Nasarawa live in rural areas (Table 1). According to the Nigeria Demographic and Health Survey 2008, Total Fertility Rate (TFR) is relatively high in Kaduna (6.3) and Benue (5.9) states. The contraceptive prevalence rate (CPR) varies substantially, from a high of 25.8 percent in Lagos to a low of 7.6 percent in Kaduna. Similarly, use of private providers for family planning services also varies widely, however, in all states, at least 30 percent of family planning care is provided by private providers.

TABLE 1. DEMOGRAPHIC STATISTICS FOR SIX STATES

State	Population	% Urban	Modern CPR	TFR	% Of FP Use In Private Sector
Abia	2,845,370	50.8	10.7	4.4	74.6
Benue	4,253,641	16.9	11.8	5.9	64.8
Edo	3,233,366	49.8	15.8	5.3	70.4
Kaduna	6,113,503	33.3	7.6	6.3	47.9
Lagos	9,013,534	92.7	25.8	4.0	71.8
Nasarawa	1,869,377	14.2	9.6	4.7	35.8
Six states combined	27,328,791	52.8	14.0	5.1	63.0
Nigeria Average	174,507,539	35.8	10.5	5.7	60.4

Source: TFR, modern CPR, and use of private providers for family planning estimates from Nigeria Demographic and Health Survey 2008⁸; total population estimate from CIA World Factbook⁹; state population estimates from 2006 Census¹⁰

Note: Represents the average of all six states, weighted by total population, for each characteristic. Use of private providers for family planning is the proportion of respondents who reported using any method of family planning who reported obtaining that method most recently from a formal private provider.

1.3. TYPES OF PRIVATE HEALTH FACILITIES

Formally registered private health facilities in Nigeria may be loosely categorized into five types: hospitals/medical centers, clinics, nursing homes, community pharmacies, and patent medical vendors. These facility categories are defined below.

Hospitals/medical centers are facilities that typically have at least one doctor and offer a variety of inpatient services.

Clinics are facilities that typically offer outpatient and more limited inpatient services.

Nursing homes are facilities owned and operated by a nurse or midwife with at least five years of experience. According to Nigerian federal law, nursing homes should have access to a doctor at all times so that they will know when to refer patients whose conditions are beyond their capacity to treat. The interpretation of this law varies somewhat by state. In Lagos a doctor is required to be on site at all times, while in other states, nursing homes are only required to have a doctor on call (Barnes et al., 2008).

Community pharmacies are stand-alone retail pharmacies that employ a trained pharmacist and that are licensed by the Pharmacy Council of Nigeria to sell prescription pharmaceuticals.

Patent medical vendors are stand-alone medicine shops licensed by the Pharmacy Council of Nigeria that are only allowed to sell certain basic medications. Patent medical vendors are not required to employ any formally trained health workers, though many do (Barnes et al, 2008).

SHOPS collected data for all of these facility types except for patent medical vendors.¹¹ SHOPS only collected data for formal private facilities; informal private health facilities such as traditional healers and alternative medical practitioners were not included in the census.

In the case of facilities with doctors—clinics and hospitals/medical centers—the categorization depended primarily on the registered name of the facility and the opinion of the facility owner.

⁸ <http://microdata.worldbank.org/index.php/catalog/1459>

⁹ <https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html>

¹⁰ http://en.wikipedia.org/wiki/List_of_Nigerian_states_by_population#cite_note-1

¹¹ Patent Medical Vendors were not included in this study in order to avoid duplication of efforts because the USAID-funded Expanded Social Marketing Project in Nigeria project focuses on this group of providers.

While hospitals/medical centers generally offer more inpatient services and have more inpatient beds than clinics, this difference is not precise and there is no regulatory distinction between the two facility types. During the census, SHOPS encountered several facilities that called themselves clinics and offered a large number of services and had a relatively large number of inpatient beds. SHOPS also encountered several facilities that called themselves hospitals or medical centers but offered relatively few inpatient services and had few inpatient beds. One notable difference between clinics and hospitals/medical centers is that in practice, many clinics (28%) did not have a doctor on their staff while nearly all hospitals/medical centers (98%) did have at least one doctor.

2. METHODOLOGY

SHOPS surveyed a total of 5,068 private health facilities as part of the private health facility census. The sections below describe the methods used to identify and locate facilities, the types of data collected from each facility, and the steps taken to ensure the quality of the data collected. Table 2 provides a summary of the types of data collected.

TABLE 2: SUMMARY OF FACILITY DATA COLLECTED

Data	Facilities From Which Data Were Collected
Infrastructure, health services, staff, patient volume, and record keeping	All facilities in all six census states
Quality of family planning counseling (Mystery client survey)	937 facilities in Lagos selected to participate in two randomized controlled trials of the SHOPS Nigeria program
Business practices and access to finance	All facilities in Lagos

2.1. LOCATING PRIVATE HEALTH FACILITIES

2.1.1. OFFICIAL LISTS

Prior to surveying, SHOPS obtained lists of private health facilities in all states from the relevant agency at the state Ministry of Health. In Lagos, SHOPS obtained a second list of private health facilities from the National Health Insurance Scheme (NHIS), a government-run health insurance program that provides health insurance to government employees and is open to private firms that seek to participate in the scheme. NHIS provided SHOPS with a list of all facilities registered to participate in the scheme through accredited Health Maintenance Organizations.

2.1.2. SNOWBALL SAMPLING

During the census, surveyors used a technique known as “snowball sampling” to identify private health facilities not included in either of the official lists. In snowball sampling, respondents and other community members are asked to identify additional facilities in the surrounding neighborhood. In addition, surveyors searched visually for additional facilities in the areas they were assigned to survey. Both the survey firm and the individual data collectors were paid on a per-facility basis to incentivize locating as many facilities as possible.

2.2. DATA COLLECTED FROM PRIVATE HEALTH FACILITIES IN ALL STATES

SHOPS administered a structured questionnaire in all facilities in all six states. The questionnaire included detailed questions on (1) infrastructure, including number of beds and access to basic services, (2) health services offered with a particular focus on family planning services, (3) staff employed by the facility broken down by cadre and whether the staff were full or part time, (4) patient volume, (5) pharmaceutical supply, and (6) record keeping. The survey was administered to the facility manager or person at the facility most knowledgeable about the facility. The questionnaire was based in part on the one used in the Demographic and Health Surveys Service Provision Assessment health facility surveys but was modified to focus on information required for the two randomized controlled trials for which this survey served as a baseline.

2.3. ADDITIONAL DATA COLLECTED IN LAGOS

Three additional surveys were conducted in Lagos only. First, data on business practices and recent borrowing activity were collected from all facilities in Lagos in a “proprietor” survey administered to the owner of the private health facility. Second, for a subset of facilities in Lagos, data on the quality of family planning counseling was collected through the use of mystery client surveys. Third, after the general facility survey was complete, a small portion of geographic clusters in Lagos were randomly selected to be searched a second time (intensive search). During this second round of searching, surveyors performed street by street walk-throughs to search for any facilities that were missed during the initial surveying and collected data from all newfound facilities. Each of these surveys is described in more detail below.

2.3.1. PROPRIETOR SURVEY

At all facilities in Lagos a second survey was administered to the proprietor of the facility.¹² This second survey included questions related to business practices, revenues and expenses, and access to finance.

2.3.2. MYSTERY CLIENT SURVEY

The general facility and proprietor surveys sought to collect data on the number of facilities, staffing, and infrastructure of private health facilities in Lagos. While these data may provide insight into *inputs* in the private health sector in Lagos, they do not directly capture health care *quality*. To measure the quality of family planning provision at private health facilities in Lagos state, we utilized a survey technique known as mystery client surveys. In a mystery client survey, the surveyor pretends to be a patient with a specific condition or medical need and interacts with the provider as a normal patient would, following a standard script. After exiting the facility, the surveyor and an accompanying note taker fill out a form containing questions about the experience. Use of mystery clients to measure health care quality in other settings has revealed that inputs are often poor predictors of health care quality. For example, Das et al. (2012) found that providers in India often provided far worse clinical advice than their *input* measures, such as education and knowledge, would predict.

¹² Proprietor was defined as the individual who makes major financial decisions for the facility, such as whether to buy equipment or make major improvements to the physical structure.

Mystery clients were conducted at 937 private health facilities selected for a separate study of a SHOPS training program in Lagos.¹³ These 937 facilities are not representative of the entire population of private health facilities in Lagos but were selected for the separate study based on a set of criteria intended to filter out facilities that would not benefit from the SHOPS training. Specifically, only facilities that indicated that they offer family planning services and had not received previous SHOPS training during the initial survey were selected for the study. Likewise, community pharmacies were not selected for mystery client visits because they do not conduct the type of family planning consultations that the mystery client survey measured. Facilities with very low patient volume were also excluded from mystery client visits.¹⁴ Lastly, a small number of facilities (20) demanded exorbitant fees in excess of 10,000 Naira¹⁵ (approximately \$63) for the consultation (compared to a median fee of 0 Naira since many do not charge for the consultation itself). Mystery client surveys were only conducted in six out of these 20 particularly costly facilities.¹⁶

In developing norms for the performance of private providers during the mystery client surveys, we made use of the Balanced Counseling Strategy (BCS) for family planning counseling developed by the Population Council. The Population Council developed BCS using norms and guidance from the WHO, as well as research on what techniques are most effective in performing family planning counseling.¹⁷

Mystery client surveyors assumed the role of a mother with two young children who does not wish to have any more children for two or three years. Mystery client surveyors were provided detailed instructions on what to say and do during provider visits and were trained extensively to ensure that all mystery client surveys were consistent and comparable.

Twelve women between the ages of 28 and 35 were recruited to act as mystery client surveyors. Three of the surveyors were Muslim and nine were Christian; all had at least a bachelor's degree. Twelve additional women were recruited to serve as note takers who would meet the women after their consultation to document what took place. After each consultation, the surveyors and note takers used a standard form to record:

- Waiting time to see the provider
- Cost of services
- Whether the provider checked for symptoms and contraindications
- Types of contraceptive methods discussed
- Whether the provider explained the advantages and disadvantages of methods, proper use of methods, and side effects

2.3.3. INTENSIVE SEARCH

As noted above, during the initial survey, surveyors employed a variety of methods to identify and survey as many private health facilities as possible, and payments were made based on a per-facility fee. These methods proved effective in identifying a large number of private health

¹³ The study is a randomized controlled trial to estimate the impact of SHOPS business and family planning training.

¹⁴ The median rate of client flow across all facilities was 10 per day (see section 3.3.3 for details).

¹⁵ One USD is roughly 157 Naira.

¹⁶ After conducting these six interviews at the facilities that charged over 10,000 Naira, the data collection firm asked SHOPS if they should continue to conduct mystery client surveys at such expensive facilities and SHOPS staff directed them to not do so.

¹⁷ For more information on BCS, please see:

http://www.popcouncil.org/publications/books/2008_BalancedCounselingStrategy.asp.

facilities in Lagos state, yet due to the lack of a comprehensive list of all private health facilities, and the urban density of Lagos, some facilities may have been overlooked during this census.

To estimate the proportion of private health facilities missed during the census and to determine how these overlooked facilities differ from those found, a second more intensive census was done in a small number of randomly selected geographic areas. During this second “intensive search,” surveyors were provided maps showing the locations of all private health facilities identified during the first census and instructed to systematically walk through each block of the selected locations and survey any additional private health facilities found—a level of scrutiny that would have been prohibitively costly and time consuming for surveying all of Lagos. Both the survey company and individual surveyors were paid a significantly larger per-facility fee for each facility found during this intensive search than during the normal mapping exercise. The back-checker consultant was also used to verify the accuracy of this exercise.

Lagos state is divided into 20 Local Government Authorities (LGAs) and roughly 853 localities. Thirty localities were randomly selected for the intensive search using the following process. First, a list of all localities along with the number of facilities found during the initial census was generated. The median number of health facilities per locality was 11 facilities (average was 16.6). During the initial census, each facility was asked to list their LGA and locality. This list of localities was manually corrected by a member of the research team to ensure consistency in spelling, and all localities with fewer than three facilities were removed from the list as these were determined to be mainly typographical errors. This initial step of generating a sampling frame of localities was necessary as the research team was unable to obtain an official list of localities.

Next, 30 localities were selected from this list using probability proportional to size sampling where size was defined as the number of facilities identified during the initial mapping.

2.4. EXCLUSION OF CONFLICT AREAS

The surveyors were unable to administer the survey in a small number of areas in Nasarawa and Benue states due to ongoing conflict. A total of 51 facilities from the official lists in these two states could not be surveyed (Table 3).

TABLE 3: NUMBER OF FACILITIES NOT VISITED DUE TO CONFLICT, BY LGA

State Name	LGA Name	Number Of Facilities Not Visited
Benue	Agatu	1
Benue	Gwer West	1
Benue	Konshisha	2
Benue	Ushongo	7
Benue	Vandeikya	2
Nasarawa	Awe	4
Nasarawa	Doma	16
Nasarawa	Keana	1
Nasarawa	Kokona	8
Nasarawa	Lafia	4
Nasarawa	Nasarawa	4
Nasarawa	Obi	1
Total		51

3. FINDINGS

3.1. TOTAL NUMBER OF FACILITIES BY TYPE

Highlights from this section:

There were approximately 5,086 private health facilities in the six states. Over half of all private health facilities in the six states were located in Lagos, which also had the most facilities per capita.

Approximately 31 percent of the private health facilities were clinics, 29 percent were hospitals or medical centers, 28 percent were community pharmacies, and 13 percent were nursing homes.

3.1.1. TOTAL PRIVATE HEALTH FACILITIES BY STATE AND TYPE

SHOPS identified a total of 5,086 private facilities in the six census states. These included 1,552 clinics, 1,463 hospitals/medical centers, 662 nursing homes, and 1,409 community pharmacies. Roughly half (2,654) of all facilities were in Lagos. The total number of private health facilities in each state was 389 in Abia, 610 in Benue, 450 in Edo, 718 in Kaduna, 2,557 in Lagos, and 362 in Nasarawa (Figure 1). When considered on a per capita basis, Lagos had 2.5 private health facilities per 10,000 people, followed by Nasarawa (1.9 facilities), Benue (1.4 facilities), Edo (1.4 facilities), Kaduna (1.2 facilities), and Abia (0.84 facilities).

FIGURE 1: NUMBERS OF PRIVATE FACILITIES BY STATE

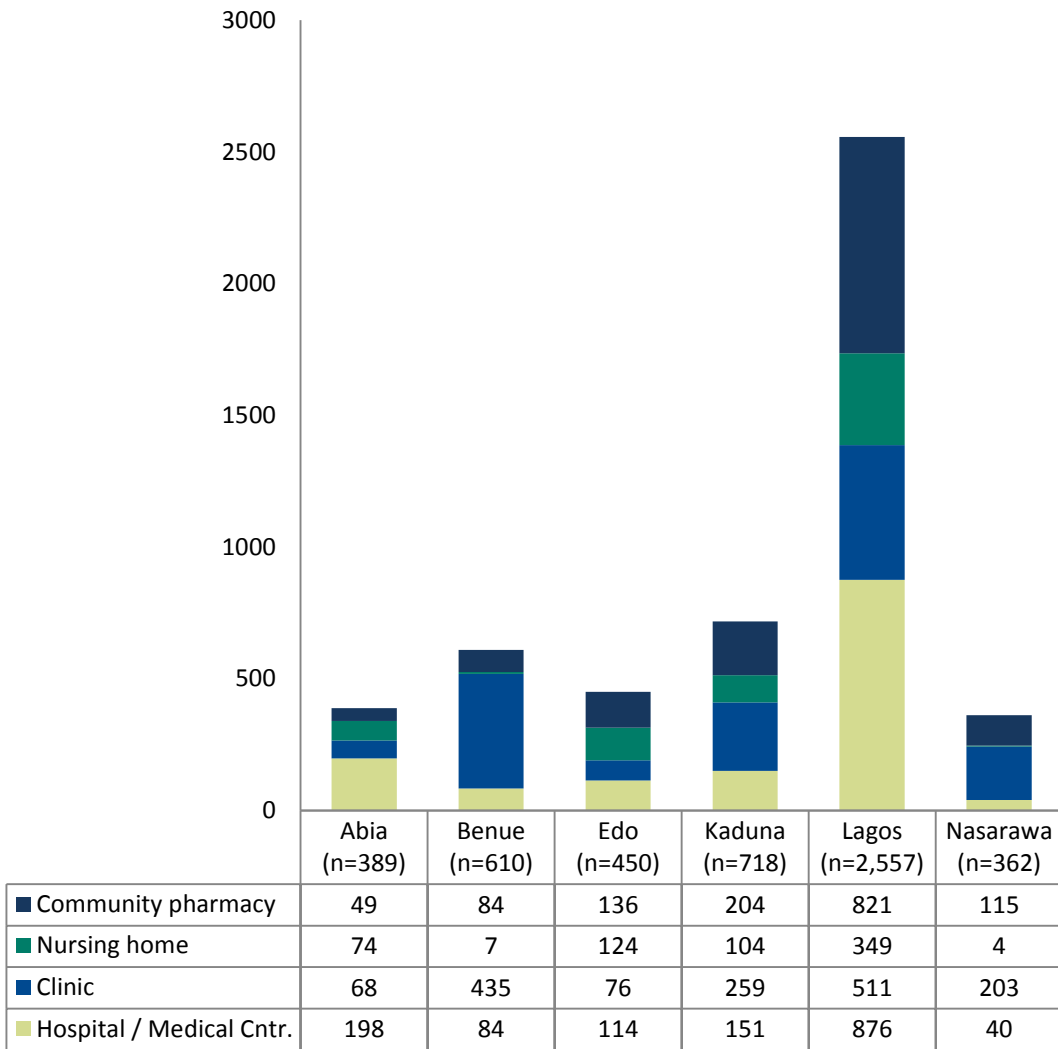
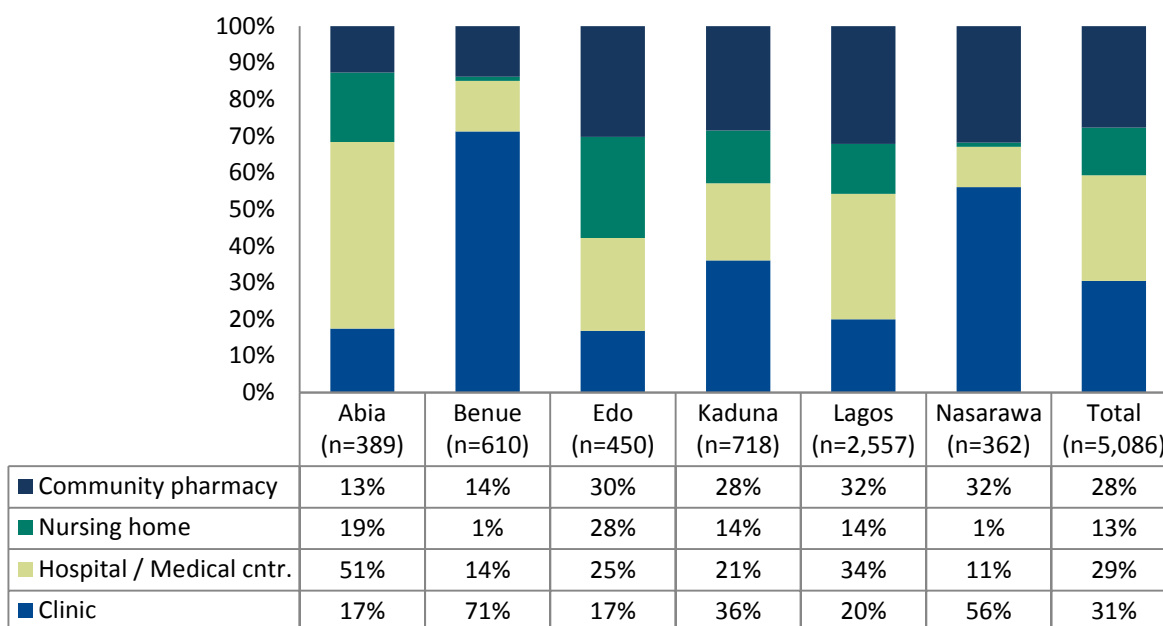


Figure 2 shows the distribution of facility types in each state and overall. Of the 5,086 private facilities that SHOPS identified, 31 percent were clinics, 29 percent were hospitals/medical centers, 28 percent were community pharmacies, and 13 percent were nursing homes. The distribution of facility types varied by state.

FIGURE 2: COMPOSITION OF PRIVATE FACILITIES BY STATE



The number of nursing homes in Benue and Nasarawa states was low compared with clinics in these states. It is possible that this reflects miscategorization of the facility types, since there were instances reported wherein the surveyors were not able to verify the claims that the facility was headed by a doctor or a nurse.

3.2. ACCURACY OF OFFICIAL LISTS

Highlights from this section:

Approximately 32 percent of private health facilities were not included in official government lists.

Approximately 53 percent of the private health facilities included in official government lists could not be found by surveyors.

An accurate and comprehensive list of private health facilities is a basic requirement for governments to effectively monitor private health facilities and to track disease prevalence and other health statistics. There are several potential reasons why lists of private sector facilities maintained by the state ministries of health may not be completely accurate. In most cases, state ministries rely on facilities coming forward to register rather than actively seeking out new facilities. Thus, some facilities may avoid registering to avoid paying fees to the state government. According to official rules, staff at the state ministries of health are required to visit each registered private facility on a quarterly basis to verify that the information for the facility is correct. In practice, it is unclear whether state ministries have the capacity to perform regular visits to private sector facilities.

By comparing data from the private facility census with data from the official lists of private health facilities collected prior to the census, we assessed the accuracy of these official lists. Our results showed that while the official lists did contain a majority of the identified private health facilities, there were significant errors of omission and inclusion.

Table 4 shows the accuracy of the official lists by state. Overall, 32 percent of the facilities found during the surveying were not included in the official lists. In addition, 53 percent of those facilities included in the lists could not be found by the surveyors. Official lists appeared to be particularly incomplete in Benue, where 55 percent of facilities found during surveying were not included in official lists, and these lists were particularly error prone in Abia, where 69 percent of facilities included in official lists could not be found by surveyors.

Table 4 likely overestimates the accuracy of the lists as the surveyors may have missed a portion of private health facilities during the surveying. In the last section of this report, we present results from the intensive search in Lagos, which revealed that approximately 15 percent of all private health facilities were missed during the initial surveying. When these additional facilities are included, the estimated proportion of facilities in Lagos not included in official lists increases from 51 percent to 57 percent.

TABLE 4: FACILITIES BY LISTED AND LOCATED STATUS

	A	B	C	D	E	F
State	# Facilities in Official Lists	# Facilities in Official Lists Found	# Facilities Not on Lists Found	Total # Facilities Found (B+C)	% of Facilities on Lists Found (B/A)	% Facilities Found Which Were on List (B/D)
Abia	781	243	146	389	31%	62%
Benue	526	202	248	450	38%	45%
Edo	856	471	247	718	55%	66%
Kaduna	648	265	97	362	41%	73%
Lagos	4,076	1,992	790	2782	49%	72%
Nasarawa	833	420	190	610	50%	69%
Overall	7,720	3,593	1,718	5,311	47%	68%

In Lagos, the official lists obtained from the State Ministry of Health and NHIS included, for most facilities, data on the facility type. Thus, for Lagos, we were able to compare the accuracy of official lists by facility type (Table 5). Errors of inclusion, or instances in which the facility was included in the list but does not exist, were highest for clinics, while errors of exclusion, or instances in which existing facilities were not included in official lists, were highest for community pharmacies.

TABLE 5: FACILITIES INCLUDED/EXCLUDED IN LISTS IN LAGOS

	A	B	C	D	E	F
Facility Type	# Facilities in Official Lists	# Facilities in Official Lists Found	# Facilities Not on Lists Found	Total # Facilities Found (B+C)	% of Facilities On Lists Found (B/A)	% Facilities Found Which Were on List (B/D)
Clinic	920	407	66	473	44%	86%
Hospital/medical center	1,385	807	136	943	58%	86%
Nursing home	619	410	63	473	66%	87%
Community pharmacy	464	366	525	891	79%	41%
Facility type missing ¹⁸	688	2	0	2	0%	100%
Overall	4,076	1,992	7,90	2,782	49%	72%

¹⁸The official lists did not include data on the facility type for all facilities listed.

3.2.1. ESTIMATED PROPORTION OF FACILITIES MISSED DURING INITIAL MAPPING

In Lagos, a small portion of localities (n=30) were randomly selected for a second, more thorough “intensive search.” In this intensive search, surveyors systematically walked through each street in the selected localities searching for any facilities that were missed during the first round of surveying. (For more information on the intensive search methodology see the methodology section above.)

A total of 107 previously undiscovered facilities were found during the intensive search. For comparison, 440 facilities were found in these same localities during the normal search. Ratio estimates of the proportion of all private health facilities overlooked during the initial mapping along with estimates by facility type are provided in Table 6. Overall, an estimated 15 percent of private health facilities were overlooked during the initial mapping. The proportion of facilities missed appeared to vary significantly by facility type though the confidence intervals of these estimates were quite large.

TABLE 6: ESTIMATED PROPORTION OF FACILITIES MISSED DURING NORMAL SURVEYING

Facility Type	Proportion Total Facilities Overlooked During Initial Mapping ¹⁹	95% Confidence Interval	
		Lower Bound	Upper Bound
All facility types	15%	11%	19%
Clinics	11%	4%	18%
Hospital	5%	0%	11%
Medical center	13%	0%	28%
Nursing home	19%	9%	29%
Community pharmacy	23%	16%	31%
Facility refused to answer	13%	1%	21%

3.2.2. DIFFERENCES BETWEEN FACILITIES FOUND DURING INITIAL MAPPING AND FACILITIES FOUND DURING INTENSIVE SEARCH

Due to the relatively small number of total facilities found during the intensive search, only basic comparisons between the two sets of facilities may be made. Table 7 and Table 8 below display overall comparisons of the facilities found during normal surveying with those found during the intensive search. Across facility types, facilities found during the intensive search reported fewer patients per day and fewer staff than those found during the normal search.

¹⁹ Figures in this column are estimates of the total number of facilities that would be found if an intensive search were conducted in all areas of Lagos divided by all facilities (including both those found during normal surveying and intensive search) in Lagos. The estimates differ slightly from the simple fraction of facilities found during intensive search divided by the total number of facilities in the 30 selected localities as the probability of selecting each locality is taken into account in the estimates.

TABLE 7: MEDIAN NUMBER OF PATIENTS PER DAY BY WHETHER FACILITY FOUND DURING NORMAL SEARCH OR INTENSIVE SEARCH

Facility Type	Found During Normal Surveying	Found During Intensive Search
Clinics	10	5
Hospital	20	15
Medical center	10	5.5
Nursing home	6	3
Community pharmacy	30	30

TABLE 8: AVERAGE NUMBER PROVIDERS BY WHETHER FACILITY FOUND DURING NORMAL SEARCH OR INTENSIVE SEARCH

Facility Type	Found During Normal Surveying	Found During Intensive Search
Clinics	8.0	6.5
Hospital	15.5	11
Medical center	12.4	6.8
Nursing home	6.8	3.8
Community pharmacy	2.5	2.0

3.3. INFRASTRUCTURE, STAFF, AND PATIENT VOLUME

Highlights from this section:

In most states, a large portion of facilities of all types had basic equipment, including a working stethoscope, blood pressure instrument, thermometer, needles, syringes, gloves, and a scale. However, more than 30 percent of nursing homes in Abia and Benue states and clinics in Benue and Nasarawa states did not have access to this basic equipment.

A large proportion (greater than 90 percent in most states) of facilities had access to grid electricity. However, reliability of the grid electricity was low: in all states, fewer than half of all facilities reported having a full 8 hours of grid electricity per day.

Access to piped water was limited. Overall, only 41 percent of facilities had access to piped water. In Benue, only 10 percent of facilities had access to piped water.

The private facilities surveyed in this study employed a total of 42,296 providers combined.

Nearly half, or 46 percent, of the providers were either auxiliary nurses or nurse midwives. After nurses, doctors made up the next largest portion of providers at 16 percent of all providers.

Private facilities saw a median of 10 patients per day with community pharmacies seeing the most number of clients (30) followed by hospitals/medical centers (15), clinics (7), and nursing homes (6).

In this section, we present results on two key inputs to health care—infrastructure and staff—as well as patient volume—a key indicator of total output of health care.

3.3.1. INFRASTRUCTURE

The state of a country's health infrastructure greatly affects the degree to which its citizens have access to essential health services. A well-developed infrastructure enables leaders to effectively prepare for and respond to acute and chronic health issues. Therefore, an assessment of health care providers' grid electricity access, facilities, medical equipment, workforce, and patient flow is an essential tool in guiding future programs and policies in Nigeria.

3.6.3.1 MEDICAL EQUIPMENT

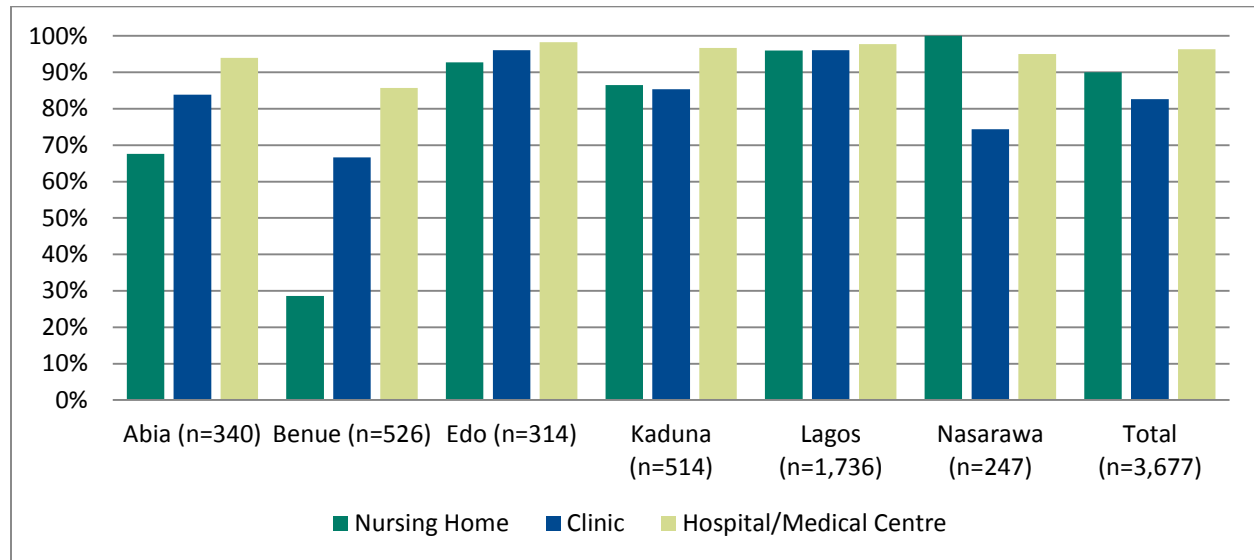
Overall, the majority (89%) of nursing homes, clinics, and hospitals/medical centers had access to all of the following basic medical equipment: a stethoscope, a blood pressure instrument, a thermometer, needles, syringes, gloves, an adult weighing scale, and a drip stand. However, a significant portion (greater than 30%) of nursing homes in Abia and Benue states and clinics in Benue and Nasarawa states did not have access to this basic equipment (Figure 3).²⁰ Nearly all

²⁰ The low figure for nursing homes in Benue may be due to the low number (7) of nursing homes in that state. In Abia, the most common items that these facilities did not have were adult scales, thermometers, and drip stands.

equipment was reported as being in working condition, although this was not verified by surveyors.

Other items such as sterilizers, refrigerators, centrifuges, and x-ray machines were less common, particularly outside of Lagos.

FIGURE 3: AVAILABILITY OF BASIC EQUIPMENT*, BY STATE AND FACILITY TYPE

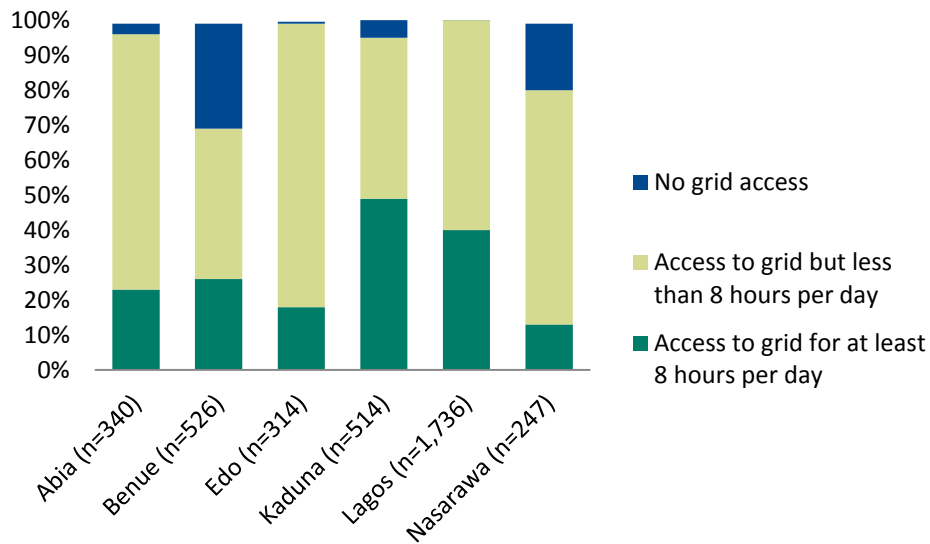


* Note: Availability of basic equipment is defined as having a stethoscope, a blood pressure instrument, a thermometer, needles, syringes, gloves, an adult weighing scale, and a drip stand

3.6.3.1 ELECTRICITY AND WATER

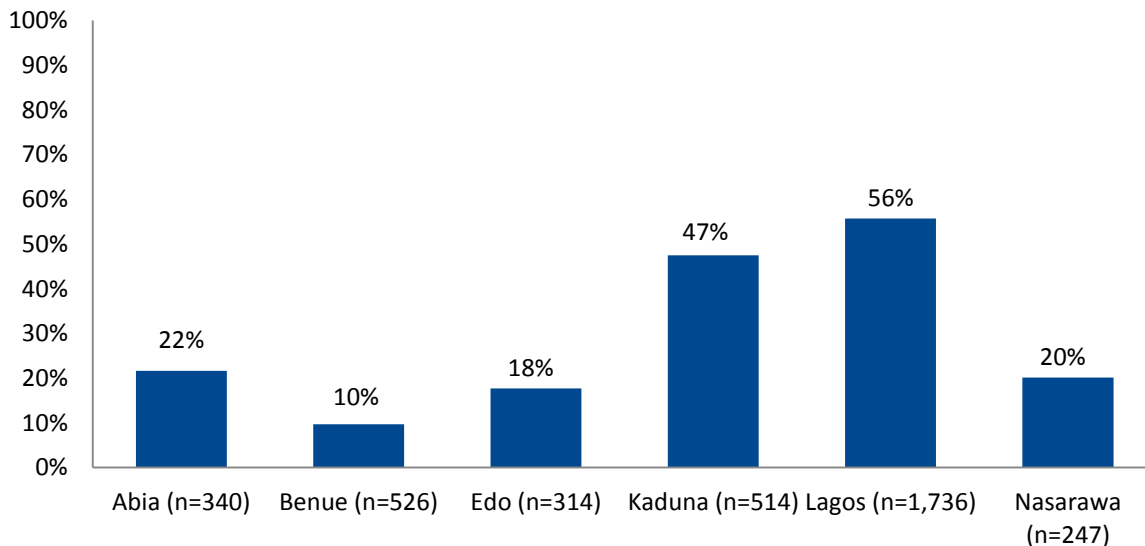
In most states, a large portion of facilities reported having access to grid electricity. In only two states, Benue and Nasawara, did fewer than 90 percent of facilities have access to grid electricity, with 70-percent and 81-percent access, respectively (Figure 4). However, access to the grid does not translate into reliable access to electricity. A large proportion of facilities reported that they were able to draw electricity from the grid for fewer than eight hours a day on average. Reliability of grid access was particularly poor in Edo and Nasarawa.

FIGURE 4: ACCESS TO ELECTRICITY



Access to piped water was far less prevalent. Overall, slightly more than 40 percent of the facilities across all six states had piped water access (Figure 5).²¹ Although roughly half of the facilities in Lagos and Kaduna had piped water, there was far less access in other states, such as Benue, where fewer than 10 percent of facilities had piped water access.

FIGURE 5: ACCESS TO PIPED WATER



²¹ A facility with access to a bore-hole well is considered to have piped water access.

3.6.3.1 BUILDINGS

In terms of number of rooms, hospitals and medical centers were significantly larger than other types of facilities. Hospitals and medical centers had a median of eight rooms, clinics had five, and nursing homes had four. These figures did not vary substantially by state.

Nearly all (97%) of facilities across all six states (excluding community pharmacies) had at least one inpatient bed. However, it should be noted that some facilities with at least one inpatient bed stated that they did not offer inpatient services, so it is possible that some respondents misunderstood this question (see section on “Other Health Services” below). The median number of total inpatient beds per facility was seven. Hospitals/medical centers had the most beds (11 per hospital), while nursing homes and clinics each had a median of six beds.

The data also revealed that the distinction between clinics and hospitals/medical centers was somewhat blurred. As noted in the methodology section, the primary difference between clinics and hospitals/medical centers is that the former tend to offer more inpatient services. Yet while hospitals and medical centers, on average, had more inpatient beds than clinics, there was significant overlap in the number of inpatient beds between these facility types. Several facilities identified as clinics had more than 10 inpatient beds while several hospitals and medical centers had fewer than five inpatient beds. Thus, the distinction between facilities identified as clinics and facilities identified as hospitals or medical centers should be treated with caution.

3.3.2. STAFF

The private facilities surveyed in this study employed a total of 42,296 providers combined. Nearly half (46%) of providers were either auxiliary nurses or nurse midwives (Figure 6). The second most common type of provider after nurses and nurse midwives was doctors (16%). In the Nigerian context, a nurse is defined as someone who has undergone not less than 3.5 years of formal training and has passed pre-requisite examinations and registered with the Nursing and Midwifery council of Nigeria. A midwife is a person who has undergone 18 months pre- or post-nursing training in the management of pregnancy, labor, and delivery and has passed pre-requisite examinations and registered with the Midwifery Council of Nigeria. A nurse midwife is a person that has undergone both nursing and midwifery trainings. An auxiliary nurse is a person who acts as a health care assistant after informal and on-the-job training in health facilities.

FIGURE 6: DISTRIBUTION OF PROVIDER TYPES

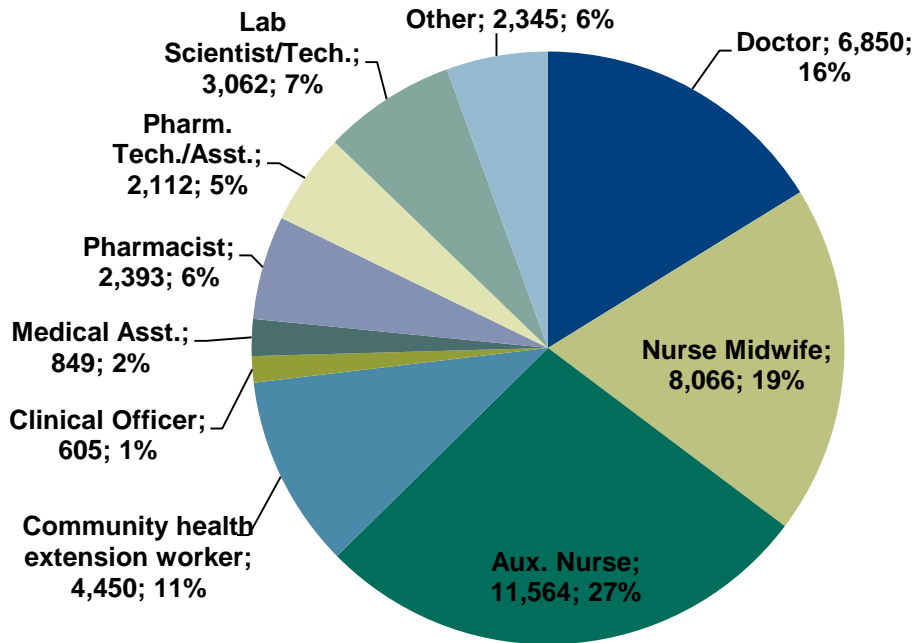


Table 9 displays the average number of providers working at facilities by provider and facility type. Overall, private health facilities in Lagos employed an average of 8.4 providers. Hospitals/medical centers, on average, employed significantly more providers than clinics or nursing homes. Further, hospitals/medical centers had more doctors and nurses among their staff than did clinics and nursing homes.

TABLE 9: AVERAGE NUMBER OF PROVIDERS WORKING AT EACH FACILITY BY PROVIDER AND FACILITY TYPE FOR ALL SIX STATES

Provider Type (All 6 States)	Clinic (N=1552)	Hospital/Medical Center (N=1463)	Nursing Home (N=662)	Community Pharmacy (N=1409)	All Facilities (N=5086)
Doctor	1.1	3.1	0.9	0.0	1.4
Nurse Midwife	1.1	3.6	1.5	0.1	1.6
Auxiliary Nurses	1.8	4.5	2.8	0.2	2.3
Community health extension worker	1.4	1.2	0.6	0.1	0.9
Clinical Officer	0.2	0.2	0.1	0.0	0.1
Medical Assistant	0.2	0.3	0.1	0.0	0.2
Pharmacist	0.1	0.3	0.0	1.3	0.5
Pharmacy Technician/Asst.	0.1	0.6	0.1	0.7	0.4
Lab scientist/Technician	0.6	1.4	0.2	0.0	0.6
Other	0.4	0.9	0.3	0.2	0.5
All providers	6.9	16.1	6.6	2.8	8.4

As described in the chapter “Types of Private Health Facilities,” according to Nigerian federal law, nursing homes must have access to a doctor at all times. How “access” is defined varies state by state. In Lagos, for example, a doctor is required to be on site at all nursing homes, while in other states a doctor is only required to be on call. Overall, 67 percent of nursing homes reported having a doctor on staff, but the proportion of nursing homes with doctors on staff varied significantly by state (Table 10). In Lagos, 79 percent of nursing homes had a doctor on staff, while in Benue, none of its seven nursing homes had a doctor on staff. In several states, a small but significant percentage of nursing homes did not even have a nurse on staff. Overall, 11 percent of nursing homes had neither a doctor nor nurse on staff.

TABLE 10: PRESENCE OF DOCTOR AND NURSE AT NURSING HOMES BY STATE

	Abia	Benue	Edo	Kaduna	Lagos	Nasarawa	Total
Total # nursing homes (n)	74	7	124	104	349	4	662
Percent with doctor on staff	35%	0%	57%	67%	79%	75%	67%
Percent with nurse on staff	66%	29%	69%	55%	86%	50%	75%
Percent with both doctor and nurse on staff	31%	0%	37%	38%	68%	50%	53%
Percent with neither doctor nor nurse on staff	30%	71%	10%	16%	3%	25%	11%

The presence of doctors was much higher at hospitals/medical centers than at clinics. Across all six states, roughly one-third of clinics had no doctors on staff (Table 11), while only 2 percent of hospitals/medical centers reported having no doctor on staff (Table 12). The presence of doctors at clinics varied by state, from 97 percent in Lagos to only 47 percent in Benue.

TABLE 11: PRESENCE OF DOCTOR AT CLINICS BY STATE

	Abia	Benue	Edo	Kaduna	Lagos	Nasarawa	Total
Total # clinics (n)	68	435	76	259	511	203	1552
Percent with doctor on staff	92%	47%	95%	66%	97%	50%	72%

TABLE 12: PRESENCE OF DOCTOR AT HOSPITALS/MEDICAL CENTERS BY STATE

	Abia	Benue	Edo	Kaduna	Lagos	Nasarawa	Total
Total # hospitals/medical centers (n)	198	84	114	151	876	40	1463
Percent with doctor on staff	96%	89%	99%	98%	99%	98%	98%

3.3.3. PATIENT VOLUME

Across all facilities, a median of 10 total clients were seen per day. As shown in Table 13, community pharmacies served the most clients (a median of 30 per day), followed by hospitals/medical centers (15), clinics (7), and nursing homes (6).

TABLE 13: MEDIAN CLIENTS PER DAY BY FACILITY TYPE

Facility Type	Median
Clinic (n=1552)	7.0
Hospital/Medical Center (n=1463)	15.0
Nursing Home (n=662)	6.0
Community Pharmacy (n=1409)	30.0
All facilities (n=5086)	10.0

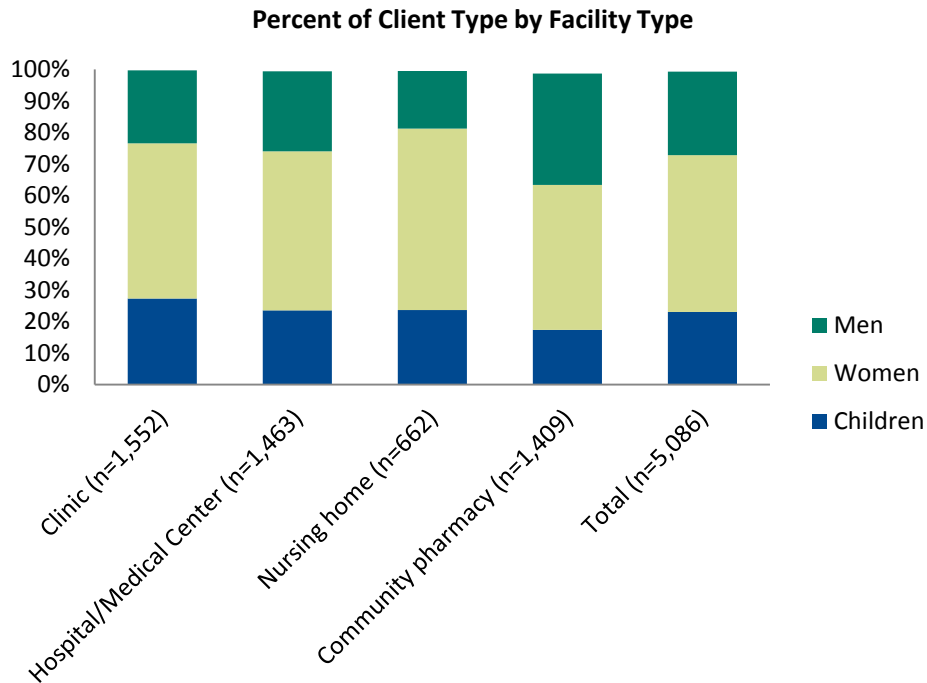
As shown in Table 14, the median number of clients per day (across all private facilities) varied from 8 in Benue to 15 in Lagos, and within each state, the median number of clients was typically highest at community pharmacies and lowest at nursing homes and clinics.

TABLE 14: MEDIAN CLIENTS PER DAY BY STATE AND FACILITY TYPE

Facility Type	Abia	Benue	Edo	Kaduna	Lagos	Nasarawa
Clinic (n=1552)	10	5	10	10	8	8
Hospital/medical center (n=1463)	10	20	15	20	15	20
Nursing Home (n=662)	5	12	5	10	6	12.5
Community Pharmacy (n=1409)	30	30	24	20	35	50
All facilities (n=5086)	10	8	10	14	15	10

Figure 7 shows the proportion of clients who were men, women, and children by facility type. Proportions were calculated by taking the average (not weighted) of the proportions reported at each facility. Overall, by this measure, women made up one-half of all clients visiting private health facilities, and men and children each represented about one-quarter of all clients.

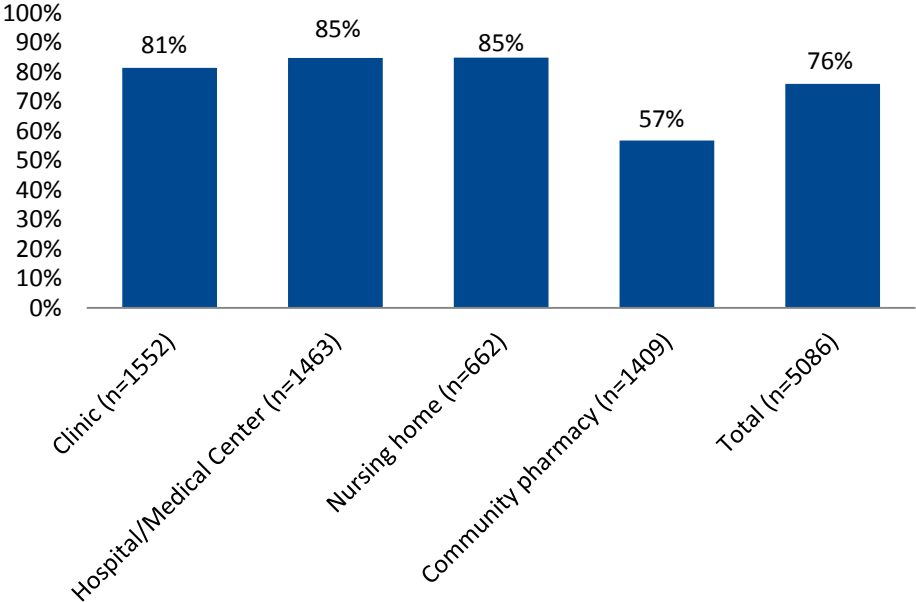
FIGURE 7: PERCENTAGE OF CLIENT TYPE BY FACILITY TYPE



Note: Each facility reported the proportion of all clients that were men, women, and children. Figures for proportion of clients who were men, women, and children were calculated by taking the average of these values.

As shown in Figure 8, some clients paid less than full price (given a discount from normal prices) in 76 percent of all of the surveyed private facilities. Between 80 percent and 85 percent of clinics, nursing homes, and hospitals/medical centers reported charging clients less than full price at least some of the time. A significantly lower share (57%) of community pharmacies reported ever charging less than full price. Among those facilities that gave discounts to some clients, the percentage of clients who were given a discount ranged from 25 percent at community pharmacies to 41 percent in nursing homes. Overall, across all facility types, an average of 39 percent of clients received a discount.

FIGURE 8: PERCENTAGE OF FACILITIES AT WHICH CLIENTS PAY LESS THAN FULL PRICE



3.4. FAMILY PLANNING SERVICES AND PRODUCTS

Highlights from this section:

Approximately 71 percent of private health facilities (excluding community pharmacies) offered at least some family planning service.

The proportion of facilities offering family planning services varied greatly across states (from 55 percent in Lagos to 77 percent in Nasarawa).

The total number of family planning clients at private health facilities was relatively low: the median number of family planning clients per month per facility was 5.

In Lagos, among facilities that did not offer family planning services, the most common reasons cited for not offering family planning services were lack of demand and inadequate knowledge and skills in family planning.

In Lagos, a large proportion (42%) of facilities offering family planning services indicated that they planned to offer additional family planning methods, especially implants, in the future.

In this section, we present data on the availability of family planning services and products in the six states. We distinguish between services and products as facilities may sell an family planning product but not truly offer the family planning service or, alternatively, may offer the service but not sell the product. For example, community pharmacies are allowed to sell injectables but are not allowed to administer the injection to the client (or provide any other family planning services). Alternatively, a clinic may offer implants as a service to the client but request that clients first purchase the implant from a nearby pharmacy since they do not carry stock of the implant. For some methods, especially condoms, there is little difference between offering the service and offering the product but for most methods we have still divided all of the analysis between services and products for the sake of simplicity. The section on family planning services excludes community pharmacies since community pharmacies are restricted from directly providing any family planning service by law.

3.4.1. FAMILY PLANNING SERVICES

Overall, 71 percent of facilities (excluding community pharmacies) offered some family planning services (Table 15). The proportion of facilities offering family planning varied greatly across states.

TABLE 15: PERCENTAGE OF FACILITIES OFFERING FP SERVICES, BY FACILITY TYPE (EXCLUDING COMMUNITY PHARMACIES)

Facility Type	Abia (N=340)	Benue (N=526)	Edo (N=314)	Kaduna (N=514)	Lagos (N=1,736)	Nasarawa (N=247)	Total (N=3,677)
Clinic	51%	54%	72%	82%	54%	66%	63%
Hospital/medical center	65%	63%	79%	81%	63%	86%	80%
Nursing home	40%	43%	75%	78%	43%	72%	70%
All facilities (excluding community pharmacies)	57%	55%	76%	81%	55%	77%	71%

In Lagos, SHOPS asked proprietors of facilities that did not offer family planning services why they did not offer these services. The two most common reasons cited for not offering family planning services were lack of demand (mentioned by 25 percent of facilities) and lack of family planning knowledge or skills (mentioned by 25 percent of facilities) (Table 16). Inadequate financing was mentioned only rarely as a key reason for not offering family planning services. These data also appear to support the strategy of the SHOPS program to increase provider skills in family planning while promoting family planning services in the communities around the providers.

TABLE 16: REASONS FOR NOT OFFERING FP SERVICES AMONG FACILITIES THAT DO NOT OFFER FP (LAGOS ONLY)

Facility type	No demand	Not profitable	Inadequate knowledge/skills in family planning	Cannot obtain the money needed	Planning to offer, but not yet	Other
Clinic (n=164)	29%	2%	21%	0%	20%	29%
Hospital/medical center (n=114)	25%	6%	18%	1%	18%	35%
Nursing home (n=92)	34%	2%	24%	0%	17%	23%
All facilities (n=370)	25%	2%	25%	1%	16%	33%

Private health facilities (excluding community pharmacies) saw a median of 5 family planning clients per month (Table 17). The number of family planning clients varied greatly by state. For example, facilities in Benue provided family planning services to roughly three times as many clients as their counterparts in Edo. Within states, the median number of family planning clients at private sector facilities did not vary widely by facility type.

TABLE 17: MEDIAN NUMBER OF MONTHLY CLIENTS OBTAINING FP SERVICES, BY STATE AND FACILITY TYPE (AT FACILITIES THAT OFFER FAMILY PLANNING SERVICES, EXCLUDING COMMUNITY PHARMACIES)

Facility Type	Abia (N=190)	Benue (N=291)	Edo (N=234)	Kaduna (N=415)	Lagos (N=1,336)	Nasarawa (N=135)	Total (N=2,601)
Clinic	3	9	3	6	5	8	5
Hospital/medical center	5.5	10	5	10	5	10	5
Nursing home	5	15	2	10	5	20	5
All facilities	5	9	3	10	5	10	5

Figure 9 shows the proportion of facilities (excluding community pharmacies) offering each family planning method. Overall, injectables (Depo Provera and Noristerat) were the most widely available method, followed by IUDs. However, these overall figures mask significant differences between the states in the availability of IUDs and Noristerat (Table 18). While 83 percent of facilities in Lagos and 75 percent in Abia offered IUDs, the availability of IUDs at facilities in the other four states was much lower. Availability of Noristerat was relatively high, at more than 60 percent, in all states except Abia, in which only 35 percent of facilities reported offering this method.

FIGURE 9: AVAILABILITY OF FP SERVICES IN ALL PRIVATE FACILITIES EXCEPT COMMUNITY PHARMACIES

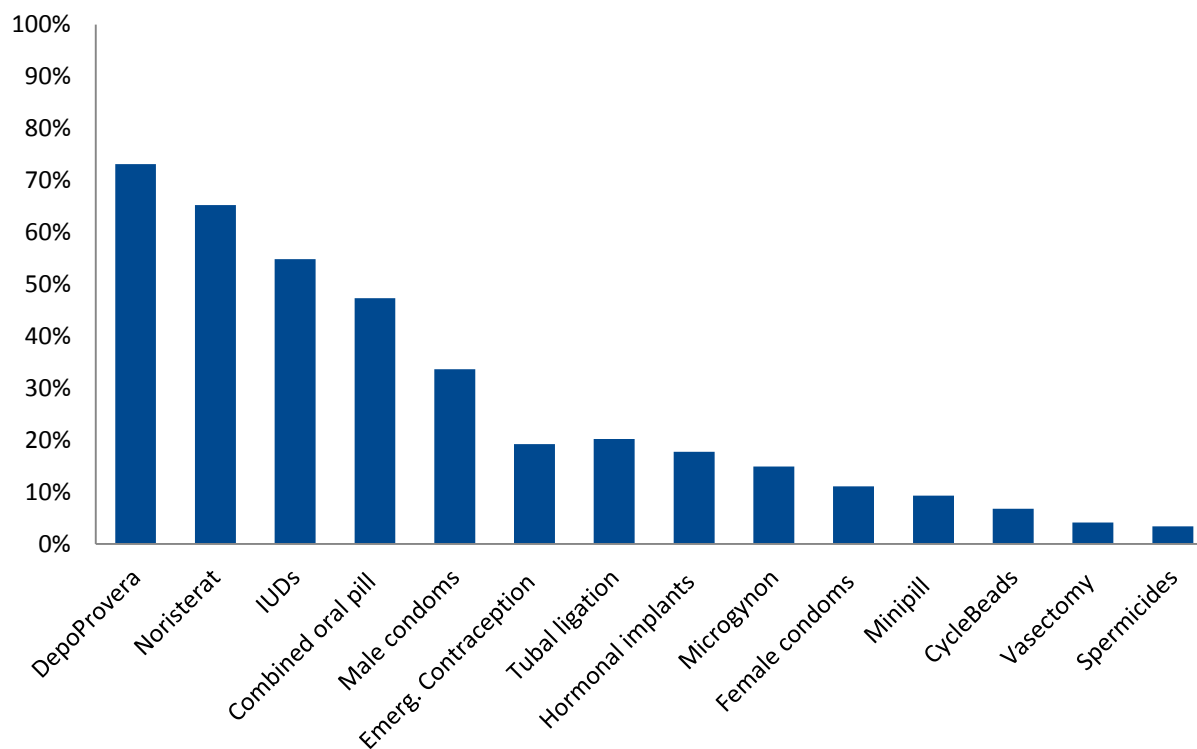


TABLE 18: AVAILABILITY OF FP SERVICES BY STATE (AMONG FACILITIES THAT OFFER FAMILY PLANNING, EXCLUDING COMMUNITY PHARMACIES)

FP Method	Abia (N=190)	Benue (N=291)	Edo (N=234)	Kaduna (N=415)	Lagos (N=1,336)	Nasarawa (N=135)	Total (N=2,601)
Tubal ligation	32%	19%	21%	22%	24%	4%	22%
Vasectomy	14%	7%	18%	6%	13%	3%	11%
Combined oral pill	53%	54%	53%	63%	58%	47%	57%
Microgynon	22%	14%	26%	12%	18%	6%	17%
Minipill	1%	3%	11%	6%	4%	2%	5%
IUDs	75%	18%	48%	36%	83%	22%	61%
Depo Provera	71%	81%	91%	95%	76%	92%	81%
Noristerat	35%	79%	93%	95%	65%	95%	73%
Hormonal implants	16%	20%	26%	23%	22%	16%	22%
Male condoms	41%	59%	40%	30%	38%	27%	39%
Female condoms	6%	15%	16%	7%	17%	5%	14%
Spermicides	3%	10%	11%	3%	3%	1%	4%
Emergency Contraception	24%	21%	22%	19%	27%	13%	24%
Cycle Beads	6%	4%	23%	6%	6%	4%	7%
Other	6%	7%	2%	3%	5%	1%	4%

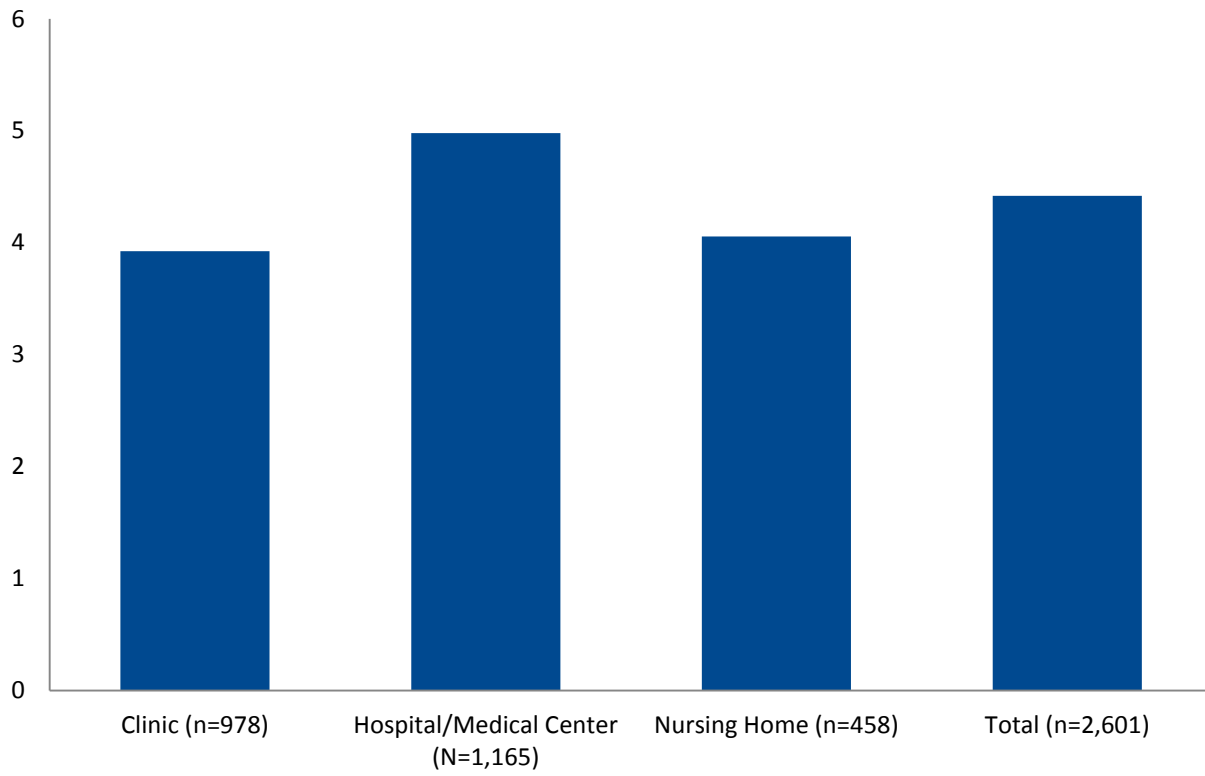
Table 19 show availability of each family planning service by facility type. In hospitals/medical centers, the most commonly available methods were IUDs (80%), Depo Provera (77%), and Noristerat (68%). Among clinics, the most common family planning methods were Depo Provera (84%), Noristerat (76%), and combination oral contraceptive pills (52%). Nursing homes most frequently had Depo Provera (87%), Noristerat (82%), combination oral contraceptive pills (54%), and IUDs (54%).

TABLE 19: AVAILABILITY OF FP SERVICES BY FACILITY TYPE (AMONG FACILITIES THAT OFFER FAMILY PLANNING, EXCLUDING COMMUNITY PHARMACIES)

FP Method	Clinic (N=978)	Hospital/Medical Center (N=1,165)	Nursing Home (N=458)	Total (N=2,601)
Tubal ligation	13%	38%	5%	22%
Vasectomy	7%	15%	9%	11%
Combined oral pill	52%	63%	54%	57%
Microgynon	14%	20%	16%	17%
Minipill	3%	7%	2%	5%
IUDs	42%	80%	54%	61%
Depo Provera	84%	77%	87%	81%
Noristerat	76%	68%	82%	73%
Hormonal implants	15%	29%	15%	22%
Male condoms	40%	40%	32%	39%
Female condoms	11%	15%	15%	14%
Spermicides	5%	5%	2%	4%
Emergency contraception	21%	27%	20%	24%
CycleBeads	6%	9%	7%	7%
Other	4%	4%	5%	4%

As shown in Figure 10, of all the facility types, hospitals/medical centers had the largest average number of family planning services available (4.4). Nursing homes had on average 3.6 methods available, and clinics had 3.3 available.

FIGURE 10: AVERAGE NUMBER OF FP SERVICES OFFERED BY FACILITY TYPE (AMONG FACILITIES THAT OFFER FP SERVICES)



The average number of family planning services in facilities offering family planning varied by state, ranging from 2.6 in Nasarawa to 4.7 in Edo, as shown in Figure 11.

FIGURE 11: AVERAGE NUMBER OF FP SERVICES OFFERED BY STATE (AMONG FACILITIES THAT OFFER FP SERVICES)

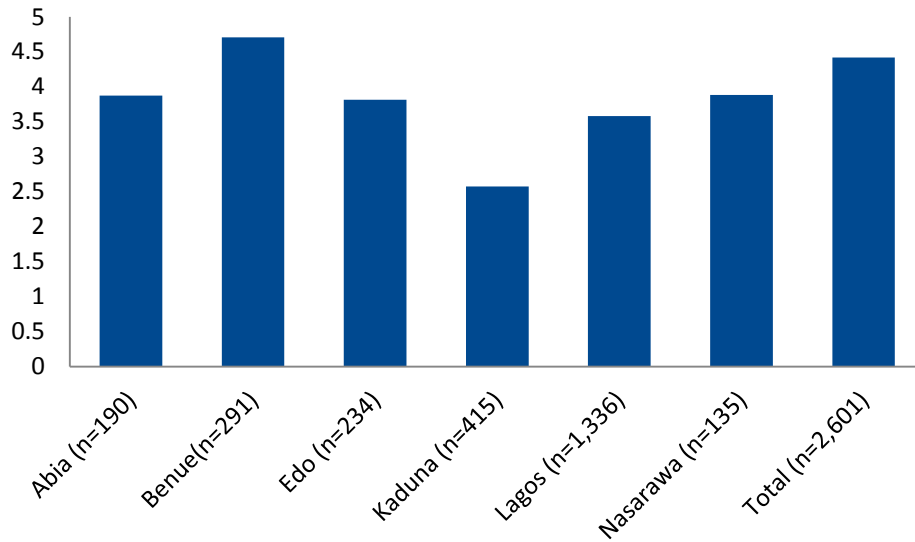


Table 20 displays the median number of total clients in the past 12 months for each family planning service per facility, by state. Interviewers were specifically instructed to ask the respondents to provide them with their best estimate without consulting a register, due to large variations in the quality of record keeping between facilities. Overall, the highest number of family planning clients was for Depo Provera (median of 7 clients in past 12 months), though this varied by state. Following requests for Depo Provera, the injectable Noristerat and IUDs were the services with the second and third most clients overall.

TABLE 20: MEDIAN NUMBER OF FP CLIENTS (PAST 12 MONTHS) PER FACILITY BY SERVICE AND STATE (AMONG FACILITIES THAT OFFER FP SERVICES, EXCLUDING COMMUNITY PHARMACIES)²²

Type Of Family Planning Service	Abia (N=190)	Benue (N=291)	Edo (N=234)	Kaduna (N=415)	Lagos (N=1,336)	Nasarawa (N=135)	Total (N=2,601)
Tubal ligation	0	0	0	0	0	0	0
Vasectomy	0	0	0	0	0	0	0
Combined oral pill (e.g., Combi 3)	1.5	0	0	5	1	0	1
Microgynon	0	0	0	0	0	0	0
Minipill (e.g. Microlut)	0	0	0	0	0	0	0
IUD	9.5	0	0	0	5	0	2
Depo Provera	7.5	10	10	20	4	10	7
Noristerat	0	10	10	20	2	20	5
Hormonal implants (e.g., Jadelle, Implanon)	0	0	0	0	0	0	0
Male condoms	0	5	0	0	0	0	0
Female condoms	0	0	0	0	0	0	0
Spermicides	0	0	0	0	0	0	0
Emergency Contraception (e.g., Postinor 2)	0	0	0	0	0	0	0
Cycle Beads	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0

In Lagos, proprietors were asked if they planned to offer any additional family planning services in the next 12 months. Overall, a large share (42%) of facilities planned to offer additional family planning services, ranging from 33 percent of community pharmacies to 56 percent of nursing homes (Table 21).

TABLE 21: FACILITIES THAT PLAN TO INTRODUCE ANY ADDITIONAL FP SERVICES IN THE NEXT 12 MONTHS, BY FACILITY TYPE (LAGOS ONLY)

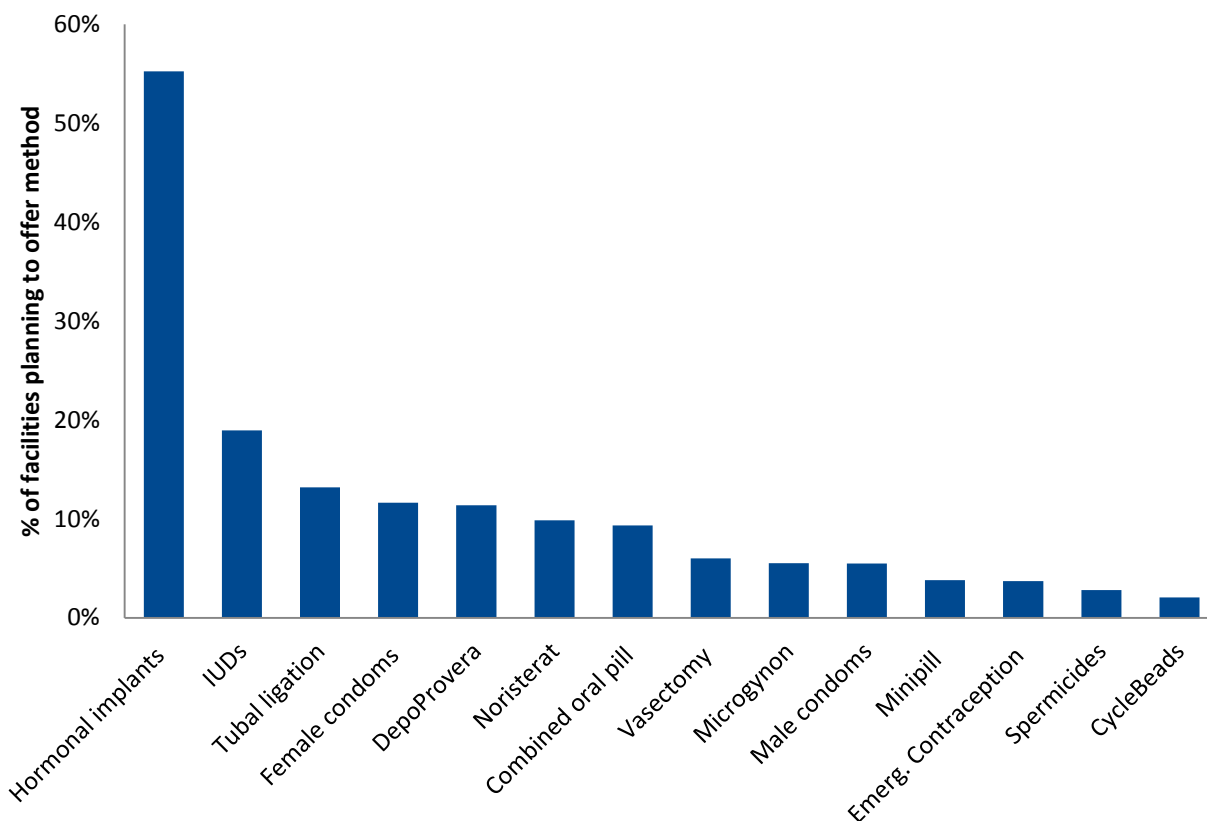
Facility Type	% Planning On Offering Additional FP Services*
Clinic (N=511)	40%
Hospital/medical center (N=876)	44%
Nursing home (N=349)	56%
All facilities (N=1,736)	42%

* All facilities, including facilities not currently offering family planning services, included.

²² Totals do not match totals from Table 17 in some cases. Respondents were asked separately to estimate the total number of family planning patients and the number of family planning patients by service. Table 17 presents results from the first question while Table 20 presents results from the second set of questions.

Figure 12 shows which services those facilities stated that they planned to offer. Over half of these facilities (55%) stated that they planned to offer hormonal implants in the future.

FIGURE 12: AMONG FACILITIES PLANNING TO OFFER ADDITIONAL FP SERVICES, WHICH NEW SERVICES THEY PLAN ON OFFERING (LAGOS ONLY, EXCLUDING COMMUNITY PHARMACISTS, N= 1736)



3.4.2. FAMILY PLANNING PRODUCTS

Surveyors assessed the availability of 11 family planning products at each facility that sells or provides family planning products. (Surveyors also assessed the availability of six pharmaceuticals. For results related to these pharmaceuticals, see next section, “Provision of Pharmaceuticals.”) Surveyors first attempted to confirm the availability of each of the pharmaceuticals by directly observing whether stock of each pharmaceutical was available at the facility. If they were unable to confirm that a pharmaceutical was available through direct observation, surveyors asked the respondent whether the pharmaceutical was in stock and available at the time, typically available but currently out of stock, or not carried at the facility. Results are presented separately for community pharmacies and other facility types in the figures 13 and 14.

Overall, availability of key family planning products, including male condoms, the combined oral pill, and emergency contraception, was relatively high, at more than 80 percent, at community pharmacies. Surprisingly, availability of injectables was also quite high, at nearly 80 percent, at

community pharmacies despite regulations preventing community pharmacists from administering injectables to clients. Availability of microgynon, female condoms, and the minipill was significantly lower, most likely reflecting lower demand for these products. For all products except implants and IUDs, availability is lower at other facility types.

FIGURE 13: STOCKING OF FP PRODUCTS AT COMMUNITY PHARMACIES (N=1,409)

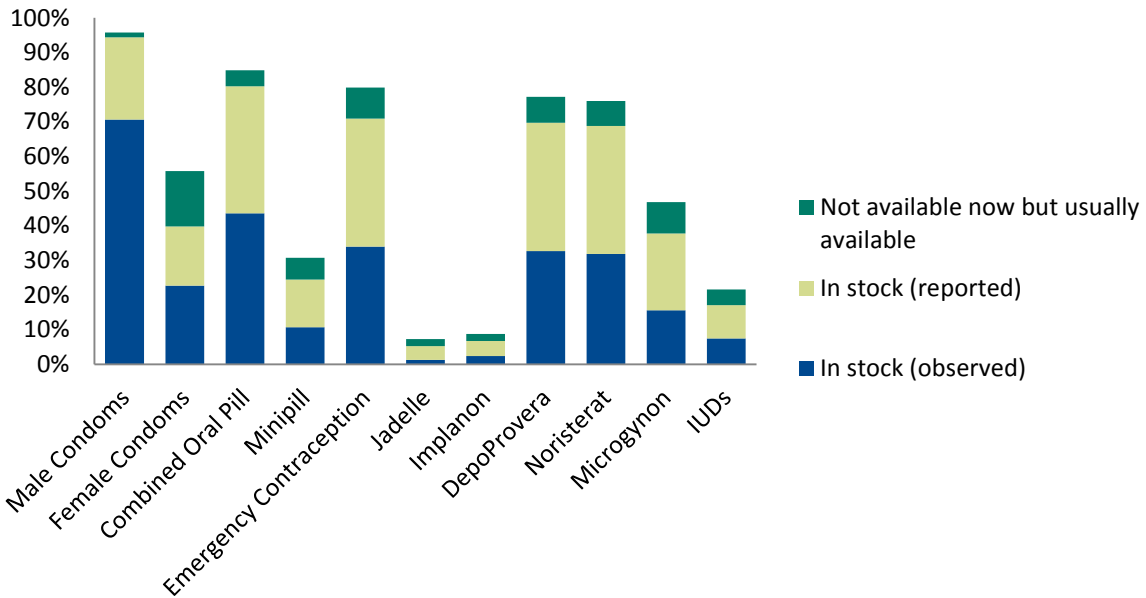
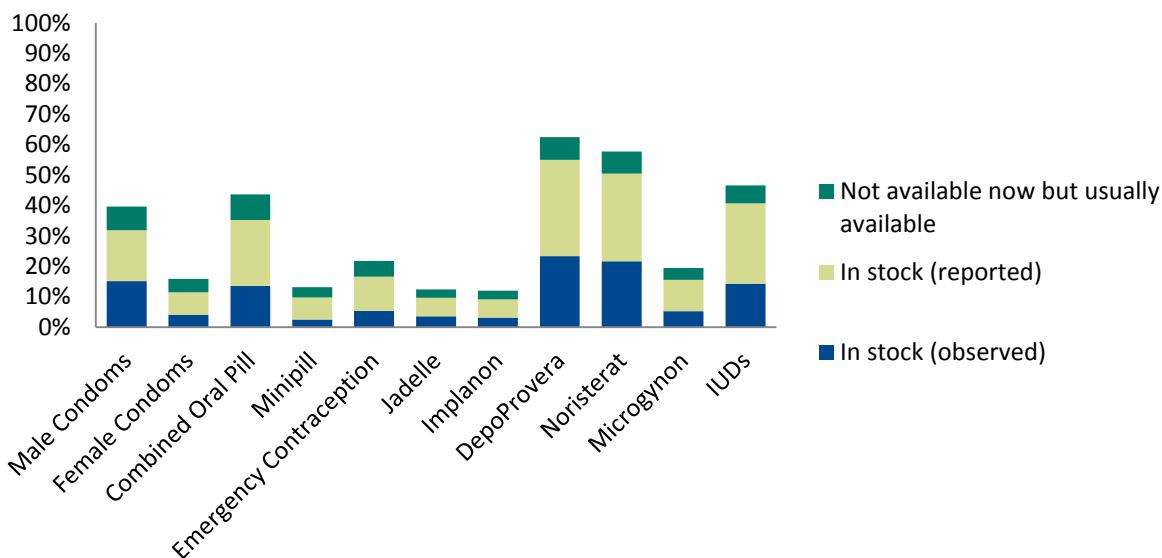


FIGURE 14: STOCKING OF FP PRODUCTS AT CLINICS, HOSPITALS/MEDICAL CENTERS, AND NURSING HOMES (N=3,667)



By far the most commonly reported source for family planning products was “the open market” (83.3%), and this was true for facilities in all states, as shown in Table 22. It should be noted that although facilities may be purchasing Society for Family Health products, they may report that these products are from “the open market” if the products are sold by a distributor.

TABLE 22: SOURCES OF FP PRODUCTS (AMONG FACILITIES THAT OFFER FP SERVICES, EXCLUDING COMMUNITY PHARMACIES)

Source For Procuring FP Products	Abia (N=190)	Benue (N=291)	Edo (N=234)	Kaduna (N=415)	Lagos (N=1,336)	Nasarawa (N=135)	Total (N=2,601)
Government Warehouse	4.2%	1.4%	0.4%	0.5%	1.2%	1.5%	1.3%
Government Clinics	4.7%	3.8%	1.3%	0.5%	3.1%	2.2%	2.7%
Ministry of Health	7.4%	1.7%	2.1%	0.2%	2.1%	1.5%	2.1%
Open Market	71.1%	75.2%	87.2%	95.7%	81.5%	90.3%	83.3%
Society for Family Health	27.4%	16.2%	17.5%	10.8%	15.6%	9.7%	15.6%
Planned Parenthood Federation of Nigeria	4.2%	4.8%	1.3%	1.2%	4.9%	7.5%	4.0%
USAID	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	1.2%
Others	7.9%	6.6%	1.7%	3.6%	2.6%	6.0%	3.7%

Note: Totals exceed 100% as respondents were allowed to provide more than one answer.

3.5. PROVISION OF PHARMACEUTICALS

Highlights from this section:

92 percent of facilities provide pharmaceuticals.

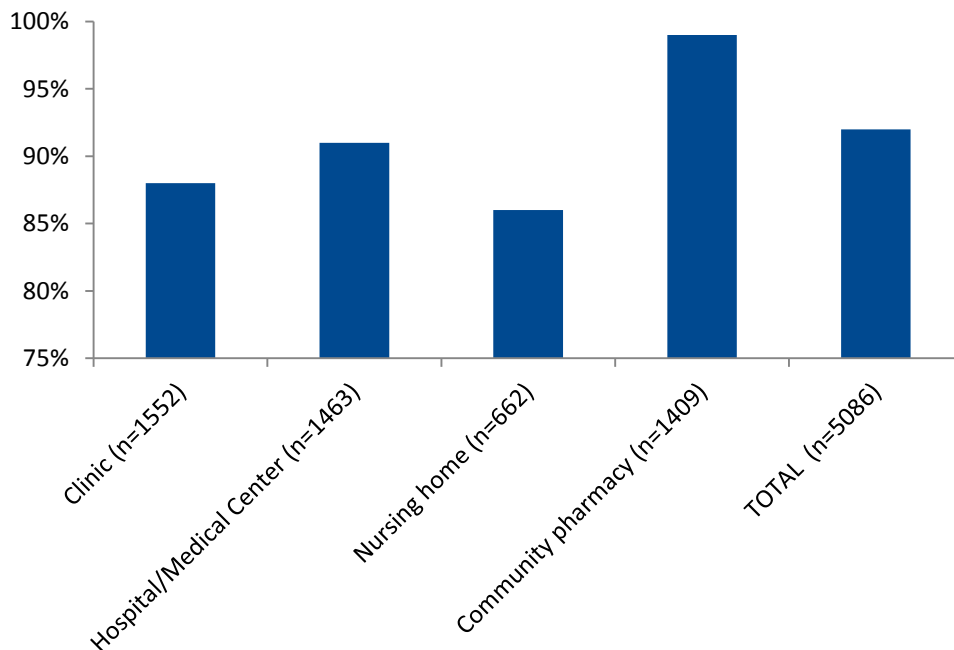
76 percent of facilities were found to comply with basic drug storage practices.

The vast majority of facilities, at 90 percent, indicated that they purchase their supplies of drugs from the open market.

The next section presents results from questions related to the provision of pharmaceuticals, excluding family planning products.

Among all the facilities, 92 percent sell or provide pharmaceuticals. This includes 99 percent of community pharmacies²³, 91 percent of hospitals/medical centers, 86 percent of nursing homes, and 88 percent of clinics (Figure 15).

FIGURE 15: PERCENTAGE OF FACILITIES SELLING/PROVIDING PHARMACEUTICALS



²³ According to the survey data, 15 community pharmacies reported that they did not sell pharmaceuticals (including family planning products). It is unclear if this is surveyor error, the respondent did not understand the question, or, for some reason, the facility does not sell pharmaceuticals.

The percentage of facilities providing pharmaceuticals ranged from 86 percent in Lagos to 99 percent in Nasarawa and Kaduna (Table 23).

TABLE 23: PERCENTAGE OF FACILITIES SELLING/PROVIDING PHARMACEUTICALS, BY STATE AND FACILITY TYPE (ALL FACILITIES)

Facility Type	Abia (N=389)	Benue (N=610)	Edo (N=450)	Kaduna (N=718)	Lagos (N=2,557)	Nasarawa (N=362)	Total (N=5,086)
Clinic	94%	92%	97%	100%	72%	100%	88%
Hospital/medical center	95%	93%	97%	99%	88%	98%	91%
Nursing home	99%	86%	98%	100%	74%	100%	86%
Community pharmacy	100%	100%	100%	100%	98%	99%	99%
Total	96%	93%	98%	99.8%	86%	99%	92%

3.5.1. SOURCE OF PHARMACEUTICALS

Table 24 displays the most common sources from which facilities receive their pharmaceuticals. By far the most frequently mentioned source of pharmaceuticals was “the open market,” mentioned by 90.1 percent of facilities, followed by Society for Family Health, mentioned by 10.6 percent of facilities. (Note: In many cases, facilities may be purchasing Society for Family Health products but may report that they are from “the open market” if the products are sold by a distributor.) The sources most commonly cited in the “other” category were pharmaceutical companies, pharmaceutical company representatives, and wholesalers/distributors.

TABLE 24: SOURCES OF PHARMACEUTICALS AMONG FACILITIES THAT SELL OR PROVIDE PHARMACEUTICALS

Facility Type	Abia (N=369)	Benue (N=566)	Edo (N=435)	Kaduna (N=716)	Lagos (N=2,197)	Nasarawa (N=360)	Total (N=4,643)
Government Warehouse	1.6%	3.2%	0.0%	0.3%	0.7%	0.0%	0.9%
Government Clinics	1.4%	1.6%	0.7%	0.3%	1.6%	0.6%	1.2%
Ministry of Health	4.6%	5.5%	6.4%	2.5%	2.4%	2.5%	3.3%
Open Market	88.9%	80.7%	91.3%	95.8%	90.0%	93.9%	90.1%
Society for Family Health	10.6%	10.2%	10.3%	13.0%	10.1%	10.0%	10.6%
Planned Parenthood Federation of Nigeria	1.6%	1.6%	0.7%	0.6%	2.1%	4.7%	1.9%
Other	15.4%	10.6%	2.8%	2.5%	3.1%	3.6%	4.9%

* Total exceeds 100 percent, as respondents were allowed to provide more than one answer.

3.5.2. STORAGE PRACTICES

At facilities that sell or provide drugs, drug storage practices were observed and recorded by survey enumerators.²⁴ Table 25 displays the percentage of facilities in each state demonstrating each of four types of good storage practices. More than 95 percent of facilities stored drugs off of the floor, protected drugs from water, and protected drugs from sunlight. Drugs were refrigerated on the day of the visit in a smaller proportion of facilities (79% overall). Refrigeration of drugs was least common in Lagos (43%) and Kaduna (61%), two states in which a high proportion of facilities reported having access to grid electricity. The proportion of facilities that demonstrated all four of the good storage practices ranged from 42 percent in Lagos to 88 percent in Benue. Adherence to good storage practices did not vary significantly by facility type (data not shown).

TABLE 25: STORAGE CONDITIONS OF PHARMACEUTICALS

Drug Storage Practice	Abia (N=389)	Benue (N=610)	Edo (N=450)	Kaduna (N=718)	Lagos (N=2,557)	Nasarawa (N=362)	Total (N=5,086)
Drugs are stored off of the floor	97%	96%	100%	99%	98%	95%	97%
Drugs are protected from water	100%	97%	100%	99%	99%	100%	99%
Drugs are protected from sunlight	98%	97%	100%	100%	99%	100%	99%
Refrigeration is available for drug storage* on day of visit	73%	89%	78%	61%	43%	91%	79%
All of the above storage practices	69%	88%	78%	60%	42%	86%	76%

3.5.3. AVAILABILITY OF SELECTED PHARMACEUTICALS

Surveyors assessed the availability of six common pharmaceuticals at each facility that sells or provides pharmaceuticals. (Surveyors also assessed the availability of 11 family planning products. For results related to family planning products. See the previous section.) Surveyors first attempted to confirm the availability of each of the pharmaceuticals by directly observing whether stock of each pharmaceutical was available at the facility. If they were unable to confirm that a pharmaceutical was available through direct observation, they asked the respondent whether the pharmaceutical was in stock and available at the time, typically available but currently out of stock, or not carried at the facility.

According to Nigerian regulations, nursing homes, clinics, and hospitals/medical centers are only allowed to dispense prescription pharmaceuticals to inpatient clients.²⁵ Thus, we have

²⁴ Note that these questions were filled in by the surveyors on their own. No questions were asked to the respondents.

²⁵ These figures differ somewhat from the figures for availability of different family planning products included in the family planning section. For the figures 16 and 17, the denominator is all facilities that provide pharmaceuticals while the denominator for the other figures are all facilities that provide at least one family planning method.

disaggregated the results from these questions by community pharmacies and all other facilities.

Availability of basic pharmaceuticals was relatively high (over 80 percent for all of the pharmaceuticals) and stock outs were relatively rare (5 percent or under for all of the pharmaceuticals) at community pharmacies. Among facilities other than community pharmacies, stock outs were particularly high for artemisinin combination therapy (ACT). Artemisinin monotherapy, which is not only less effective than ACT but also carries public health risks, was available (in stock) at 78 percent of community pharmacies and 63 percent of other facilities.

Availability of zinc was relatively high. Despite the fact that only 5 percent of facilities (excluding community pharmacies) reported typically prescribing zinc for child diarrhea (see results from section “Provision of HIV and AIDS, Maternal and Child Health, and Other Health Services”), zinc was in stock at 48 percent of community pharmacies and 20 percent of other facilities.

FIGURE 16: STOCKING OF SELECT PHARMACEUTICALS AT COMMUNITY PHARMACIES (N=1,409)

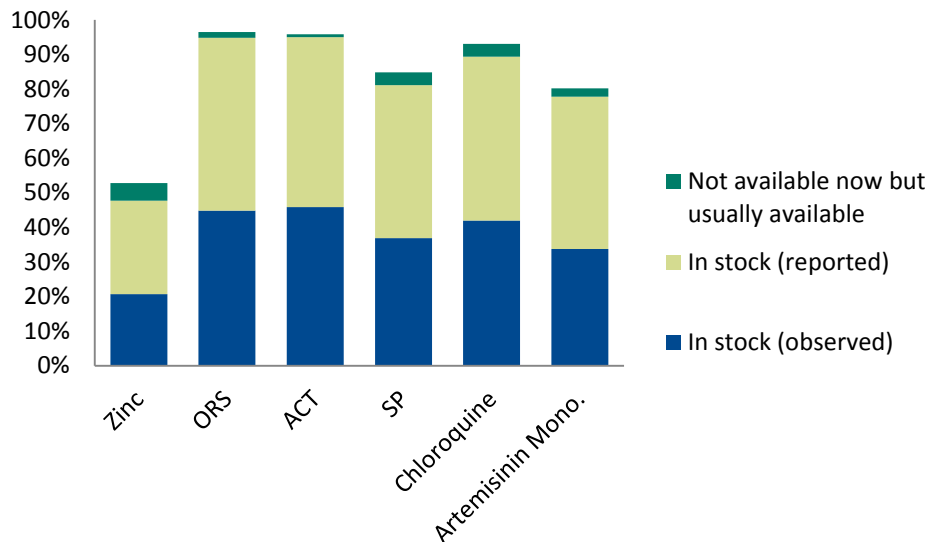
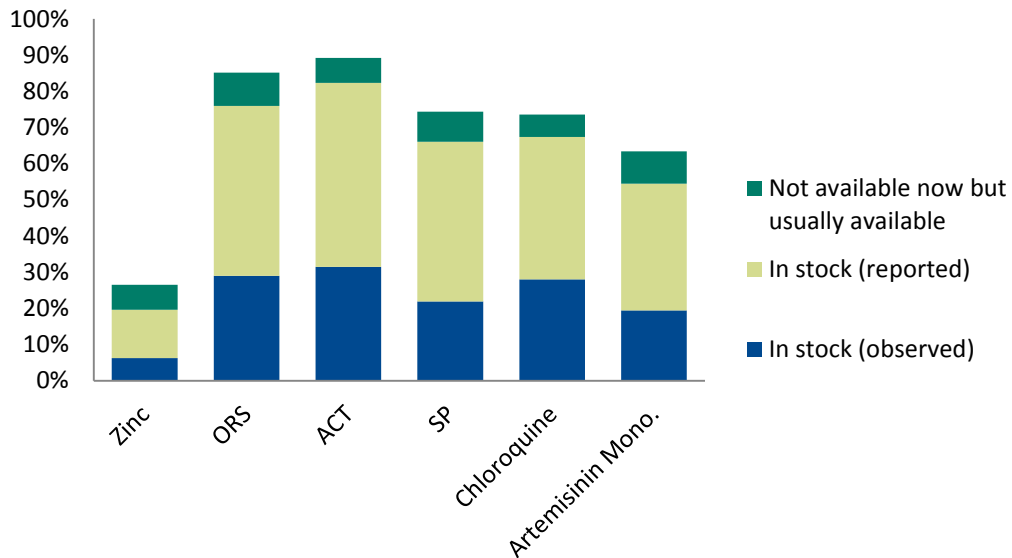


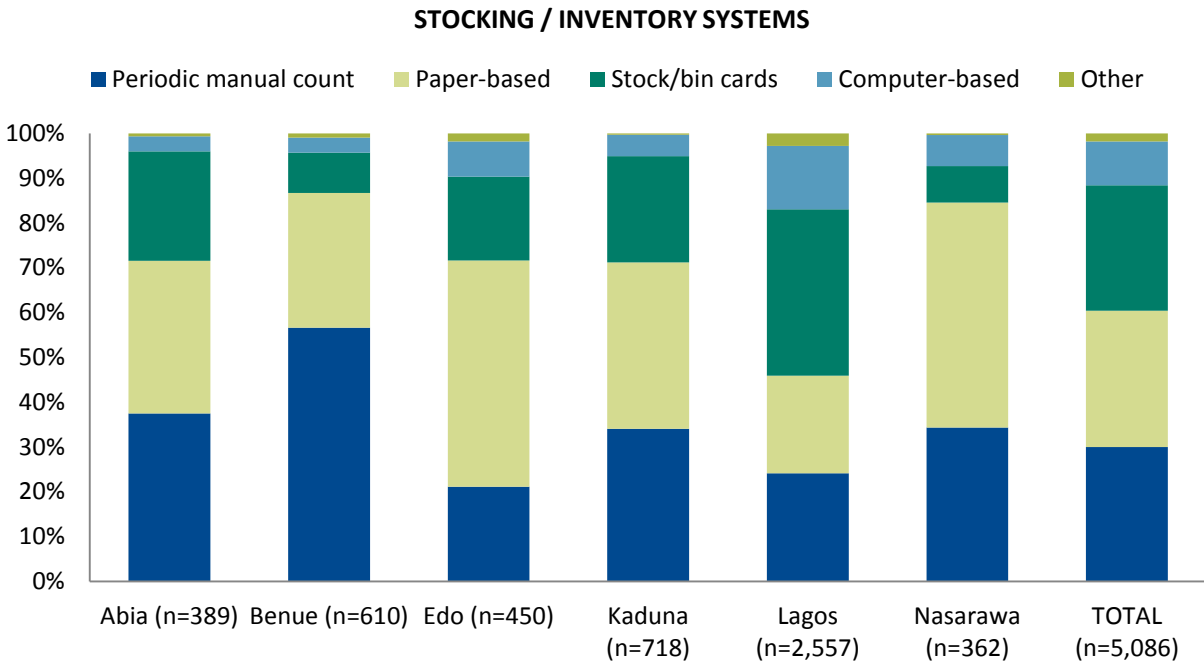
FIGURE 17: STOCKING OF SELECT PHARMACEUTICALS AT CLINICS, HOSPITALS/MEDICAL CENTERS, AND NURSING HOMES (N=3,667)



3.5.4. STOCKING/INVENTORY SYSTEMS

Most facilities, at 84 percent, reported having a system for determining when to order pharmaceuticals. Among these facilities, 30 percent use periodic manual counting, 30 percent use a paper-based system, 28 percent use stock/bin cards, and 10 percent use a computer-based system (Figure 18).

FIGURE 18: SYSTEMS FOR DETERMINING WHEN TO ORDER PHARMACEUTICALS, BY STATE, N=5,086



3.6. QUALITY OF FAMILY PLANNING COUNSELING (LAGOS ONLY)

Highlights from this section:

Providers were generally responsive to the mystery client patient's needs. In line with the patient's profile, providers gave information on long-acting methods (IUDs, injectables, and implants) more than other methods.

Most providers gave information on effectiveness and side effects of any methods they mentioned.

Providers often failed to ask key questions necessary to gauge patient preferences, rule out pregnancy, and check for contraindications.

Although the previous sections provide data on the infrastructure, staff, and other inputs to health care in private health facilities, they do not directly provide any information on the quality of health care provided by private health facilities. In this section, we present data on the quality of family planning counseling at 937 private health facilities in Lagos measured through the use of mystery client surveys.²⁶

3.6.1. TIME SPENT WAITING

Time spent by surveyors waiting to see a provider was, in most cases, reasonably short. At 70 percent of facilities, surveyors waited 10 minutes or less to see a provider. At only 1 percent of facilities did surveyors wait for more than one hour.

3.6.2. WELCOMING CLIENT

A key element of providing any medical advice to a new patient, and especially family planning advice, is establishing a warm and cordial relationship with the client. However, our findings showed that providers did not introduce themselves 83 percent of the time. Overall, this appeared to have little effect on the provider-patient rapport as surveyors reported that the provider made them feel comfortable 88 percent of the time.

3.6.3. QUESTIONS ASKED BY PROVIDERS

Table 26 displays the frequency with which providers asked each of the questions listed in the mystery client survey. As the table shows, providers often failed to ask even basic questions about the client's background or family planning preferences. The third category of questions intended to determine the pregnancy status of the client. According to the Population Council's balanced counseling methodology²⁷, providers should always rule out pregnancy using a set of simple questions prior to discussing specific family planning options as pregnancy is a

²⁶ The 937 facilities were selected based on their inclusion in an ongoing randomized controlled trial of SHOPS training programs. The facilities are not representative of the larger population of facilities in Lagos as a key criterion for selection was that the facilities had received no or little SHOPS training to date.

²⁷ See methods section of report for reference.

contraindication for the use of most options. However, in 32 percent of visits, providers did not ask any of the pregnancy-related questions. The last category of questions includes basic questions intended to rule out any health conditions that may be contraindications for any of the family planning methods. In only 25 percent of cases did providers ask the mystery clients whether they had any major health problems, and the majority did not ask about drug allergies or current medications.

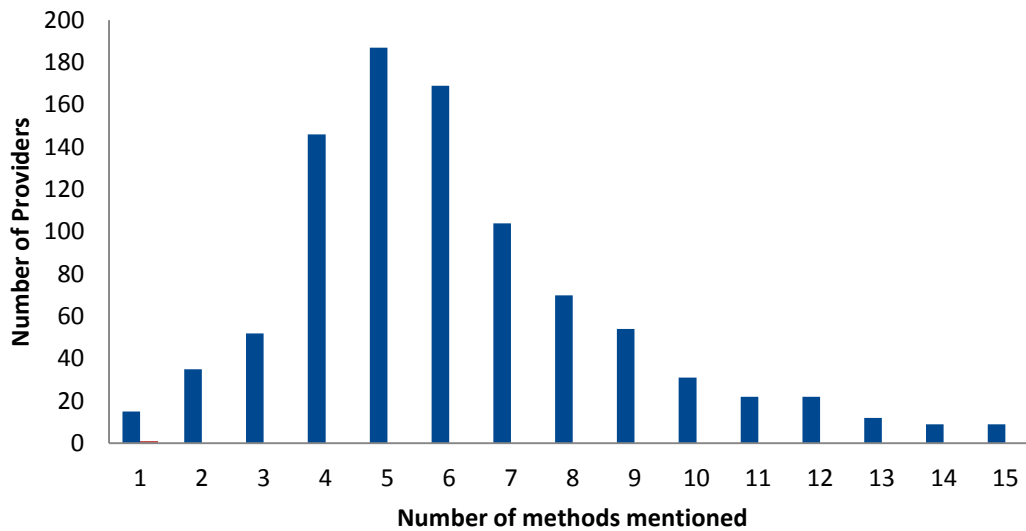
TABLE 26: FREQUENCY VARIOUS QUESTIONS WERE ASKED BY PROVIDERS

Category	Question	Frequency Question Was Asked
Background	Your age?	54%
	Are you married?	57%
	How long have you been married?	6%
	Do you have children?	92%
Ask client her preferences	Do you want to have more children in the future?	77%
	Does your partner support you in family planning?	48%
	Are there any family planning methods that you are currently using or have used before?	53%
	Which family planning method would you prefer?	60%
	Are there any family planning methods which you don't wish to use?	10%
	Are there any family planning methods which your husband/partner doesn't wish to use?	13%
Rule out pregnancy	Are you pregnant?	18%
	When was your last menstrual period?	67%
	Have you had unprotected sex since your last menstrual period?	28%
Check for contra-indications	Do you have any major health problems?	25%
	Are you taking any medications currently or periodically?	9%
	Are you allergic to any drugs?	9%
	Do you have heavy periods?	22%

3.6.4. INFORMATION GIVEN BY PROVIDERS

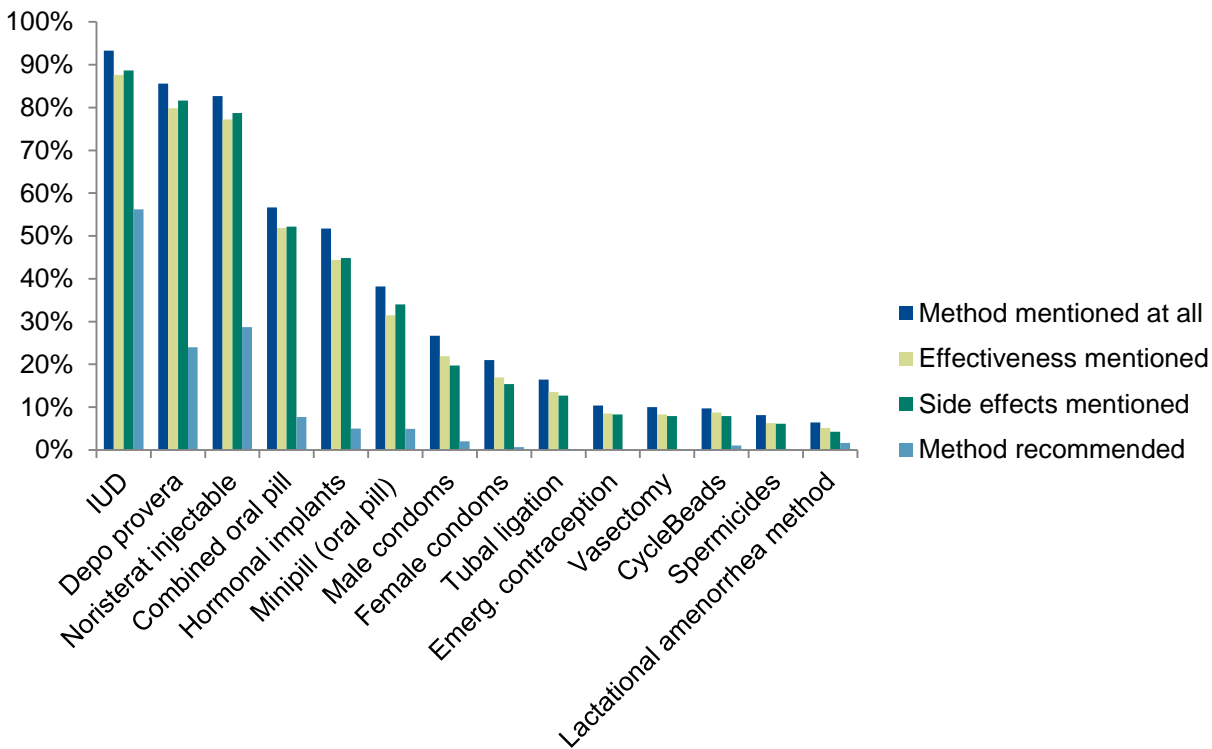
According to the balanced counseling methodology, a common mistake providers make is to provide information on too many methods. Instead, the balanced counseling strategy recommends first asking the client about her preferences and health condition and ruling out any methods the client is not interested in or that are contraindicated. Figure 19 shows the distribution of the number of methods mentioned by each provider. Most (65%) providers mentioned between three and six methods.

FIGURE 19: NUMBER OF METHODS MENTIONED



Despite asking relatively few questions about mystery clients' preferences (as noted above), the information provided by providers appeared to be generally responsive to the mystery clients' needs. As described in the methodology section, mystery client surveyors ranged in age from 28 to 35 and each surveyor told the provider that she had two children and did not want another child for another two to three years. As such, the mystery clients would probably best be served by a long-acting method of contraception. Providers did indeed mention injectables and long-acting methods more frequently than other methods to the mystery clients (Figure 20). Hormonal implants were mentioned much less frequently than either of these other two methods. IUDs were the method that was most frequently recommended to the mystery clients (88%), followed by Depo Provera (86%) and Noristerat (83%). In general, most providers mentioned the effectiveness and side effects for the methods they discussed with the mystery clients.

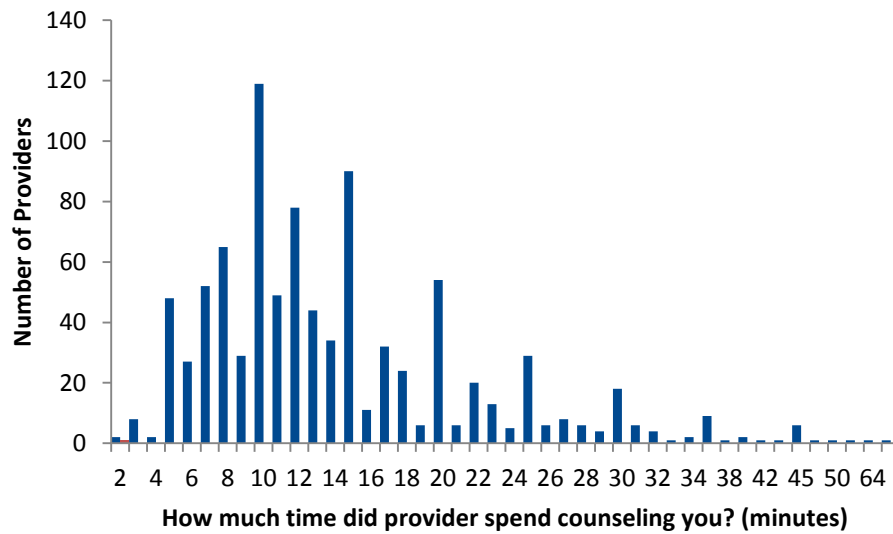
FIGURE 20: FREQUENCY THAT PROVIDERS MENTIONED VARIOUS METHODS



3.6.5. TOTAL TIME SPENT IN COUNSELING SESSION

Overall, providers spent a reasonable amount of time counseling the mystery clients. Average time spent in counseling was 14 minutes and median time was 12 minutes. Approximately 75 percent of providers spent 10 minutes or more with the mystery clients and only 1 percent spent less than 5 minutes (Figure 21).

FIGURE 21: HISTOGRAM OF NUMBER OF MINUTES SPENT IN COUNSELING SESSION



3.6.6. CONSULTATION FEE

Overall, the fees charged to the surveyors were affordable, but in a few cases, these fees were exceptionally high. About half (52%) of the facilities did not charge the mystery clients any fee at all.²⁸ However, as mentioned in the previous section, 20 facilities demanded over 10,000 Naira (US \$63) in fees from the mystery clients²⁹.

²⁸ The providers typically assume that most clients will accept a product or service for which there is a charge and therefore many providers don't have a policy to charge for a consultation in which no products or services are obtained.

²⁹ In many cases, this was an up-front cost to register with the facility as a new patient; future visits would have been at reduced fees.

3.7. PROVISION OF HIV AND AIDS, MATERNAL AND CHILD HEALTH, AND OTHER HEALTH SERVICES

Highlights from this section:

More than 80 percent of clinics, hospitals/medical centers, and nursing homes offered inpatient services.

85% of facilities (excluding community pharmacies) used ACT to treat malaria in children. A significant portion of facilities also used other methods such as chloroquine (27%) and sulfadoxine-pyrimethamine (SP) (7%); another 18 percent of facilities used artemisinin monotherapy, which is less effective than ACT and also carries public health risks.

79 percent of facilities (excluding community pharmacies) reported that they typically prescribe oral rehydration solution (ORS) for child diarrhea, but only 5 percent reported typically prescribing zinc. Antibiotics, which are recommended only in certain cases, and antidiarrheal medication, which is never recommended, are used much more frequently than zinc.

3.7.1. INPATIENT SERVICES

More than 80 percent of facilities offered inpatient services regardless of the facility type or state. Clinics were slightly less likely to report offering inpatient services than other facility types, especially in Lagos, where 84 percent of clinics offer inpatient services, and Nasarawa, where 82 percent of clinics offer inpatient services.

3.7.2. SPECIFIC SERVICES

Table 27 shows the proportion of facilities (excluding community pharmacies) offering different types of health services. Overall, a large portion of facilities reported offering basic services such as antenatal care (ANC), delivery, malaria treatment, malaria prevention, and pediatric treatment. While a substantial portion (64%) of facilities offered HIV counseling and testing, relatively few offered antiretroviral therapy (ART) or post-exposure prophylaxis. Facilities in Lagos tended to offer more services than facilities in other states.

Availability of different health services was roughly similar across states with a few notable exceptions. For example, compared to other states, a relatively low (33%) percentage of facilities in Edo state offered malaria prophylaxis or bed nets. Availability of different health services did not vary greatly by facility type (data not shown).

TABLE 27: PERCENTAGE OF FACILITIES OFFERING SPECIFIC SERVICES (EXCLUDING COMMUNITY PHARMACIES)

Service Type	Abia (N=340)	Benue (N=526)	Edo (N=314)	Kaduna (N=514)	Lagos (N=1,736)	Nasarawa (N=247)	Total (N=3,667)
Immunization	28%	35%	39%	29%	57%	20%	43%
Pediatric consultation and treatment	92%	87%	93%	99%	94%	100%	94%
ANC services	86%	90%	95%	87%	87%	70%	87%
PMTCT	12%	29%	5%	16%	21%	13%	19%
Delivery	87%	96%	95%	91%	87%	79%	89%
Malaria prevention (bednets or prophylaxis) ³⁰	68%	56%	33%	66%	83%	51%	69%
Malaria treatment	98%	96%	96%	99%	98%	98%	98%
Sexually transmitted infection (STI) treatment	56%	58%	41%	46%	43%	43%	47%
Tuberculosis treatment	12%	21%	23%	17%	35%	3%	25%
HIV counseling and testing	49%	79%	60%	56%	65%	63%	64%
Early infant diagnosis for HIV	18%	7%	8%	13%	23%	3%	16%
Post-exposure prophylaxis	65%	78%	64%	84%	75%	56%	74%
Adult ART	10%	14%	5%	7%	10%	4%	9%
Pediatric ART	9%	10%	3%	3%	8%	3%	7%
Home-based care	9%	13%	9%	19%	26%	2%	19%
Palliative care	12%	7%	24%	14%	37%	3%	24%
Acid-fast bacilli (AFB) /sputum test	16%	12%	13%	14%	24%	2%	18%
Lab support	12%	18%	3%	7%	17%	4%	13%

3.7.3. DIAGNOSTIC AND PRESCRIPTIVE PRACTICES FOR THREE COMMON CONDITIONS

For three common conditions—malaria, pediatric pneumonia, and pediatric diarrhea—respondents were asked more detailed questions about the types of tests used to diagnosis the condition and the typical treatment administered.

³⁰ Question was asked for malaria prevention products (bed nets or prophylaxis), not individual products.

3.7.3.1. MALARIA

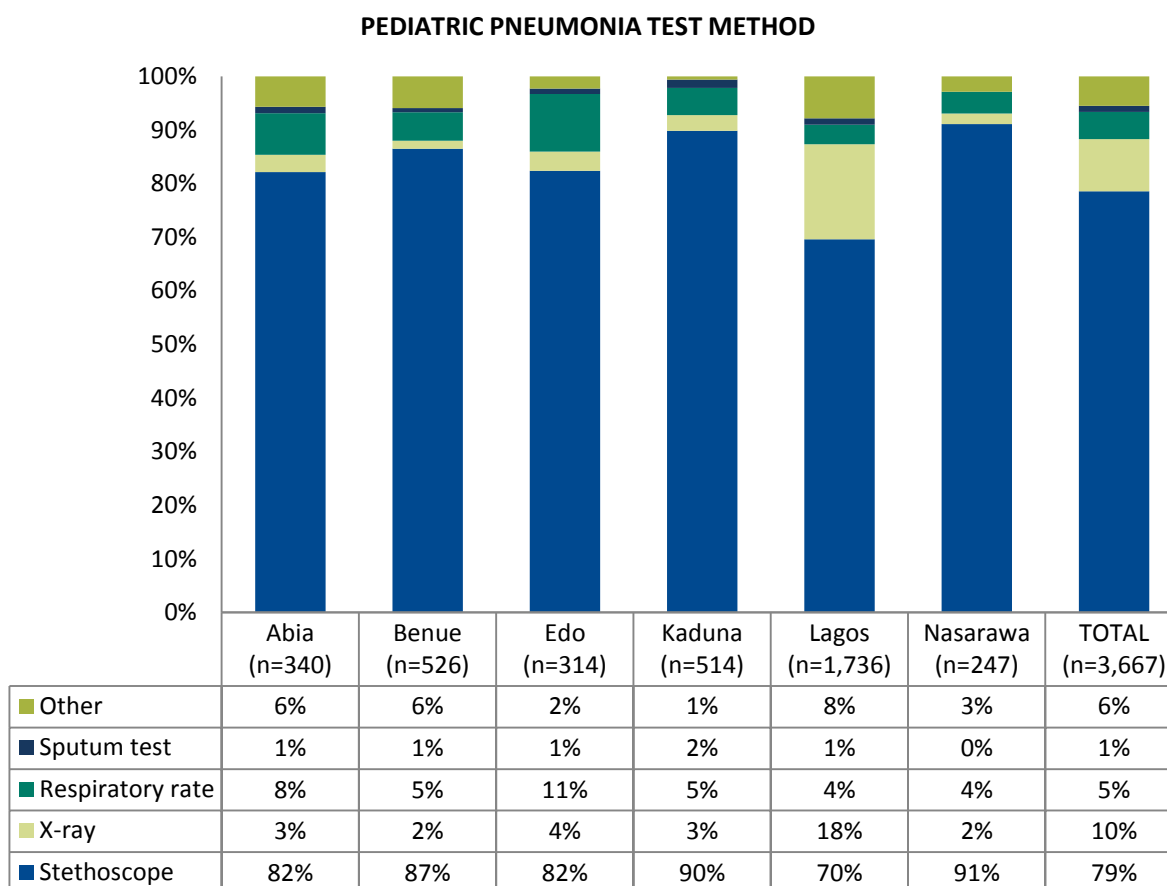
A blood test is the only reliable method for detecting malaria (WHO, 2010). Overall, 75 percent of facilities (excluding community pharmacies) performed blood tests for malaria, as shown in Table 28. Hospitals and medical centers used blood tests to test for malaria much more often than clinics and nursing homes.

TABLE 28: PERCENTAGE OF FACILITIES PERFORMING BLOOD TESTS TO TEST FOR MALARIA, BY FACILITY TYPE (EXCLUDING COMMUNITY PHARMACIES)

Facility Type	Abia (N=340)	Benue (N=526)	Edo (N=314)	Kaduna (N=514)	Lagos (N=1,736)	Nasarawa (N=247)	Total (N=3,667)
Clinic	62%	85%	76%	70%	55%	74%	70%
Hospital/medical center	88%	95%	89%	93%	85%	95%	91%
Nursing home	23%	43%	55%	68%	40%	100%	55%
All facilities	68%	86%	72%	76%	67%	78%	75%

There are two common methods for testing blood samples for malaria: light microscopy and rapid diagnostic tests (RDTs). Both methods have advantages and disadvantages. Among facilities that performed blood tests to test for malaria, 40 percent utilized only a microscope to test blood, 29 percent used a microscope and RDT, 27 percent used only RDT, and 5 percent used “other” methods (Figure 22).

FIGURE 22: AMONG FACILITIES PERFORMING BLOOD TEST FOR MALARIA, METHOD USED



WHO and Nigeria Federal Ministry of Health guidelines recommend the use of ACT for first-line treatment of malaria in young children (WHO, 2010; Nigeria Federal Ministry of Health, 2011). Table 29 shows the proportion of facilities using various treatments for malaria in children under 5. While a large proportion (85%) of facilities stated that they use ACT, a small but significant portion use SP (7%) or chloroquine (27%). Around 18 percent of all facilities use artemisinin monotherapy, which is not only less effective than ACT but also carries significant public health risks. Reported adherence to the WHO-recommended treatment of ACT did not vary greatly across facility type (data not shown).

TABLE 29: TREATMENT OF MALARIA IN CHILDREN, BY TREATMENT AND FACILITY TYPE

Facility Type (All 6 States)	ACT	SP	Chloro-Quine	Arte-Misinin Mono-Therapy	Quinine	Other
Clinic (n=1,548)	79%	6%	34%	20%	1%	7%
Hospital/medical center (n=1,449)	91%	9%	19%	16%	2%	6%
Nursing home (n=656)	83%	6%	28%	15%	1%	10%
All facilities except community pharmacies (n=3,653)	85%	7%	27%	18%	1%	7%

Totals sum to more than 100% as respondents were allowed to provide more than one answer.

According to WHO guidelines, all pregnant women in areas of moderate to high malaria transmission should be provided intermittent preventive treatment of malaria during pregnancy using sulfadoxine pyrimethamine (IPTp-SP) (WHO, 2012). Table 30 shows the proportion of facilities that offer ANC services providing IPTp-SP. While in Lagos, 93 percent of all facilities that offered ANC also offered IPTp-SP across all facility types, in other states the proportion was lower. In particular, a relatively low proportion of nursing homes in Abia, Benue, Edo, and Kaduna offered IPTp-SP.

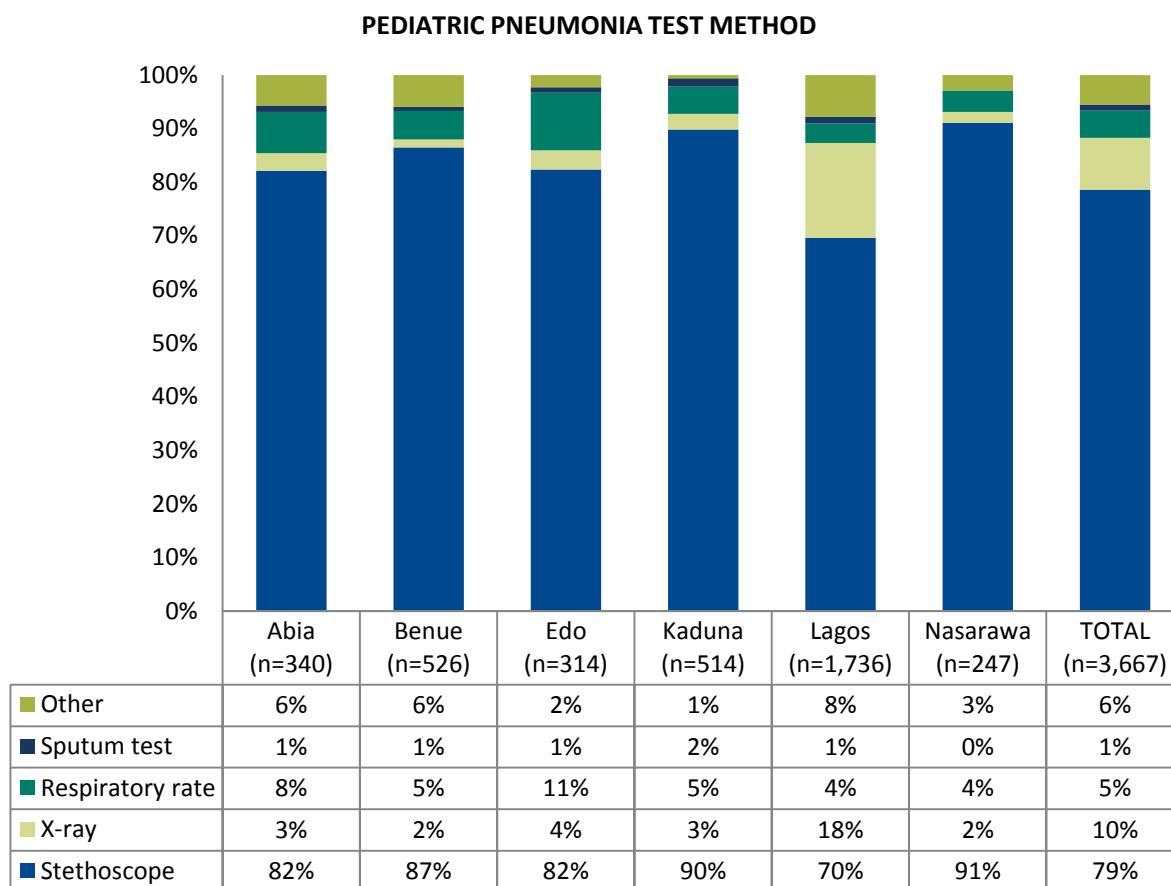
TABLE 30: PERCENTAGE OF FACILITIES PROVIDING INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY USING SP, BY STATE, AMONG FACILITIES PROVIDING ANC

Facility Type	Abia (N=290)	Benue (N=476)	Edo (N=295)	Kaduna (N=444)	Lagos (N=1,495)	Nasarawa (N=173)	Total (N=2,919)
Clinic	81%	67%	69%	83%	90%	85%	79%
Hospital/medical center	86%	84%	80%	91%	95%	97%	91%
Nursing home	66%	57%	63%	70%	93%	100%	79%
All facilities except community pharmacies	80%	69%	70%	82%	93%	88%	84%

3.7.3.2. PEDIATRIC PNEUMONIA

Facilities were asked which method they typically use to determine whether a child under 5 has pneumonia. Figure 23 shows how frequently each method for determining pneumonia was mentioned. The vast majority use a stethoscope (79%).

FIGURE 23: PEDIATRIC PNEUMONIA TESTING METHOD, BY STATE (EXCLUDING COMMUNITY PHARMACIES)



3.7.3.3. PEDIATRIC DIARRHEA

WHO, United Nations International Children’s Fund (UNICEF), and Nigeria Federal Ministry of Health guidelines recommend use of zinc and oral rehydration solution (ORS) for first-line treatment of acute diarrhea in children (WHO and UNICEF, 2004; Federal Ministry of Health, 2012). Table 31 shows the frequency with which different treatments were used for child diarrhea. While ORS was mentioned by 79 percent of facilities, zinc was mentioned by only 5 percent of facilities. Antibiotics, which are recommended only in cases of diarrhea with blood in the stool, and antidiarrheal medication, which is never recommended for pediatric diarrhea, were used much more frequently than zinc. Low use of zinc may be explained by the lack of supply in the country until recently. According to a study by the Clinton Health Access Initiative conducted in 2011, “The market for pediatric zinc is undeveloped. There are only four zinc products on the Nigerian market. None of these products are dispersible, none are manufactured locally and only one meets the WHO-recommended formulation for the treatment of childhood diarrhea.”

TABLE 31: TREATMENT OF DIARRHEA IN CHILDREN BY FACILITY TYPE

Facility Type (For All 6 States)	Antibiotics	Antidiarrheals	Zinc	ORS	Paracetamol	Other
Clinic (n=1,552)	59%	39%	5%	79%	11%	10%
Hospital/Medical Center (n=1463)	60%	29%	8%	86%	5%	10%
Nursing Home (n=662)	58%	35%	6%	81%	8%	10%
All facilities except community pharmacies (n=3677)	59%	39%	5%	79%	11%	10%

3.8. ACCESS TO FINANCE AND BUSINESS PRACTICES (LAGOS ONLY)

Highlights from this section:

Few (9%) facilities had taken out a loan (from any source) in the past 12 months. Borrowing rates were relatively similar across facility types.

Among those facilities that had not taken out a loan in the past 12 months, the most common reasons given were “no need” (mentioned 36 percent of the time) and “interest rates too high” (also mentioned 36 percent of the time). Other reasons such as difficulty of applying were mentioned much less frequently.

Most loans (58%) were from banks.

The most commonly cited reasons for taking out loans were to buy supplies (67% of loans), to purchase equipment (51%), and to improve physical building (50%).

Despite relatively low levels of borrowing in the form of loans, use of trade credit was very high, particularly among community pharmacies, 70 percent of whom said they receive trade credit from at least one supplier.

The vast majority (92%) of proprietors of private facilities in Lagos saw their facility as a business in addition to being a health service provider.

Among facilities in Lagos, 96 percent have a system for recording financial transactions and 66 percent have a system for recording patient numbers. However, 95 percent of proprietors said their systems for record keeping could use improvement.

3.8.1. ACCESS TO FINANCE

Private health facilities, unlike public health facilities, must finance any investment in their facilities through their own funding. As with any small business, borrowing from a bank or other source of loans is one option for financing investment in their facility when the owners do not have access to sufficient internal capital. In Lagos, SHOPS administered a separate questionnaire with detailed questions on recent borrowing to proprietors of private health facilities.

Figure 24 **Error! Reference source not found.** shows the total borrowing status among the facilities. The majority of the facilities noted that they either had a loan or may want one. There was little difference in the average age of facilities by loan status—the average age of a facility with a loan was 11.7 years, the average age of a facility that has no loan but that may want a loan is 10.7 years, and the average age of a facility reporting no loan and no need for a loan is 12.4 years.

FIGURE 24: BORROWING STATUS (N=2,520)

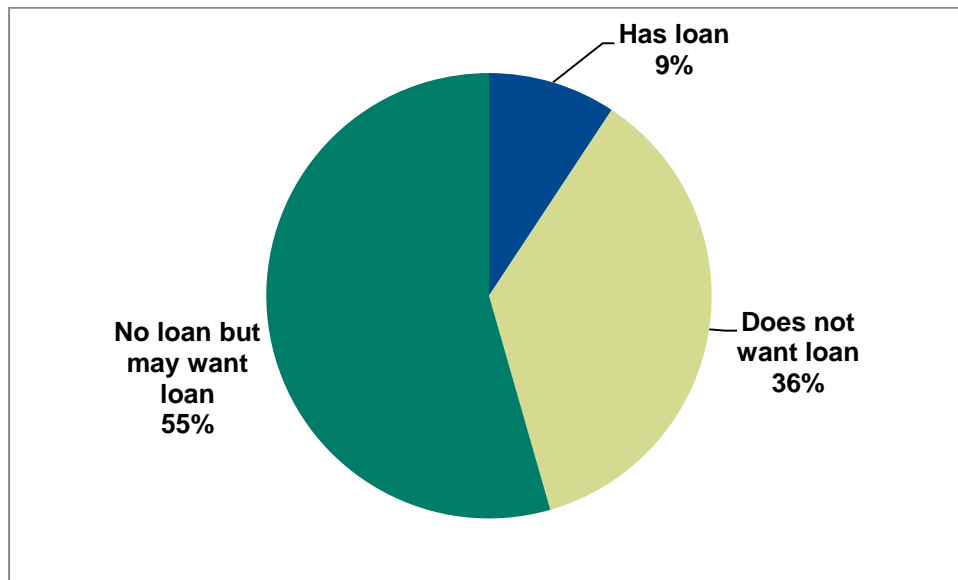
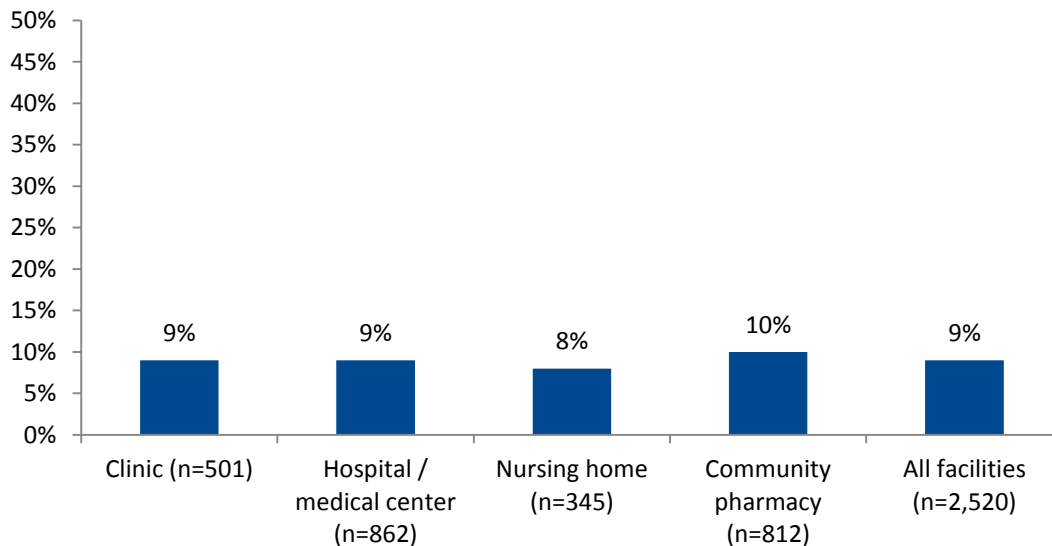


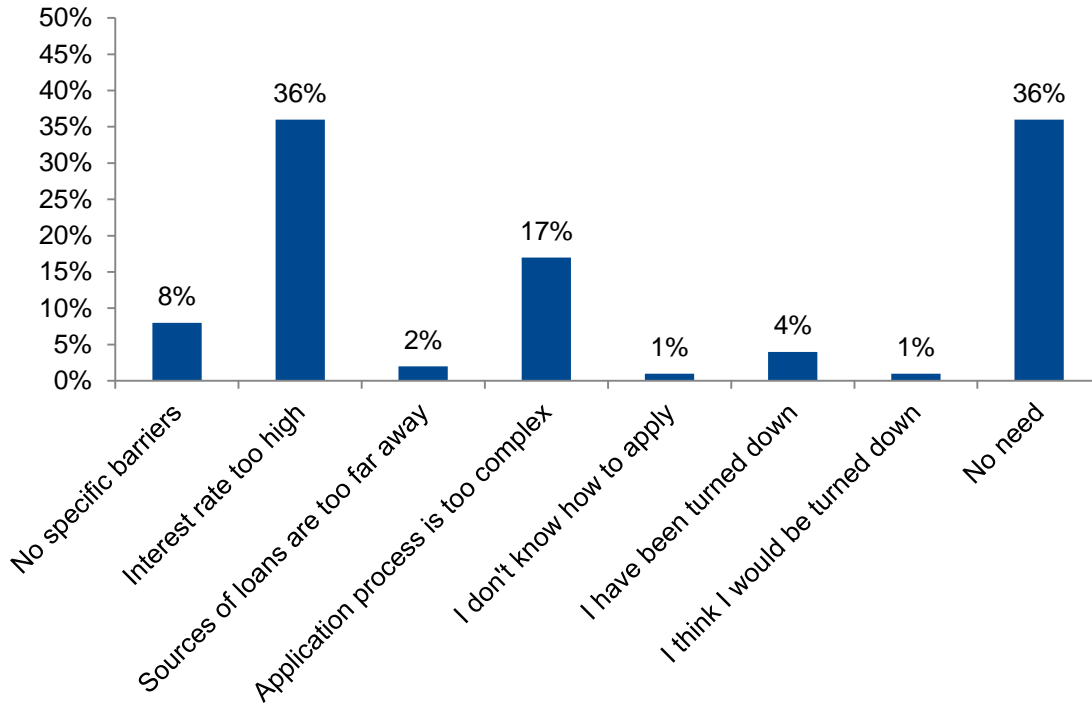
Figure 25 shows the proportion of facilities, by facility type, that had received a loan from any source (including banks, money lenders, contribution/rotating credit fund, friend or family, and gifts that must be repaid) in the 12 months prior to the survey. Only 9 percent of all facilities had taken out a loan in the previous 12 months. Among those facilities that had taken out a loan in the 12 months prior to the survey, 78 percent had taken out only one loan, 17 percent had taken out two loans, and 5 percent had taken out more than two loans.

FIGURE 24: PERCENTAGE OF FACILITIES THAT RECEIVED LOAN IN PAST 12 MONTHS



The 2,286 proprietors who had not received a loan in the prior 12 months were asked why they had not obtained a loan. By far the most commonly cited reasons for not taking out a loan were lack of need (36%) and interest rates too high (36%) (Figure 25).

FIGURE 25: REASONS PROPRIETOR HAS NOT TAKEN LOANS IN PAST 12 MONTHS (N=2,286)



Note: Bars add up to more than 100 percent as proprietors were allowed to mention more than one reason.

Among the 234 facilities that had received a loan, the most commonly cited reasons for obtaining a loan were purchase of supplies (29%), building improvement (22%), and purchase of equipment (22%), as shown in Figure 26. The average loan size was 2,503,309 Naira and the median was 1,000,000 Naira.

FIGURE 26: PURPOSE FOR REQUESTING LOAN (N=234)

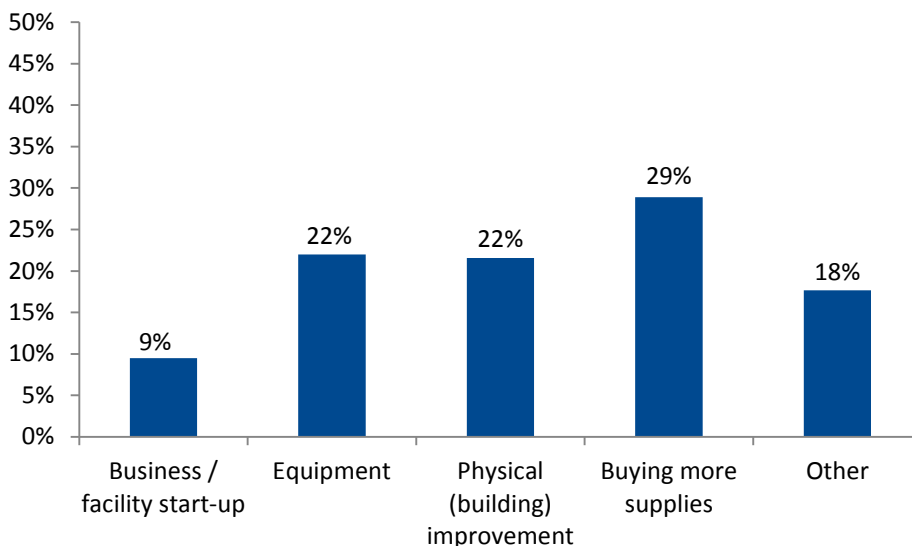
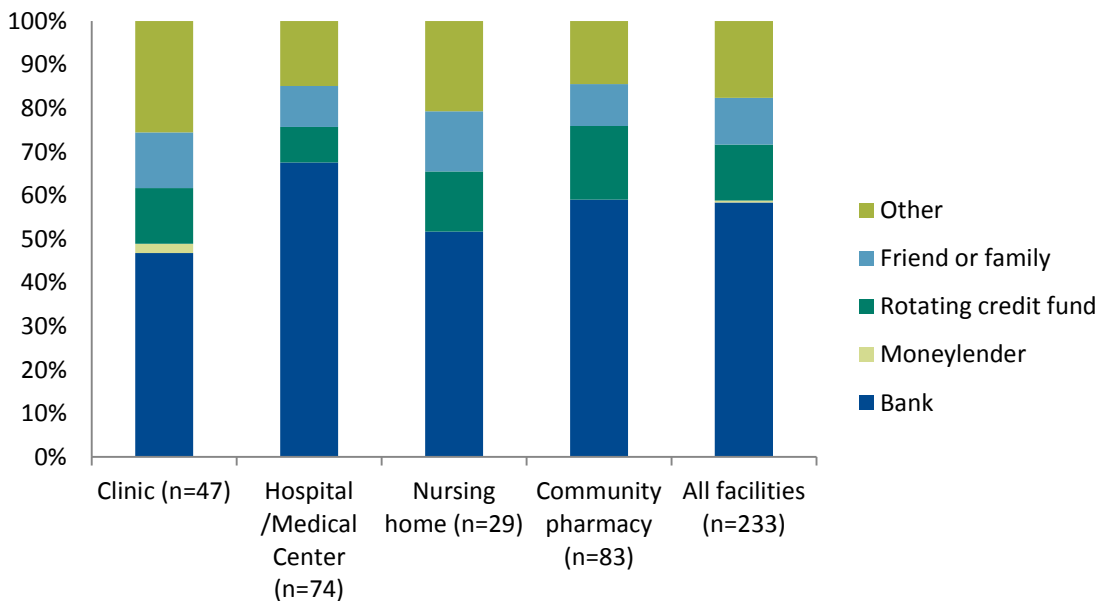


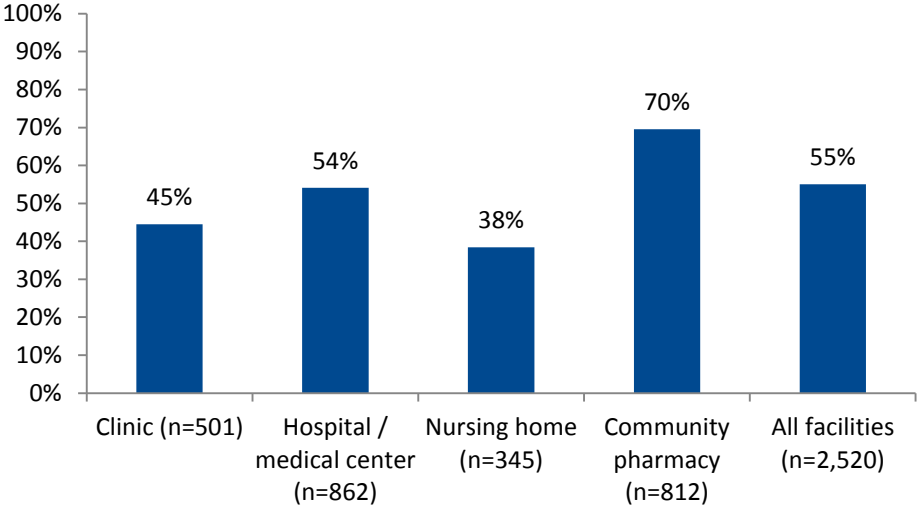
FIGURE 27 shows, for those facilities which had received a loan in the past 12 months, the source of loan by facility type. Overall, by far the most common source of borrowing was banks, with 58 percent of facilities obtaining loans from this source. Hospitals and medical centers appear to borrow from banks more often than other types of facilities though the small sample sizes prevent us from drawing firm conclusions.

FIGURE 27: SOURCE OF LOANS BY FACILITY TYPE



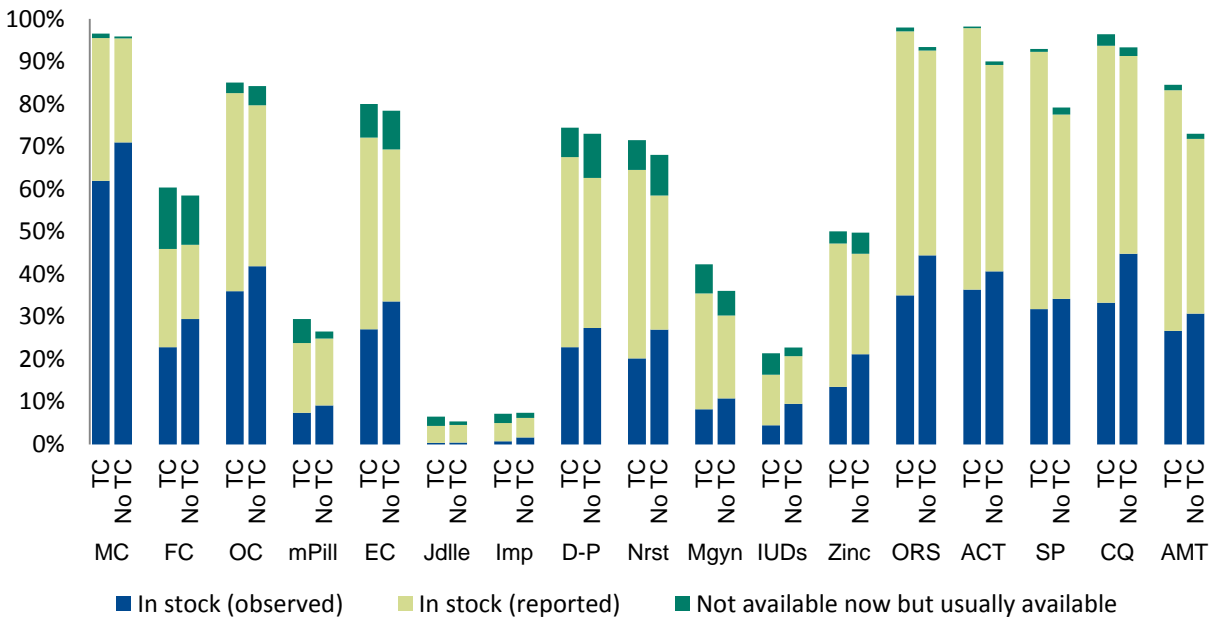
While borrowing was relatively uncommon among private health facilities in Lagos, the use of trade credit—buying products and paying at a later time—was quite common, especially among community pharmacies. The proportion of facilities that reported receiving trade credit from at least one of their suppliers ranged from 38 percent of nursing homes to 70 percent of community pharmacies (Figure 28).

FIGURE 28: FACILITIES THAT RECEIVE TRADE CREDIT FROM SUPPLIERS



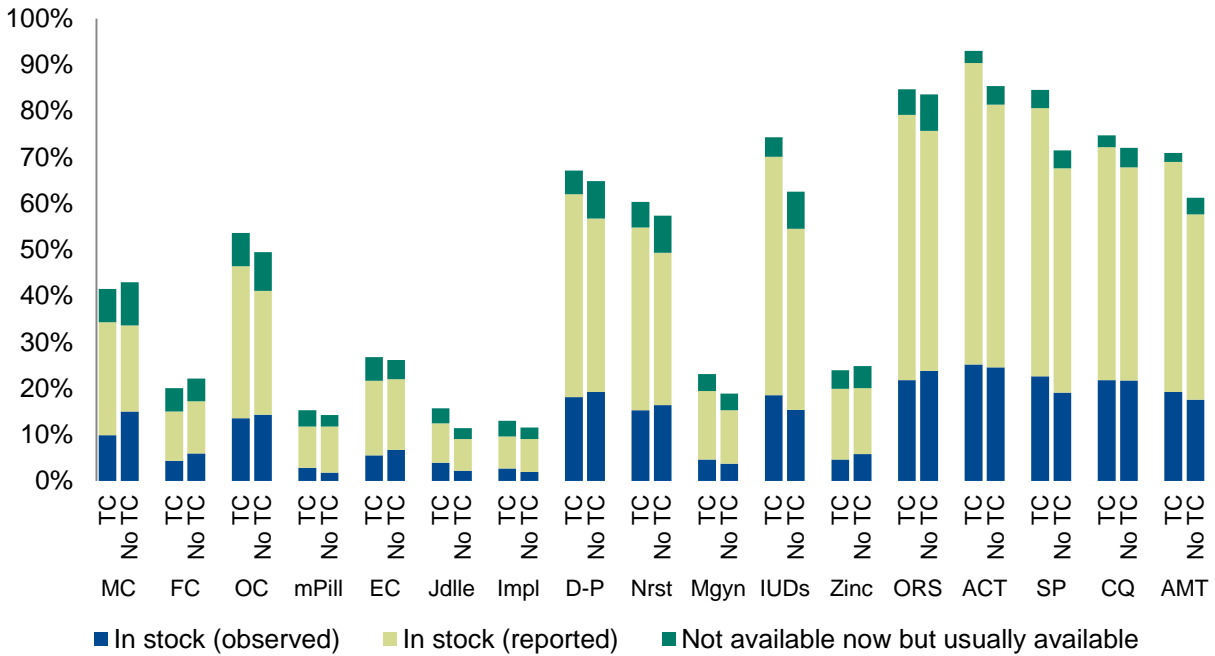
Figures 30 and 31 show the availability of select pharmaceuticals at community pharmacies and other facilities broken up by whether the facility reported availing trade credit (TC). If private health facilities in Lagos were severely credit constrained we would expect to see higher availability of these basic pharmaceuticals and fewer stock outs at facilities with access to trade credit. Instead, the figures show that the availability of pharmaceuticals and the rate of stock outs are roughly the same for facilities with access to trade credit and those without.

FIGURE 29: STOCKING OF SELECT PHARMACEUTICALS* AT COMMUNITY PHARMACIES BY ACCESS TO TC (TRADE CREDIT) (N=1,409)



* Note: “In stock (observed)” indicates that the surveyor was able to observe that the product was in stock. “In stock (reported)” indicates that the respondent reported that the product was in stock but the surveyor did not directly confirm presence of the product. Abbreviations of pharmaceuticals are as follows: MC refers to male condoms, FC refers to female condoms, OC refers to combined oral pill, mPill refers to minipill, EC refers to emergency contraception, Jdlle refers to Jadelle, Imp refers to Implanon, D-P refers to Depo-Provera, Nrst refers to Noristerat, Mgyn refers to Microgynon, CQ refers to chloroquine, AMT refers to artemisinin monotherapy.

FIGURE 30: STOCKING OF SELECT PHARMACEUTICALS* AT CLINICS, HOSPITALS/MEDICAL CENTERS, AND NURSING HOMES BY ACCESS TO TC (TRADE CREDIT) (N=3,667)



* Note: “In stock (observed)” indicates that the surveyor was able to observe that the product was in stock. “In stock (reported)” indicates that the respondent reported that the product was in stock but the surveyor did not directly confirm presence of the product. Abbreviations of pharmaceuticals are as follows: MC refers to male condoms, FC refers to female condoms, OC refers to combined oral pill, mPill refers to minipill, EC refers to emergency contraception, Jdlle refers to Jadelle, Imp refers to Implanon, D-P refers to Depo-Provera, Nrst refers to Noristerat, Mgyn refers to Microgynon, CQ refers to chloroquine, AMT refers to artemisinin monotherapy.

3.8.2. PERCEPTION OF THE FACILITY AS A BUSINESS

The vast majority (92%) of proprietors saw their operation as a business in addition to being a health service provider. When asked about their business management skills over the past year, 85 percent of proprietors thought that their skills had improved, 12 percent thought their skills had stayed the same, and 2.2 percent thought their skills had gotten worse.

3.8.3. FINANCIAL RECORD KEEPING

Nearly all (96%) facilities reported that they record their financial transactions. Figure 31 and Figure 32 show, for those facilities that record financial transactions, the method used and the frequency with which transactions are recorded. By far the most common method facilities used to record financial transactions was paper (78%), though a few facilities reported using a computer system as well (Figure 31). Half of the facilities record each financial transaction as it occurs and 48 percent record financial transactions at the end of the day (Figure 32).

FIGURE 31: SYSTEMS FOR RECORDING FINANCIAL TRANSACTIONS (N=2,527)

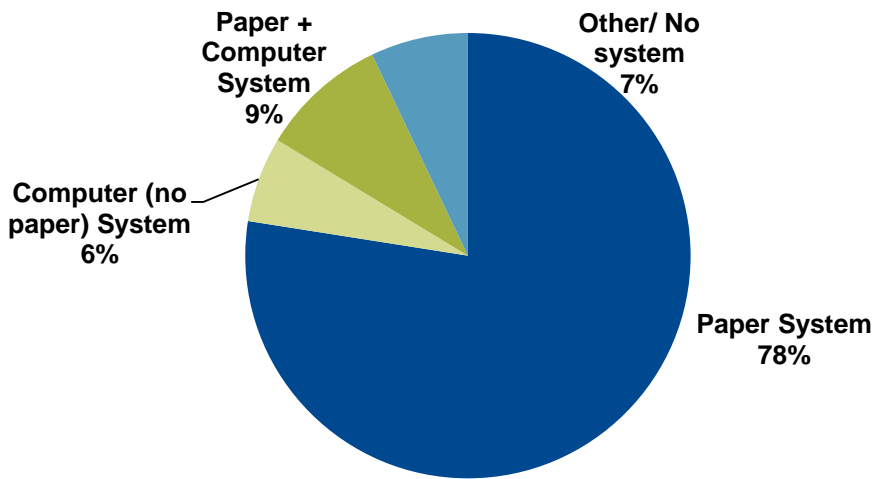


FIGURE 32: FREQUENCY OF FINANCIAL TRANSACTION RECORDING (N=2,527)

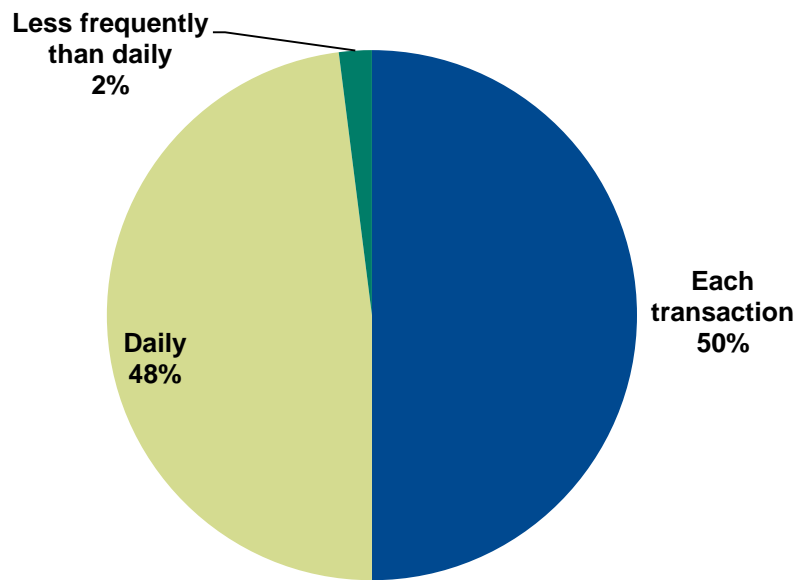
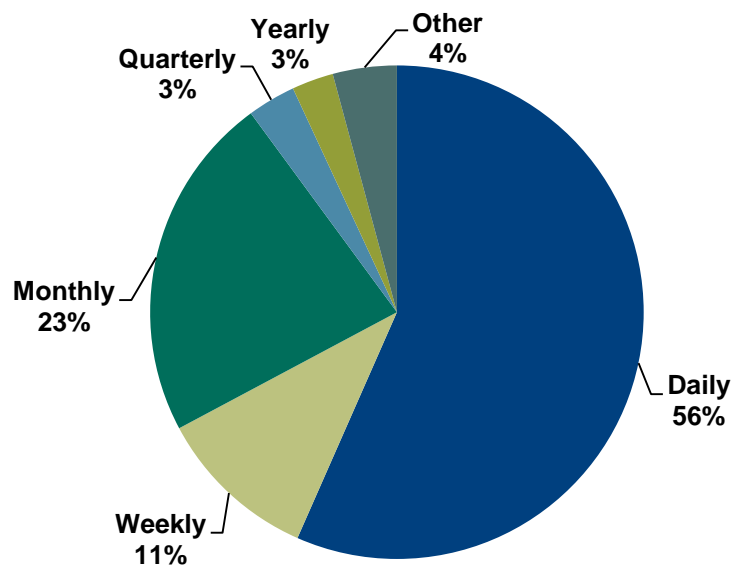


Figure 33 shows the frequency with which private providers reported examining financial records. Slightly more than half, or 56 percent, of facilities reported examining their financial records daily, followed by 23 percent who reported examining their records monthly, and 11 percent who examined them weekly.

FIGURE 33: FREQUENCY OF EXAMINING FINANCIAL RECORDS (N=2,527)



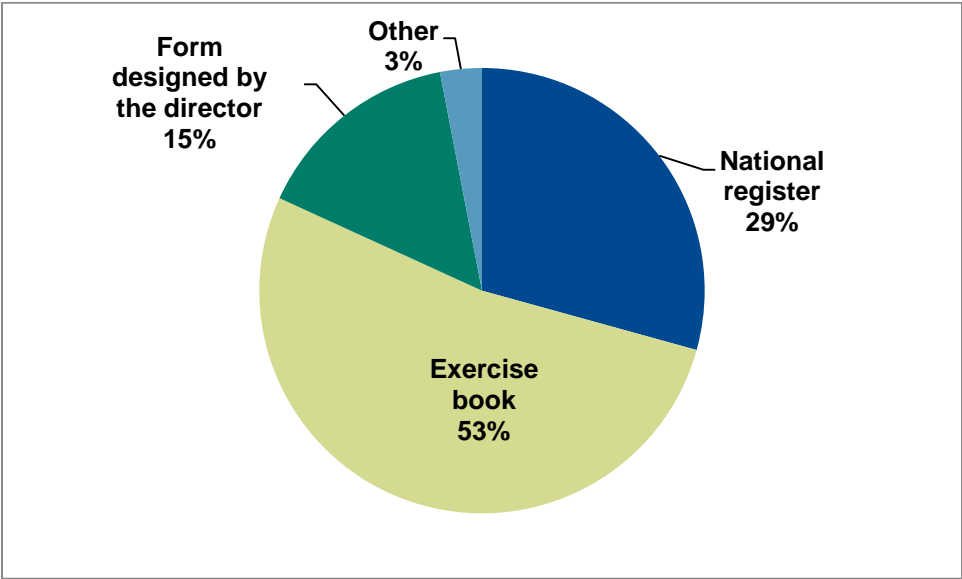
While a large portion of facilities record financial transactions, the accounting systems at the private health systems had some weaknesses. When asked if they had a system of recording that allows the proprietor to know the total revenues and expenses of the facility at any time, 57 percent said that they could see these figures immediately, and 34 percent said that they have a system but some calculations would be needed to know the revenues and expenses. Only 8 percent indicated that they do not have such a system at all. Only 24 percent of facilities had a system for predicting revenues in the coming weeks and months, and of those facilities, 92 percent believed that their system could use improvement.

The vast majority (95%) of proprietors indicated that their record-keeping systems could use improvement, specifically, that their business would be more efficient or profitable with an improved system of record keeping.

3.8.4. PATIENT RECORD KEEPING

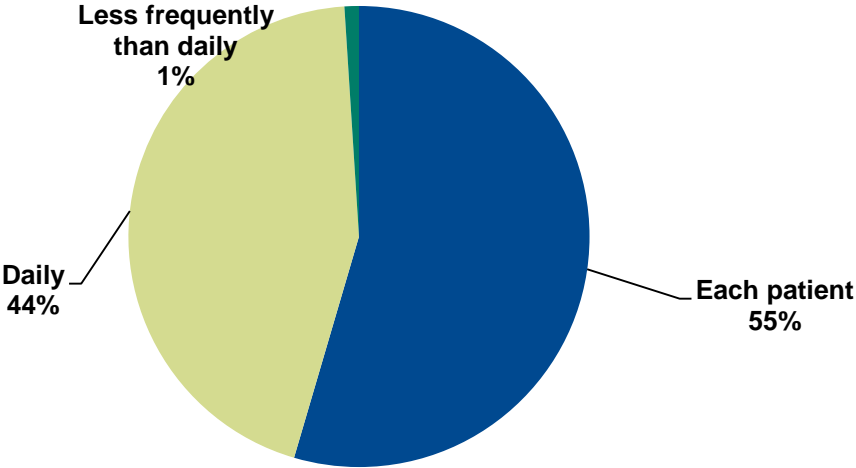
Two-thirds of facilities, or 66 percent, had a system for recording the number of patients that they serve. Among facilities with a system to record patients, 52 percent use an exercise book to do so, 29 percent use a national register, and 15 percent use a form designated by the director of the facility (Figure 34).

FIGURE 34: METHODS USED TO RECORD PATIENT VOLUME AT PRIVATE FACILITIES (N=2,527)



The frequency of use of this system varied: 55 percent of facilities record each patient served, 44 percent record numbers only on a daily basis, and 1 percent record less frequently than daily (Figure 35).

FIGURE 35: FREQUENCY OF RECORDING PATIENT VOLUME (N=2,527)



4. CONCLUSION

4.1. FINDINGS

To our knowledge, this report represents to the first effort to comprehensively map and gather data on the private health sector for a sizeable area of Nigeria. This report sought to answer five key questions related to the private health sector for the six states in which data was collected:

1. What is the overall size of the private health sector in terms of number of facilities?
2. How accurate are government lists of private health facilities?
3. What infrastructure do private health facilities have access to?
4. What is the quality and volume of family planning services offered by private health facilities?
5. Are private providers constrained in growing their business due to capital constraints?

Findings related to these five questions, as well as several other additional questions, are summarized below.

4.1.1. SIZE OF PRIVATE HEALTH SECTOR

Our findings confirm that the private sector does indeed play a key role in the delivery of healthcare in these six states. Overall, we identified 5,086 private facilities in these states compared to only 3,612 public facilities (Federal Ministry of Health, 2012). However, the reported patient volumes were relatively low, suggesting considerable excess capacity in the private sector. The median daily client flow for clinics is only 7 patients and for nursing homes it is only 6.

4.1.2. ACCURACY OF OFFICIAL LISTS OF PRIVATE HEALTH FACILITIES

A comparison of the facilities found while conducting this census with the lists of facilities obtained from government agencies revealed that the government lists are incomplete and inaccurate. Approximately 32 percent of the private health facilities found by surveyors were not included in official government lists, while approximately 53 percent of the private health facilities included in official government lists could not be found by surveyors.

4.1.3. INFRASTRUCTURE AT PRIVATE HEALTH FACILITIES

With regards to infrastructure, our data revealed that the majority of private health facilities had access to basic medical equipment. A large proportion of facilities in all but two states had access to grid electricity, though only a small proportion of facilities reported that they were able to draw at least 8 hours of electricity per day from the grid. Further, fewer than half of the facilities reported having access to piped water.

4.1.4. QUALITY AND VOLUME OF FAMILY PLANNING SERVICES OFFERED BY PRIVATE HEALTH FACILITIES

The survey asked detailed questions on the provision of family planning services. Overall, nearly 75 percent of private health facilities in the six states (excluding community pharmacies) offered at least one family planning method. The total number of family planning clients was relatively low as a proportion of all clients. In Lagos, among facilities that did not offer family planning services, the most common reasons cited for not offering such services were lack of demand and inadequate knowledge and skills in family planning. Access to finance does not appear to be a factor, as only 1 percent indicated that not being able to get the money they needed was a reason for not offering family planning services.

In Lagos, SHOPS conducted mystery client surveys to directly measure the quality of family planning counseling at 937 private health facilities selected to participate in an ongoing randomized controlled trial. It should be noted that these facilities were purposively selected and thus the findings from the mystery client surveys, unlike other results in this report, are not necessarily representative of all private health facilities in Lagos. In particular, only facilities that had not already received SHOPS training on family planning were selected to receive a mystery client survey.

The quality of family planning counseling at the facilities selected for the mystery client surveys appeared to be good on some measures but in need of improvement on others. In general, providers were responsive to the mystery clients' needs: in line with the patient's profile, providers gave information on long-acting contraceptive methods (IUDs, injectables, and implants) more than other methods. Further, providers for the most part gave information on effectiveness and side effects of any methods they mentioned. However, providers often failed to ask key questions necessary to gauge patient preferences, rule out pregnancy, and check for contraindications.

4.1.5. QUALITY AND VOLUME OF OTHER HEALTH SERVICES OFFERED BY PRIVATE HEALTH FACILITIES

The survey asked about a variety of other health services in addition to family planning. In particular, SHOPS asked facilities what they typically prescribe for children with malaria or diarrhea. The majority of facilities (excluding community pharmacies) reported typically prescribing ACT, the medication recommended by the WHO and Nigerian Federal Ministry of Health as a first-line treatment for pediatric malaria. However, a significant portion of facilities also reported using other methods such as chloroquine and SP. Further, 18 percent of facilities reported using artemisinin monotherapy, which is less effective than ACT and carries public health risks. For pediatric diarrhea, the majority of facilities (excluding community pharmacies) reported that they typically prescribe ORS, but few reported prescribing zinc. Antibiotics, which are recommended only in certain cases, and antidiarrheal medication, which is never recommended, were prescribed much more frequently than zinc.

Most facilities dispense pharmaceuticals. Among those that dispense pharmaceuticals, about three-quarters were found to comply with basic good drug storage practices such as keeping drugs off of the floor and away from water. It should be noted that although dispensing of medicines and contraceptives by service providers is a common practice, it does violate the scope of practice that normally separates the prescriber from the dispenser.

4.1.6. ACCESS TO FINANCE

Lastly, the data revealed that borrowing (excluding trade credit) among private health facilities was low: only 9 percent of facilities had received a loan from any source in the 24 months prior to the survey. This low rate of borrowing among private health facilities appears to be driven by lack of demand rather than lack of supply. Approximately one-third of those facilities that had not received a loan in the 24 months prior to the survey indicated that they had no need for a loan and only a very small proportion cited fear of being rejected for a loan as a reason for not obtaining a loan. Further, stock outs of basic family planning products and pharmaceuticals, which may indicate that the facility is credit constrained, are rare. For most family planning products and basic pharmaceuticals, less than 10 percent of facilities stated that they normally stock the product but that it was unavailable at the time of the survey. Lastly, the rate of stock outs does not vary greatly by access to trade credit. Facilities which reported having access to trade credit had only slightly fewer stock outs than facilities which reported no access to trade credit.

4.2. FURTHER USES OF THESE DATA

In addition to this report, the SHOPS project has created a public use dataset that contains a subset of the data collected as part of these surveys that the respondents have agreed to share with the general public.³¹ This dataset includes the following variables:

1. The state, LGA, address, and GPS location of the facility
2. The types of health services provided by the facility
3. The number of health providers employed by the facility by cadre

This dataset will be made available through the SHOPS website (www.shopsproject.org). These data have the potential to be used for a variety of programmatic and policy purposes by a range of health sector and non-health sector stakeholders. The following paragraphs describe a few ways these data may be used.

4.2.1. CREATE MAPS TO VISUALIZE PROVISION OF HEALTH SERVICES BY THE PRIVATE SECTOR

The inclusion of GPS points for each facility in this study allows for the visualization of data through maps. Some of the maps that may be created using these data include the following:

- Maps showing the location of facilities and which health services they provide
- Maps showing the location of facilities and their staffing levels
- Maps that combine data from this public use dataset with other geographic data such as data on prevalence of disease

4.2.2. CREATE A SEARCHABLE ONLINE REGISTRY OF PRIVATE FACILITIES

Data in this dataset may be used to create a searchable online registry of private facilities in these six states. Such a registry would help other providers, both public and private sector, in

³¹ About 8 percent of facilities that responded to the general survey refused to allow this information to be shared publicly, so figures from the public use dataset may differ slightly from figures in this report.

determining where to refer patients and may help patients themselves locate an appropriate facility to obtain treatment.

4.2.3. LINK PRIVATE PROVIDERS TO CLINICAL TRAININGS

Improving quality in the private sector might be achieved through continuing medical education of providers. Continuing medical education ensures that providers are being regularly exposed to medical updates and new technologies, and that they can continue to give correct and high-quality treatment. The data in this dataset may allow nongovernmental organizations and public sector facilities to better identify and reach out to private health facilities that may be interested in attending trainings.

4.2.4. STRENGTHEN REGULATORS' CAPACITY

The data in this dataset may allow regulators to better ensure that private health facilities meet licensing and other requirements.

4.2.5. STRENGTHEN PROFESSIONAL PROVIDER ASSOCIATIONS

Professional provider associations in Nigeria have the potential to greatly strengthen the private health sector in Nigeria. With data from this census, associations can do the following:

- Update registries and membership data to improve communication and coordination
- Advocate at the district and national levels to members of the private health sector technical working group on behalf of their members' needs regarding trainings, barriers, and other concerns
- Build and strengthen their membership base by geographically visualizing its extent, allowing them to strategically allocate funds for outreach and support activities

4.2.6. SERVE AS A SAMPLING FRAME FOR FUTURE SURVEYS

The list of private providers compiled by SHOPS may serve as a sampling frame for future studies of private health facilities in these six states. Thus, future surveys will not need to first identify and locate each private health facility but can instead randomly select a representative sample of private health facilities using the list of facilities included in the dataset.

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