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THE PRIVATE HEALTH SECTOR IN NIGERIA – AN ASSESSMENT OF ITS WORKFORCE AND SERVICE PROVISION

June 2009

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Mission

The Health Systems 20/20 **cooperative agreement,** funded by the U.S. Agency for International Development (USAID) for the period 2006-2011, helps USAID-supported countries address health system barriers to the use of life-saving priority health services. Health Systems 20/20 works to strengthen health systems through integrated approaches to improving financing, governance, and operations, and building sustainable capacity of local institutions.

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ARI	Acute Respiratory Infection
ART	Antiretroviral Therapy
ARV	Antiretroviral drugs
CHEWS	Community Health Extension Worker
CHO	Community Health Officer
CT	Counseling and Testing
DOTS	Directly Observed Treatment, Short-course
FBO	Faith-Based Organization
FCT	Federal Capital Territory
FGN	Federal Government of Nigeria
FMOH	Federal Ministry of Health
GL	Grade Level
HIV	Human Immunodeficiency Virus
HMO	Health Maintenance Organization
HRH	Human Resources for Health
IPT	Intermittent Presumptive Treatment
IPD	Inpatient Department
IUD	Intrauterine Device
LGA	Local Government Area
MDGs	Millennium Development Goal
NACA	National Action Committee on HIV/AIDS
NDHS	Nigeria Demographic and Health Survey
NGO	Nongovernmental Organization
NHIS	National Health Insurance Scheme
NTBLCP	National Tuberculosis and Leprosy Control Program
OPD	Outpatient Department
PEP	Post-exposure Prophylaxis
PMTCT	Prevention of Mother-to-Child Transmission
RWOPS	Remuneration Work Outside the Public Service
SMOH	State Ministry of Health
TB	Tuberculosis
UNAIDS	Joint United Nations Program on HIV/AIDS

USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

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EXECUTIVE SUMMARY

Nigeria has made major progress on many essential health indicators linked to the Millennium Development Goals. According to the World Health Organization's Nigeria office, limitations on the capacity of the public health system constrain improvements in the key health indicators. A possible solution is that the private sector be considered as a partner in scaling-up. The likelihood that the private health sector will be a successful partner depends on its ability to provide an increased scale of quality health services to rural, lower-income, and remote populations. This study[1] is focused on two good measures of this ability. The first crucial measure is the private health sector workforce. The other is the ability of the private health sector to offer significant coverage of services compared to the public sector.

Our study estimated the number of doctors, nurses (and midwives), laboratory staff, pharmaceutical staff, records and administrative officers, outreach health workers, and certain other cadres (e.g., nutritionists) working in the private health sector. While the private health sector has a smaller total workforce overall, and much fewer number of facilities it has about the same number of doctors (full- and part-time) as the public sector. The approximately 20,000 private sector doctors are concentrated in urban areas, as they are in the public sector. This raises some concern for the access to quality health care for Nigeria's rural population. An urban resident has access to nearly three times as many public sector doctors and four times as many private sector doctors. For nurses/midwives overall, an urban resident has access to twice as many, compared with a rural resident.

We estimate that there are 60,517 full-time and part-time nursing staff in the private sector as of the end of 2008, approximately half the number in the public sector. The related figure for laboratory staff was 8,456 (42% of the public sector figure), and of pharmaceutical staff there were 2,202 (16% of the public sector total). Details for other staff cadres can be found in the text.

Overall, based on our estimates for all cadres included in our survey, the Nigerian private health sector had an estimated 111,587 full-time workers and 14,092 part-time workers in 2008. Based on this, the total stock of health workers in Nigeria in 2008 is about 413,740, which includes a projected public health sector workforce of 288,061 (2008). This compares with a stock of 404,329 for the year 2006 reported in the National Human Resources for Health Strategic Plan 2008-2012 (FMOH 2007). When viewed in terms of population figures, the HRH stock in 2008 amounts to 28 doctors per 100,000 Nigerians across both public and private sectors, and 130 nursing staff per 100,000. The figure for doctors is the 12th highest in sub-Saharan Africa.

How will the private sector HRH stock change over time? The private health facilities attract new graduates (doctors as well as nurses) at a higher rate than public health facilities. This cannot be explained by salaries – the average (weighted) salary for private sector doctors or nurses is lower than comparable salaries in the public sector. If the entry rates from 2008 continue, and are matched by very similar rates of exits (signifying a high level of turnover) then the stock of private sector nursing staff will

[1] This study was funded by USAID/Nigeria and implemented by the Health Systems 20/20 project in collaboration with the Directorate of Planning, Research and Statistics of the Federal Ministry of Health (FMOH), Nigeria.

be almost constant in the future. However, for doctors the net rate of growth is positive, which means that the total stock will grow over time, potentially widening the gap with the public sector stock.

The main conclusion from the HRH section of the study is that Nigeria's private health sector has fewer health workers than the public health sector, which is expected given the concentration of the private health facilities in a few geographic zones and the lower number of facilities overall. However, the private health sector has more than its proportionate share of Nigeria's doctors. These doctors are concentrated in urban areas, a pattern also repeated for public sector doctors. This raises some concern for the access to quality health care for Nigeria's rural population.

The second aspect of this study estimated the proportion and number of private facilities in Nigeria providing a type of health service. For each of the services (HIV/AIDS, tuberculosis, malaria, maternal health, family planning, and child health), it also estimated the overall service load that the private health sector has the potential to deliver. These are summarized briefly below.

Private health facilities could provide in 2009 as many as 100,000 patients with antiretroviral treatment (ART), which is 29 percent of the target of 350,000 and 35 percent of the 288,000 people on ART in Nigeria currently. The contribution toward voluntary counseling and testing encounters is even more considerable – more than the total target for Nigeria. In regard to Directly Observed Therapy, Short Course (DOTS) services, the private sector could provide as much as 80 percent of the total service load achieved by the public sector in 2008. Further data is required to estimate if this is part of an increasing trend that will continue. However, for malaria treatment, the burden of service provision today falls on the public sector (80 percent of the cases) – but it is not clear that this requirement is fully met by public facilities.

Among essential health services, in maternal health, the private sector could provide up to 20 percent of the projected need for attended deliveries. In family planning services, while it is difficult to estimate the total current use of modern methods for contraceptives, the private sector will be able to provide a significant proportion of projected demand for certain methods. Our study investigated the provision of tubal ligation/vasectomy, injectable contraceptives, IUDs, pills, implants, and condoms. Separately, we also investigated the provision of OPD, IPD, or both types, of FP services. The availability of more complex methods involving physician presence or consultation (IUD, implanted contraceptives) increased with the size of the facility. Larger facilities were also more likely to have inpatient family planning services, i.e., the complex implant or surgical procedures. Still, the public sector will have to service the vast majority of clients for such methods if the 2010 targets are to be met.

In child health, the private health sector could provide as many as 889,226 immunizations per year in 2009, and handle up to 2.71 million outpatient visits for children per year. Again, we need past data to assess if this is part of an increasing trend.

Across both aspects of our study, the data suggests that the private sector has a much smaller workforce, but if the intensity of service delivery from our sample applies to the sector on average, then the sector has a potential for serving large numbers of patients. How is this possible? One hypothesis is that the private sector workers are more productive and hence are able to support a higher level of service utilization in private facilities. However, any hypothetically higher productivity is not motivated solely through salary or other compensation being higher than the public sector, as our data does not show a major gap in compensation.

The other hypothesis is that the patients accessing care in the private sector are provided clinical services via methods which can process a larger volume of patients with the same or lower number of

clinical health workers than the public sector, especially nurses. This hypothesis, if true, could be correlated with quality of care problems, such as inadequate length of consultation with a physician; short encounters with nursing or laboratory staff; etc., which merit investigation.

Separately, our analysis of the cost of consultation, one of many fees faced by patients facing out-of-pocket costs, suggests that affordability of private health facilities is an issue. If Nigeria would like to expand delivery of priority disease and essential health services, then the private health sector can only be depended on to extend these services to patients with an ability to pay. Given the intensity of current services, our data suggests that a substantial number of Nigerians do pay for private health services. However, we need more data on characteristics of the clients of private health services in order to understand what out of pocket costs, such as consultation fees, mean in terms of a proportion of income (a proxy for financial burden) to households.

In conclusion, on the ability of the private sector to deliver a significant scale of services compared to the public sector:

- We can attest that for some services, it is a significant actor, while for others its role is smaller. For those services where the private sector is a minor provider, we do not have data on whether the public sector is able to meet all or a substantial portion of the remaining demand.
- The role of the public health system is paramount in some of the services, and given the slow growth in the private sector health workforce – we do not have data on the growth in the number of facilities – we expect that that the public sector will need to play a major role if Nigeria is to meet the Health MDGs as well as other targets.

The authors of this report make the following recommendations:

- There is a possibility that the private sector delivers a high scale of services with a smaller workforce by sacrificing quality of care, where care is understood as the length of interaction of a patient with clinical workers sufficient to receive adequate medical attention. Policymakers should consider conducting a rapid appraisal of the quality of care in the private sector in order to corroborate or rule out this possibility, and thus inform the sector's readiness for partnering toward scale-up.
- Staff turnover is high for private sector nursing staff, a cadre where seniority and long-term skill development are important. Policymakers in the public sector may help in creating guidelines that can be accessed by private sector facilities interested in enacting pro-retention policies, especially for nurses and midwives.
- Government and partners should investigate, using a comprehensive client survey, the actual out-of-pocket cost to clients of private and public health facilities for consultation, pharmaceuticals, and materials.
- Our data shows that rural residents have access to much fewer numbers of doctors and nursing staff compared to urban residents across both the public and private health sectors. The FMOH in collaboration with state and local health authorities should explore strategies to recruit and retain more health professionals in rural areas.
- The FMOH should provide training to private health facilities to improve routine data collection in all health facilities for service load and outcomes, and for human resource information.

1. BACKGROUND

1.1 INTRODUCTION

With a population of more than 148 million people (2007 estimate), Nigeria is the most populous country in Africa. Both in terms of volume and severity, there are significant health-related challenges in the country. Life expectancy at birth is only 47 years).[2] The under-five mortality rate is 189 per 1,000 live births (2007),[3] which is the eighth highest in the world, and the maternal mortality rate in 2005 was estimated at 1,100 per 100,000 live births, the joint eighth highest.[4] According to the WHO Nigeria country office (2007), limitations on the capacity of the health system constrain improvements in the key health indicators, including those related to the Millennium Development Goals (MDGs).

Among the major contributors to the disease burden of the country are malaria, tuberculosis (TB), and HIV/AIDS. Malaria is a major health and developmental problem in Nigeria, with a related mortality rate of 156 per 100,000 population in 2006, ninth highest in the world.[5] It is by far the most important cause of morbidity and mortality in infants and young children: about 20 percent of deaths in children under five are due to malaria.

The HIV/AIDS epidemic is significant in Nigeria: adult prevalence in individuals over 15 years is at 2.9 percent (2007 estimate)[6] and nearly 2.6 million people are HIV positive (Joint United National Program on HIV/AIDS [UNAIDS] 2008). In 2007, there were an estimated 170,000 AIDS-related deaths in Nigeria.[7] TB prevalence is high, though declining in recent years. The estimated TB prevalence rate was 521 cases per 100,000 population in 2007. There is a significant TB-HIV co-infection rate. About 27 percent of adults with TB are also HIV co-infected (WHO 2006).

There are great disparities in health status and access to health care among different population groups in Nigeria. For example, the under-five mortality rate in rural areas is estimated at 243 per 1,000 live births, compared with 153 per 1,000 in urban areas (National Population Council, Nigeria and ORC Macro 2004, henceforth referred to as the Nigeria Demographic and Health Survey [NDHS] 2003). While 59 percent of women in urban areas deliver with a doctor, nurse, or midwife, only 26 percent of women in rural areas do so (NDHS 2003). Furthermore, there are wide variations in health status and access to care among the six geopolitical zones of the country, with indicators generally worse in the North than in the South (Federal Government of Nigeria [FGN] 2004).

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[2] UNICEF Country Statistics, www.unicef.org/infobycountry/nigeria_statistics.html (accessed 4/21/09).
[3] Ibid.
[4] WHO. World Health Statistics 2009, http://www.who.int/whosis/whostat/2009/en/index.html (accessed 4/21/09).
[5] Ibid.
[6] Ibid.
[7] WHO. Epidemiological Factsheet on HIV and AIDS, Nigeria: 2008 Update. http://apps.who.int/globalatlas/predefinedReports/EFS2008/full/EFS2008_NG.pdf (accessed 4/21/09).

1.2 SCALE-UP OF HEALTH SERVICE DELIVERY AND THE PRIVATE HEALTH SECTOR

Partnerships between the public and private sector in scaling up health service delivery are currently being discussed in many countries, and actively so in Nigeria. There are several possible financing modalities in such public-private partnerships, such as the public sector – i.e., the government – playing a stewardship or regulatory role but not financing private sector provision or the participation of the private sector in government-subsidized risk-pooling mechanisms for the poor. In terms of specific responsibilities in service delivery, there is a general view that the public health sector will continue to have a major role in providing preventive and primary health care, where user fees are not suitable from a public health perspective, or where clients have reduced ability or willingness to pay. The private sector would have a role in curative as well as maternal and child health services, especially in urban areas and for those with the ability to pay.

At present, there is little public-private coordination in health care service delivery in Nigeria that corresponds to the understanding stated above. In addition, there is no coordination or in the management of human resources for health (HRH), and, until this study, little was known about the size, quality, and distribution of the workforce available in Nigerian private health facilities.

The importance of such coordination has been raised in some broader studies that indicate that involving the private sector in scale-up is inescapable. The reasoning in some studies is that a substantial portion of health care provision already comes from the private sector. For example, an assessment by the International Finance Corporation (IFC) reported that up to half of all health service provision in Africa occurs through the private sector (IFC 2007a). However, other studies debate the significance of the private sector's contribution to service delivery, and hence raise into question the merits of enhanced coordination. A study, which claims to utilize the same IFC data, finds that 40 percent of the private sector's provision of services is through small shops selling drugs – implying only 60 percent of the identified scale of provision is through a formal health facility (Oxfam International 2009).

The debate clearly stresses the need for better data on the private sector's current role and future capabilities. In light of a paucity of data, this Health Systems 20/20 study, which utilized a survey (see Chapter 3, Methodology) conducted in all 36 states and the Federal Capital Territory (FCT), aims to provide an objective source of data on the characteristics of Nigeria's private sector health workforce and the services delivered by the sector. These data are important in two ways. First, such data can be used to inform health sector policy in Nigeria itself. Second, as an assessment focused on the most populous country in Africa (representing 17 percent of the sub-Saharan population), it informs the global debate on enhancing service delivery through the private health sector.

The agenda for improvement in health outcomes and the need for enhanced scale in service delivery was discussed in Section 1.1. The most important aspect of health sector policy in Nigeria informed by this study is the feasibility of fulfilling this agenda, either through a public-private partnership in service delivery, or with enhanced responsibility only on the public sector given a lack of capability in the private sector. The likelihood that the private health sector will be a successful partner of the Nigerian public sector in scaling up depends on its willingness to enhance access for the poor and the hardest-to-reach populations which has much to do with what financing mechanisms can be set up in a public-private partnership, as well as its ability to provide an increased scale of quality health services. This report is focused on shedding light on ability, using two good measures. The first is the number and quality of the health workforce needed for scale-up. The second is if the current scale of provision of services by the private sector is significant compared with the public sector. Below, we discuss how ability in these two

areas relates to meeting Nigeria's health sector agenda, and describe how our report measures and addresses these abilities.

1.3 SCALE-UP AND THE PRIVATE SECTOR HEALTH WORKFORCE

Health worker shortage is one of the health system limitations alluded to in the aforementioned WHO Nigeria country office report (2007). The National Human Resources for Health Strategic Plan 2008-2012 (or HRH Strategic Plan) (Federal Ministry of Health [FMOH] 2007) reiterates this. According to this document, the current stock of health workers in the public health sector is inadequate for Nigeria to meet the targets set under the health MDGs, the HIV/AIDS, TB, and malaria national plans, as well as the Polio Eradication Campaign. The gap between the current stock of public health workers and those required to meet the demands of the health MDG targets was described in Situation Assessment of Human Resources in the Public Health Sector (Chankova et al. 2006), a report by the predecessor project to Health Systems 20/20. The main conclusions of that report are summarized in Annex C.

The shortage of skilled public health workers exists not only in terms of absolute numbers at the national level, but also in regional disparities. Due significantly to these regional disparities in the availability of health workers, communities in many of the poorer and less accessible regions are underserved for essential health services as well as for priority disease programs.

The HRH Strategic Plan recognizes that the private health sector could help to address the health worker shortage and to develop HRH policies that can leverage or account for such resources. It is known that there are a substantial number of private facilities, largely unregulated (according to the HRH Strategic Plan), providing services at the primary and secondary levels of care. Prior data suggest that the majority of doctors in Nigeria work in the private sector, which by itself implies that cross-sectoral collaboration is relevant for Nigeria's overall ability to meet the health demands of its population with skilled services (PATHS Nigeria 2003).

The status of the private health workforce in terms of distribution, cadre, and skills is important for evaluating whether and how scale-up is feasible from an available resource point of view. If public funds are to be made available for expansion of pro-poor services through the private health sector, it is first necessary that the planners consider the capabilities of the diverse types of facilities that constitute the private health sector, the quality of the care they currently provide, and most importantly, the size and characteristics of the health workforce they employ. In Chapter 5, we provide a detailed assessment of the private health sector workforce, from the patterns of staffing in different types of facilities, to its overall size and characteristics such as entry/exit rates, and salaries.

1.4 SCALE-UP AND THE LEVELS OF SERVICE PROVISION BY THE PRIVATE HEALTH SECTOR

If the private sector is a relatively small provider of services in the essential health needs and priority diseases areas, then the scale-up to a significant level of provision in a scenario where the health planners expect the private sector to play a major role in curative and maternal-child health services would take many more years to achieve. Given this, it is essential to know what services are currently provided by facilities in Nigeria's private health sector, and to what intensity. If possible, we would also want to know the overall scale of services that the private sector could achieve.

In Chapter 6 of the report, we use survey data from Nigeria to assess the services provided by our sampled private sector health facilities, and their intensity. Further, we extrapolate from this data to the private health sector to estimate what is the potential total scale of provision. For each health service delivery area, we can ask and answer if the private sector is a major or minor provider compared with the public. We also provide data on the user fees charged for consultation across private facilities in our sample. The present study supplements the analysis and conclusions in Health Systems 20/20's Nigeria HIV/AIDS Service Provision Assessment (Amanyeiwe et al. 2009), which focused on public and faith-based facilities only. The main conclusions of the Nigeria HIV/AIDS Service Provision Assessment are presented in Annex C.

Beyond an assessment of the characteristics of the private sector health workforce and the health services provided in the sector, we also provide data on the organization of the sector in Chapter 4, where we survey the geographical distribution of private sector facilities, the forms of ownership and the types of facilities, as well as the levels of supervision of such facilities by organs of the government. Chapter 7 presents our conclusions and recommendations, and outlines further research that could be beneficial in assessing the readiness of the private sector to engage in the scale-up of quality health services in Nigeria.

2. PURPOSE OF STUDY

This study was funded by USAID/Nigeria and implemented by the Health Systems 20/20 project in collaboration with the FMOH Directorate of Planning, Research and Statistics. In focusing on the characteristics of the health workforce in the private health sector in Nigeria, the study hopes to inform HRH policy decisions to be made at the federal level, especially on the scope and feasibility of collaboration with the private sector on scale-up of health services, potential implications for the need to increase or modify the flow of health workers into the public health system to meet the anticipated overall gaps across sectors given the health needs in Nigeria, and other relevant policy issues. Such issues and the related implications of this study are discussed in more detail in the concluding chapter.

This report presents analysis and data on the health workforce and the services provided in the private health sector, disaggregated at the different levels of service provision. Where these levels match with their specific areas of focus, information will be available for the use of curative, preventive, and disease-specific bodies within the FMOH.

Given the previously mentioned importance of this study within a larger debate about the role of the private sector in the scale-up of health service delivery in Africa, many development partners and technical agencies are also interested in the data and analysis.

This study answers the following questions on the health workforce in the private sector:

- What is the current stock of HRH in the Nigerian private sector, by cadre and by type of facility?
- What is the current distribution of resources (geographic/urban-rural), by cadre?
- What employment modalities or time allocation practices are used (part-time/full-time/contractor) in the private sector?
- What is the current net attrition rate in the HRH stock by skill type?
- What is the projected stock, by cadre, of health workers in the Nigerian private sector over the next few years?

This study utilizes data from a related survey of private health facilities in Nigeria. The survey is described in the next section. As a result, several important questions can be answered on the nature of the private health sector, as represented by the sample.

- What is the likelihood of private health facilities, classified by type, offering services for priority disease (HIV/AIDS, TB, malaria), and essential health needs (maternal health, family planning, child health, etc.)? When such services are offered, what is the average annual service load, by type of facility?
- Given the likelihood of service provision and its intensity, what is the total service load that can be handled by the Nigerian private health sector, for the priority diseases as well as the essential health needs?

- What is the user fee burden of these facilities? How does it vary by type of facilities and by state or geographical zone?

In addition to the questions above, the study will compare the results on the health workforce and the service provision characteristics of the private sector to the related values in the public health sector, as possible. Data are available from prior studies on Nigeria, i.e., the Situation Assessment of Human Resources in the Public Health Sector (Chankova et al. 2006) and the Nigeria Service Provision Assessment (Amanyeiwe et al. 2009). Other linkages between the two sectors will be examined. For example, what percentage of private facility staff also work in the public health sector? What drives staff to work in the private sector – and would they consider working in the public sector? The comparisons with the public health sector are woven into the text in the next few chapters wherever they are applicable.

In Chapter 4, we also answer the following questions that relate to the feasibility of scaling up health services via the private sector:

- What is the current status of regulation in the private health sector, what is its nature (e.g. supervision visits), and which entities conduct the regulation?
- What are the common ownership structures and forms of payment in the private health sector?

The rest of this report is organized as follows. Chapter 3 discusses the study methodology, beginning with the survey sampling design and describing the sample frame of private health facilities in Nigeria. Chapter 4 provides data from this survey on the type and distribution of facilities, as well as other salient background factors on the private health care sector in Nigeria. It also summarizes qualitative information collected during the survey and from other reports and studies on the staffing and services provided in the sector.

The following chapters provide the bulk of study findings and conclusions. Chapter 5 focuses on the list of research questions above on the characteristics of the health workers in private facilities. Chapter 6 focuses on the questions related to the services provided in the private health sector, as represented by the survey sample. Extrapolated service loads at the national level are presented for reference by the policy community. The final chapter, 7, summarizes the analysis of the two prior chapters and outlines the main policy conclusions and recommendations from the study. It returns to the original debate on the possible role to be played by the private health sector in sub-Saharan Africa, and informs it to the extent possible based on our conclusions from Nigeria.

3. METHODOLOGY

This study is based on a related nationally-representative survey conducted by Health Systems 20/20 in private health facilities at all levels of care (including for-profit and faith-based facilities); and a model for estimating total private health sector staff by cadre based on the sample data. This section describes the survey and analysis methodology.

3.1 SAMPLE FRAME

The master list of facilities was constructed from several sources. These sources included lists of private health facilities maintained by development partners such as Family Health International's Global HIV/AIDS Initiative Nigeria Project, Columbia University's International Center for AIDS Care and Treatment Programs (ICAP), the Society for Family Health, and the Christian Health Association of Nigeria (CHAN). These were combined with lists maintained by State Ministries of Health (SMOHs) and the Federal MOH. This master list of 9,992 private facilities was organized by state and local government authority (LGA), and also included the name of the facility, its type based on the classification presented in Table 2 (next section), and other information in some states such as the number of beds in the facility and the facility's location. In certain state lists, the level of the facility was also provided, but this information was not found to be trustworthy. In some cases, clinics were listed as secondary facilities, and hospitals listed as primary. Therefore, it was decided not to depend on this information for classification.

3.2 SAMPLE SELECTION

The survey was conducted in 300 private health facilities representing different levels of care. The number 300 was adopted as the maximum feasible sample size given time and funding constraints. The facilities were selected using simple random sampling, with the geographical zone in Nigeria as the primary sampling unit. The total sample of 300 was subdivided by the zones based on the percentage of all facilities that were in the zone. For example, the South West zone has 24 percent of all private facilities. Hence, 24 percent of 300, or 73 facilities, were randomly selected from the 2,401 facilities in the zone. This process was continued till all 300 facilities to be sampled had been drawn from each zone. Within a zone, facilities were not further stratified by state for purposes of sampling, but in effect all states were included in the drawing. The results of the exercise can be seen in Table 1.

The facilities drawn in each zone were not stratified by type of facility for the sampling, given that the distribution of types across zones is highly uneven. However, all secondary hospitals were drawn with certainty wherever they occurred. The result of the sampling in terms of types of facilities is presented in Table 2.

TABLE 1. SAMPLING RATES BY ZONE AND STATE

South East	Total	Sampled	Sample %	South West	Total	Sampled	Sample %
Abia	322	10	3.1%	Lagos	1005	30	3.0%
Anambra	555	17	3.1%	Oyo	666	20	3.0%
Ebonyi	181	6	3.3%	Osun	213	7	3.3%
Enugu	396	12	3.0%	Ondo	282	9	3.2%
Imo	938	29	3.1%	Ekiti	125	4	3.2%
SE subtotal	2,392	74	3.1%	Ogun	110	3	2.7%
				SW subtotal	2,401	73	3.0%
South South	**Total**	**Sampled**	**Sample %**	**North West**	**Total**	**Sampled**	**Sample %**
Edo	429	13	3.0%	Kano	169	5	3.0%
Cross River	114	4	3.5%	Kaduna	431	13	3.0%
Rivers	241	4	1.7%	Sokoto	30	1	3.3%
Delta	580	13	2.2%	Zamfara	21	1	4.8%
Bayelsa	22	2	9.1%	Kebbi	31	1	3.2%
Akwa Ibom	15	1	6.7%	Katsina	54	2	3.7%
SS subtotal	1,401	37	2.6%	Jigawa	11	None	0%
				NW subtotal	747	23	3.1%
North Central	**Total**	**Sampled**	**Sample %**	**North East**	**Total**	**Sampled**	**Sample %**
Benue	450	13	2.9%	Adamawa	57	2	3.5%
Plateau	585	18	3.1%	Taraba	24	2	8.3%
Nasarawa	190	6	3.2%	Bauchi	50	1	2.0%
Niger	834	25	3.0%	Gombe	66	2	3.0%
Kwara	184	7	3.8%	Borno	64	2	3.1%
Kogi	139	4	2.9%	Yobe	17	1	5.9%
FCT	321	10	3.1%	NE subtotal	278	10	3.6%
NC subtotal	2,703	83	3.1%				

TABLE 2. SAMPLING RATES BY TYPE OF FACILITY

Type of facility	Sampled	Frame	Sampling rate
Basic health clinic	25	190	13%
Clinic	73	4,283	2%
Community health center	3	7	43%
Comprehensive health center	13	18	72%
Cottage hospital	3	18	17%
Dispensary	8	188	4%
Health center	12	203	6%
Health clinic	6	312	2%
Health post	0	83	0%
Hospital	93	2,285	4%
Infirmary	0	4	0%
Maternity	36	1,870	2%
Secondary hospital	15	15	100%
Primary health center	13	446	3%
Total	300	9,922	3%

3.3 DATA COLLECTION INSTRUMENT

The Health Systems 20/20 team developed a survey instrument, based closely on that used in the Situation Assessment of Human Resources in the Public Health Sector (Chankova et al. 2006). A two-day training for data collectors was conducted in Nigeria in January 2009, and each data collector was given a manual for the survey process. In each of the selected facilities, a questionnaire was administered to eligible facility managers and health staff. These were staff in charge of the services included in the survey – for example, information regarding immunizations in a hospital was obtained from the nurse in charge at the hospital's child health clinic. The questionnaire collected information on important aspects of health workers and services at the facility that included:

1. Number of full-time and part-time staff employed in 2006, 2007, and 2008
2. Number of incoming and outgoing staff during the years 2006 and 2007 by reason for leaving or starting work at the facility
3. Types of specific services provided at the facility for HIV/AIDS, TB, malaria, maternal health, child health, and family planning
4. Number of patients seen at the facility in the three months preceding the survey for each of the above mentioned services
5. Salary paid to staff during 2008 by cadre
6. Average basic consultation fee charged to patients at the facility in 2008

The survey was conducted in February 2009. There were 24 teams of data collectors across 35 states (excluding Jigawa) and the FCT. The data collectors were accompanied by an official from the state or LGA monitoring and evaluation office for purposes of introduction to the facility staff and management. The team spent up to one and a half hours in each facility interviewing staff and entering data into the survey instrument.

3.4 ANALYSIS

Data from the survey questionnaires were entered electronically into a CSPro database, and all data analysis was performed using SPSS and Microsoft Excel software.

Any sums and averages in the discussion below are presented by facility type or a 'level' of private facility, where each level is a grouping of several facility types. In the public sector, three levels are typically present: primary, secondary, and tertiary. Since there are no tertiary facilities in the master list of private facilities, this category would not apply. Also, given that the classification of primary and secondary within the same type of facility was not reliable, it was not desirable to use those category labels either.

Instead, a classification of levels was adopted that is a close proxy to the classification scheme of primary, secondary, and tertiary levels of care. Table 3 describes the scheme and the grouping of the facility types within each level category in the scheme. The classification groups facilities of similar average total staff size as found in the sample data. The average total staff size values by type and level of facilities are provided in the next chapter. The grouping worth noting is level 3: the 'hospital and comprehensive health center' level. All comprehensive health centers in the sample were large by virtue of their staff size and therefore did not belong in the 'clinic and center' level (level 2).

TABLE 3. CLASSIFICATION OF PRIVATE HEALTH FACILITIES BASED ON TOTAL STAFF SIZE LEVELS

Level 1	Level 2	Level 3
Cottage hospital Health post Dispensary	Basic health clinic Clinic Health center Health clinic Community health center Primary health center Maternity home / nursing home	Hospital Secondary hospital Comprehensive health center
Sample N: 11 (3.8%) Master list: 289	Sample N: 168 (2.3%) Master list: 7,312*	Sample N: 121 (5.2%) Master list: 2,317

* Not included: 4 infirmaries in the master list. Total staff size (average) for the facility types is discussed in the next chapter

When calculating a statistic such as the average number of health workers per facility in a level category such as 'clinic and center', the averages from each constituent facility type are weighted by the number of sampled facilities of that type. This reduces the impact on the average of values from minor facility types such as cottage hospitals, etc.

3.5 LIMITATIONS

It is customary to weight the sample averages with a sampling weight, which usually adjusts for the probability of selection of the facility in the survey (base weight) and non-response. This ensures that a sample statistic can be generalized to the population. While non-response was not an issue, some discussion of base weights is required.

The averages in this study are not sample weighted. Under standard sample weighting, given the 73 private facilities randomly selected from the master list for the South West zone, each sampled facility represents 33 facilities in the population (2,401/73), and the base weight is 33. This weight would be useful if we were interested in reporting a statistic for the average private facility from a zone (ignoring the very large differences between types of private facilities).

However, the policy-relevant estimation requires averages by type or level of facility, which is related to how health care is delivered and how planners may inform themselves based on this study. This required that the sample be drawn based on a primary or secondary stratification by type or level of facility. Considering that the zone was chosen as the primary and sole sampling unit at the time of study inception, this is not possible. However, this is not a crucial limitation as the sampling weights by zone are roughly similar (see Annex A). If used for any national-level estimates, the effects of applying these weights would not be significantly different from using un-weighted zonal averages.

Even without base sample weights, the averages for each level (group of types of facilities) are more generalizable to the population of facilities of that level, compared with simple averages by type of facility to the population of that type. Within each of the levels 1 to 3 (Table 3), the simple averages are adjusted – using the sampled number of facilities of each type in the level grouping as a weight. In any future analysis of the private health sector, it would be desirable to sample by the type of facility or level of care/staffing; to increase the overall sample size; and to use multiple stratifications in sampling as required.

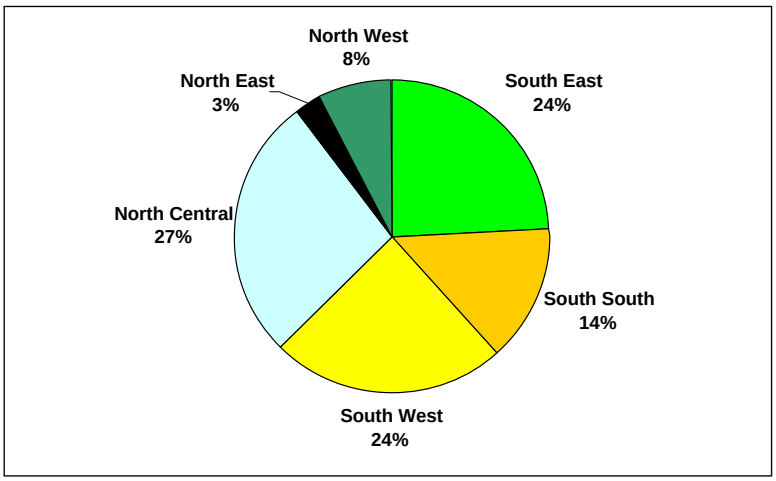
4. ORGANIZATION AND CHARACTERISTICS OF THE PRIVATE HEALTH SECTOR

Though some form of a non-governmental health sector has existed in Nigeria since missionaries and faith-based organizations (FBOs) set up clinics in colonial times, the sector, especially private for-profit health facilities, has grown rapidly since the mid-1980s. In this study, we use 'private' to mean 'non-governmental.' Therefore, private includes faith-based facilities, and does not necessarily connote for-profit. Non-governmental also includes the traditional medicine practitioners and informal drug vendors, who have a clientele in some parts of the country. However, they are not a part of this study, which is focused on formal practitioners. Table 4 (Section 4.2) presents the distribution of our sampled private facilities by type of ownership, e.g., faith-based.

4.1 GEOGRAPHIC DISTRIBUTION OF FACILITIES

Figure 1 shows the distribution of private health facilities in Nigeria by zone. An underlying master list of facilities by state was used to calculate the percentage in each zone. The northern zones, especially the North East and North West, have fewer registered private facilities than the other zones. The distribution of informal private sector providers, such as patent medicine vendors and traditional medicine practitioners, is unknown.

FIGURE 1. DISTRIBUTION OF PRIVATE HEALTH FACILITIES IN NIGERIA BY GEOGRAPHICAL ZONE



Total: 9,922 facilities. Source: Nigeria private health facilities list, compiled for this study.

The states in the three southern zones have about two-thirds of all the private health facilities in the country. The North Central zone has private health facilities comparable to the southern zones with a preponderance of faith-based facilities relative to private for-profit facilities. The distribution of private facilities within a zone or a state can be very uneven. In the North West zone, 80 percent of the

facilities are in the states of Kaduna and Kano. In Kano State, over 90 percent of the private health facilities are within Kano city.

Most faith-based facilities are missionary facilities that are affiliated with a church, with the biggest network being those affiliated to the Catholic Church. In a few northern communities, there are some Islamic faith-based facilities. Generally, for-profit facilities are concentrated in urban areas, whereas faith-based facilities can exist in both rural and urban areas. Nursing and maternity homes are fairly common in the south of Nigeria, for example, in states such as Imo and Anambra.

4.2 FORMS OF OWNERSHIP

While smaller private health facilities such as dispensaries or health posts were likely to be sole proprietorships or linked to a FBO, as the size of the facility grew (measured in terms of staff strength in this study) the rate of sole proprietorship increased at the expense of FBO ownership. A proportion of large facilities such as comprehensive health centers (23 percent) and hospitals (12 percent) were partnerships or group practices (structured as Limited Liability Practices, or LLPs).

Most private for-profit health facilities in the country are sole proprietorships (Table 4) and provide general medical care, even if the word 'specialist' occurs in the facility name. There are few group practices, located in Lagos, Abuja, Ibadan, and other major cities. Facilities owned as 'private corporations' were most common in the North East zone (which also had the highest FBO ownership). Sole proprietorship rates were highest in the South West zone (90 percent of facilities). These trends may have a local rationale that is beyond the scope of this study to investigate. In our data, there were no marked differences in ownership between rural and urban facilities, though partnership/group practices and private corporations were somewhat more common in urban areas.

TABLE 4. OWNERSHIP STRUCTURE, PERCENT OF FACILITIES BY ZONE (BASED ON SAMPLE)

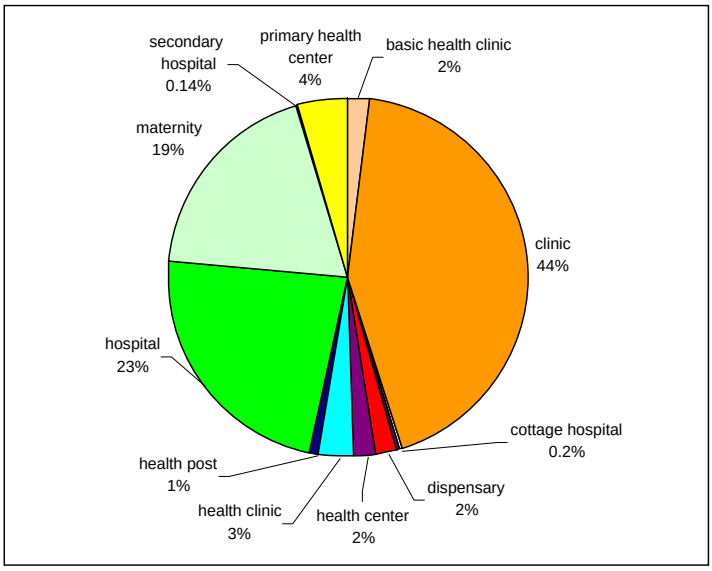
Ownership	North Central	North East	North West	South East	South West	South South
Sole proprietorship	83.3%	40%	68.2%	87.8%	90.5%	72.2%
Partnership/group practice (LLP)	8.3%	10%	9.1%	4.1%	5.4%	5.6%
Private corporation	0%	40%	13.6%	2.7%	1.4%	16.7%
Public corporation	0%	0%	0%	0%	0%	2.8%
FBO	7.1%	10%	4.6%	5.4%	2.7%	2.8%

Large private sector non-health organizations also provide health services, generally for their staff. These include hospitals and clinics of the major oil companies (Shell, Chevron, Mobil, NNPC, among others), Power Holding Company of Nigeria (formerly NEPA), the Central Bank of Nigeria, steel companies, construction companies, and major hotels. These company clinics provide comprehensive and sometimes specialist services and are found wherever there is a high concentration of their staff.

4.3 TYPES OF PRIVATE HEALTH FACILITIES

Figure 2 shows that the most common types of private health facilities are clinics (44 percent), hospitals (23 percent), and maternity homes (19 percent). The distribution in the figure is based on a master list of private health facilities in Nigeria by state. This list and its sources were discussed in Chapter 3 (Methodology). For most states, facilities in the list were named, and were grouped by LGA.

FIGURE 2. DISTRIBUTION OF PRIVATE HEALTH FACILITIES IN NIGERIA BY TYPE OF FACILITY



Source: Nigeria private health facilities list compiled for this study. Total: 9,922 facilities.
Note: Not shown (<0.14%): community health center; comprehensive health center; infirmary

In most state lists, there was an existing classification of facilities by the types in Figure 2. However, this classification had to be checked and edited facility-by-facility, based on the facility's name, size in terms of beds, and other facility-level information available in the list for that state. The existing classifications in the raw data were not always trustworthy. For example, as per the facility name, many clinics were classified in the original lists as hospitals, primary health centers as clinics, and so on. The use of the word 'hospital' or 'specialist hospital' in the facility name can also be misleading in the Nigerian private sector, especially when the number of beds in the facility is considered. By the standard of capacity, many such 'hospitals' are in fact clinics.

The distinction in practice between general and specialist private clinics, and between the same for hospitals is fluid, with medical officers (akin to general practitioners) sometimes providing specialist services and specialists spending a lot of their time providing general medical care. The only exception may be ophthalmologists, ENT physicians, and dermatologists.

Nursing homes may be opened by a licensed nurse, and a midwife may open a private maternity home after five years' registration and service in the public or private sector (Barnes et al. 2006). The license for the private facility is issued by each state health department. The nursing home may be an outpatient-only practice, but it can have beds, and a maternity home does deliveries. States can enforce standards in addition to those established by the National Nurse/Midwife Council controlling scope of practice, so there is discrepancy across states. In Lagos State, a maternity home must be supervised by a physician, although the national law only requires that the licensee must "demonstrate unequivocally that

there is prompt access to a practicing obstetrician and gynecologist or an experienced medical practitioner who has legal responsibility for attending in emergencies" (Barnes et al. 2006).

4.4 QUALITATIVE INFORMATION ON STAFFING

The clinics and health centers are mostly owned by individual doctors who also serve in the facilities. These owner-practitioners may also recruit one or more other doctors to support them. In many instances, doctors working with the public sector are also involved in private for-profit practice, either in their own facilities, or working on an hourly basis with a clinic, sometimes up to six hours a day. Section 4.5 provides analyses of the survey data to corroborate this. Some public sector doctors are also on call with a private facility for emergencies.

Except in faith-based and group-practice facilities, qualified nurses in general are present in a smaller proportion of private facilities compared with the public sector. According to our data (Table B.5/B.6, Annex B), 38 percent of nursing staff are actually auxiliary or assistant nurses who may not have gone through any formal nursing training but rather were trained on-the-job at a health facility. Continuing education for health workers in the private sector is generally weak, especially for doctors and nurses/midwives. More qualitative information on staffing in the private health sector is provided in Chapter 5.

4.5 PUBLIC-PRIVATE LINKAGES IN STAFFING

The size, characteristics, and rates of attrition and entry in the private health sector workforce will be examined in detail in Chapter 5. Some observations are made here on whether staff reported as present in private facilities also worked in the public health sector. It is a widely held opinion that full-time public sector doctors in sub-Saharan Africa often 'moonlight' in private clinics to supplement their income (Public Service Commission, South Africa 2004). This may be detrimental to their duties in the public sector, or to their availability to be on-call for the public facility they are assigned to. Part-time doctors on the public payroll may routinely perform such 'remunerative work outside the public service' (RWOPS).

In our survey in Nigeria, we asked private sector facility directors about the proportion of staff who also work in the public sector. We could not determine whether the staff were originally hired in the private or public sector, i.e., what was the direction of moonlighting. We also do not know if those staff reported as working in the public sector were part-time in the public or private facility. However, the rates were fairly high: from 42 percent of staff in hospitals (average) to 69 percent in comprehensive health centers. In other types of facilities, the rate varied from 33 percent (maternity homes) to 54 percent (primary health centers). The proportion of staff working in the public sector was higher in urban facilities (47 percent) compared with the rural (30 percent). This may be because of the higher availability of private facilities in urban areas. If these rates do signify RWOPS, then they are comparable to the rates (about 50 percent in doctors) found in a study South Africa (Amanyeiwe et al. 2009).

These rates of RWOPS do not necessarily indicate that health workers find public service unappealing. When we asked staff in private facilities whether they would like to work in the public sector, on average about 40 percent (stable across rural and urban facilities) said they would be interested.

4.6 QUALITATIVE INFORMATION ON SERVICES

Previously it was thought that services provided by for-profit facilities are mostly curative. But faith-based facilities may provide a range of services, including prevention and health promotion. In Chapter 6, we review the services provided by private facilities (also see Table B.3, Annex B).

Pharmacy services are generally provided within the private clinic or hospital, and clients are rarely asked to purchase drugs outside the facility. Larger facilities have laboratory services on site. Smaller facilities refer clients for testing elsewhere; they sometimes have ongoing referral agreements with such labs.

In a study of for-profit private facilities, more than 60 percent of clients in FCT and Lagos belonged to the highest wealth brackets (Wesson et al. n.d.). The association of higher socioeconomic status and private for-fee facilities implies that in major cities some clients are willing to pay rather than go to public facilities. It is possible this is due to perceived quality issues. However, there has not been a formal study of perceptions of service quality, and this should not be considered as evidence of higher quality of service in the private sector. Indeed, quality standards are variable in the sector – when monitored by the regulatory agencies, private health facilities have been found wanting, with as many as 184 facilities closed down for violations and/or poor quality in Lagos between 2007 and 2008.[8]

Based on qualitative studies, it is understood that people with lower incomes who utilize the private sector tend to frequent pharmacy outlets and even seek advice from the pharmacists or patent medicine vendors for general medical queries (Barnes et al. 2006).

At the other end of complexity, as of mid 2009, as many as 55 health maintenance organizations (HMOs) accredited by the National Health Insurance Scheme (NHIS) exist in Nigeria, concentrated in the big cities of Lagos, Abuja, and Ibadan.[9] Some of the better-organized HMOs operate a standard primary care provider model, i.e., a hospital is assigned to a covered client, and acts as a gatekeeper to services. Such HMOs can operate a more sophisticated referral system within their own network, beginning with primary services, and have specialist services available on call. However, HMOs cater to only a portion of the formal employment sector – whether public or private.

Further details on the NHIS-HMO linkage are available in a recent study (Barnes et al. 2006). Besides the majority of workers in the formal sector without HMO coverage, a large number of Nigerians work in the informal sector that would not be eligible in any case. As a result, HMOs are not an option for most Nigerians. It should be noted that there is no real referral system in the general private health care sector.

Forms of payment accepted

Most facilities required immediate fee for service, though the other option of credit was also accepted in some facilities. Credit was more likely to be extended in facilities in urban areas (14.6 percent of facilities in our sample) vs. rural (8.3 percent). Larger facilities such as hospitals and comprehensive health centers were more likely to extend credit. Surprisingly, dispensaries were more likely to accept credit compared with clinics and centers. Maternity and nursing homes were least likely to extend credit.

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[8] IRIN News Service. http://www.irinnews.org/report.aspx?ReportID=77981 (accessed 4/21/09).
[9] NHIS List of accredited HMOs. http://www.nhis.gov.ng/accreditedhmos.htm (accessed 4/21/09).

There was no discernible geographic trend in the likelihood of credit being accepted. The two zones with the most use of credit were South South and North West.

4.7 REGULATION AND SUPERVISION

Federal, state, and local health authorities provide regulatory oversight of private health facilities. In our sample of 300 facilities, almost all were regulated by some entity, with the likelihood of regulation varying between 98 and 100 percent depending on the level of facility (the levels were introduced and explained in Chapter 3). This counters the perception that Nigeria's private health sector is 'largely unregulated.' However, our sample is drawn from the master list of formal private sector providers recorded in the registers of various government agencies. There may be other private facilities, especially among patent medicine vendors, traditional medicine providers, small pharmacies/clinics, etc., that are not registered and not regulated. Therefore, the rates of regulation in our sample are representative only of the formal private health sector as defined previously.

Between 80 and 90 percent of the facilities were regulated by SMOHs, with the LGA being the next most common regulator, followed by the FMOH. The FMOH mostly regulated large hospitals. Those facilities regulated by a SMOH were more likely to have received at least one supervisory visit during the year according to the survey, followed by those regulated by a LGA. There was no statistical difference between the likelihood of being regulated by some entity when the facility was rural vs. when it was urban. However, rural facilities were more likely to be regulated by a LGA than a SMOH. States with particularly high rates of LGA-regulated facilities were Benue and Plateau.

Further, it was more likely that when regulated by the SMOH, the facility would receive more than one supervisory visit. The likelihood that a private dispensary would receive more than one supervisory visit in a year was double when the facility was regulated by the SMOH vs. the LGA. The likelihood of multiple supervisory visits was also higher for private clinics/centers regulated by the SMOH.

The inference from the data above is that if a facility is in the rural area, and is small in size, it is likely to be regulated by the LGA, and may not receive more than one supervisory visit per year. This has implications for the quality of care and the implementation of national treatment and case management protocols.

5. CHARACTERISTICS OF THE PRIVATE HEALTH SECTOR WORKFORCE

This section provides an overall picture of HRH stock, growth in the stock, and compensation for workers in the private health sector in Nigeria. Where possible, detailed analysis is broken down by level of facility staff size (levels 1 to 3, as per Table 3 in Chapter 3), and/or by geopolitical zone, or by urban vs. rural location. The categorization by total facility staff size will become understandable after the next section, as the average facility staff size by type of facility is discussed.

Most findings are presented for the following combined categories of health personnel:

- Doctors and outreach health workers: kept as their own category
- Nurses/midwives: includes nurses, assistant nurses, and midwives
- Pharmaceutical staff: includes pharmacist and pharmacy technicians
- Lab staff: includes laboratory scientists, radiologists, and laboratory technicians
- Records officers and administrative: includes health and medical records officers
- Other: includes nutritionists and support staff (cleaners, guards, technicians)

5.1 AVERAGE NUMBER OF STAFF PER PRIVATE HEALTH FACILITY

Table 5 shows that, while level 3 facilities (comprehensive health centers and hospitals) had more than 22 staff on average across both full-time and part-time staff, clinics and centers (level 2) averaged between 8 and 13 staff per facility. Dispensaries were the smallest facilities, on average with about 3 staff, and were grouped with cottage hospitals in level 1. Given that there are many more dispensaries than cottage hospitals (a relatively rare facility type), the weighted average for level 1 would be drawn down.

TABLE 5. AVERAGE NUMBER OF STAFF PER FACILITY (ALL CADRES, SIMPLE SAMPLE AVERAGES)

Type of facility	Full-time	Part-time	Total
Level 1			
Dispensary	2.3	0.3	2.5
Cottage hospital	5.2	1.2	6.4
Level 2			
Maternity	7.1	1.1	8.2
Community health center	6.0	3.6	9.6
Clinic	8.5	1.2	9.7

Type of facility	Full-time	Part-time	Total
Basic health clinic	8.5	1.3	9.7
Health center	9.4	1.1	10.5
Health clinic	10.4	1.1	11.5
Primary health center	9.8	2.7	12.5
Level 3			
Hospital	20.1	2.0	22.1
Comprehensive health center	18.7	4.6	23.3
Secondary hospital	25.8	3.0	28.8

Table 6 presents the first set of results by the level categories suggested by Table 5 and described in Table 3 previously. The averages are presented both for the facilities in the sample that have at least one staff from the cadre, and as a simple average of all facilities in the sample (bracketed values). A wide difference between the two, i.e., where the simple average is much lower, suggests that many facilities at that level do not usually have staff from that cadre. Closer gaps between the two types of averages, as for doctors in level 3 facilities, suggest that most facilities have at least one. This type of distinction is important to understand the likelihood of finding a staff type in a private health facility beyond the information revealed in a simple average. Given this understanding, one can infer that some level 2 facilities (clinic/center) are relatively well-supplied with laboratory personnel, but the majority of such facilities have few if any.

TABLE 6. AVERAGE* NUMBERS OF STAFF BY CADRE, PER FACILITY

As an average for facilities with at least one staff of the cadre, and as a simple average (brackets)

Cadre	Level 1: Cottage hospital, dispensary, health post	Level 2: Clinic and center	Level 3: Hospital and comp. health center
Doctors	1.7 (0.8)	2.9 (1.4)	6 (4.3)
Nurses, midwives	2.9 (1.1)	12.2 (4.6)	21.3 (11.2)
Laboratory staff	2.4 (0.7)	4.6 (0.7)	8.3 (1.9)
Pharmaceutical staff	0	2.2 (0.2)	3.3 (0.6)
Records off. and admin	3 (0.6)	4 (0.6)	6.6 (1.6)
Outreach health workers	1.5 (0.2)	3.1 (0.5)	4.1 (0.8)
Others (incl. nutritionists)	3 (1.2)	5.3 (2.2)	10.4 (4.7)

* Three-year average, calculated from sample averages by type of facility for 2006, 2007, and 2008

It is interesting to note that at least in our sample of eight dispensaries, none had full-time or part-time pharmacy staff (neither pharmacist nor pharmacy technician). Table B.4 in Annex B provides the background percentages of facilities (by type) in our sample with at least one staff in the cadres of doctors and nurses.

5.2 STOCK OF HEALTH WORKERS IN THE NIGERIAN PRIVATE SECTOR

Information was available on the total number of staff by cadre in the 300 sampled facilities for the year 2008. For the total staff by cadre in the entire private health sector, it was necessary to estimate the staff in the unsampled 9,622 facilities. This estimation was conducted using an extrapolation method, the results of which are provided in Table 7. The first step for all cadres was multiplying the three-year average number of staff of a cadre (e.g., doctors) per facility of a type (e.g., health clinic), and the number

of unsampled facilities of that type (N=306 health clinics). This was done separately for full-time and part-time staff.

TABLE 7. ESTIMATED STOCK OF HEALTH WORKERS IN NIGERIA, 2008

Cadre	Private sector (2008)		Public sector* (2008)	
	Full-Time	Part-time	Total staff	Total staff
Doctors	10,439	9,496	19,935	20,836[1]
Nurses, midwives	57,754	2,763	60,517	120,456
Laboratory staff	7,774	682	8,456	20,017
Pharmaceutical staff	2,050	152	2,202	13,396
Records off. and admin	7,767	103	7,870	19,748[2]
Outreach health worker	2,737	59	2,796	75,855[3]
Others (incl. nutritionists)	23,065	837	23,902	17,753[4]
Total	111,587	14,092	125,679	288,061

Note: Estimates of private sector staff from this study. * Projected using net attrition rates and 2005 estimates (Chankova et al. 2006)

[1] Does not include medical interns (house officers)

[2] Includes administrative staff and medical records officers (data managers)

[3] Includes community health officers (CHOs) and community health extension workers (CHEWs)

[4] Includes medical interns (house officers), environmental health officers, and public health nursing officers

Table 7 compares the total stock in the private sector with the values from the Situation Assessment of Human Resources in the Public Health Sector, which has data for 2005 (Chankova et al. 2006). While the public health sector in 2005 had more than twice as many workers in aggregate compared with the current private sector, the number of doctors in aggregate was higher in the latter. The net growth rate in the public sector HRH stock (growth due to new graduates minus the attrition) was positive for all cadres based on 2005 data except nurses and midwives (Chankova et al. 2006). If these net growth rates remained stable over 200~508, then the gap seen in Table 7 between public and private sector stocks in cadres such as doctors and laboratory staff may have widened (and shrunk for nurses and midwives). This cannot be conclusively determined without a survey of recent attrition and graduate entry in the public health sector.

From Table 7, the total stock of health workers in Nigeria in 2008 is about 413,740, combining the projected public sector HRH from 2008 (from the 2005 estimate) and the estimated private sector HRH in 2008. This compares with a stock of 404,329 for the year 2006 reported in the HRH Strategic Plan (FMOH 2007), as calculated from the registries of Nigeria's professional health/medical regulatory bodies. Table 8 presents the results from Table 7 in terms of health workers per 100,000 persons in the population.

TABLE 8. HEALTH WORKERS PER 100,000 PERSONS IN THE POPULATION, NIGERIA

Cadre	Public Sector 2008*	Private Sector 2008	Total
Doctors	15[1]	14	28
Nurses, midwives	86	43	130
Laboratory staff	14	6	19
Pharmaceutical staff	10	2	11
Records off. and admin	14[2]	6	20
Outreach health worker	54[3]	2	53
Others (incl. nutritionists)	13[4]	17	30
Total	206	90	289

Note: Population used = 140,003,542 (2006 Census). * Projected using net attrition rates & 2005 estimates (Chankova et al. 2006)

[1] Does not include medical interns (house officers)

[2] Includes administrative staff and medical records officers (data managers)

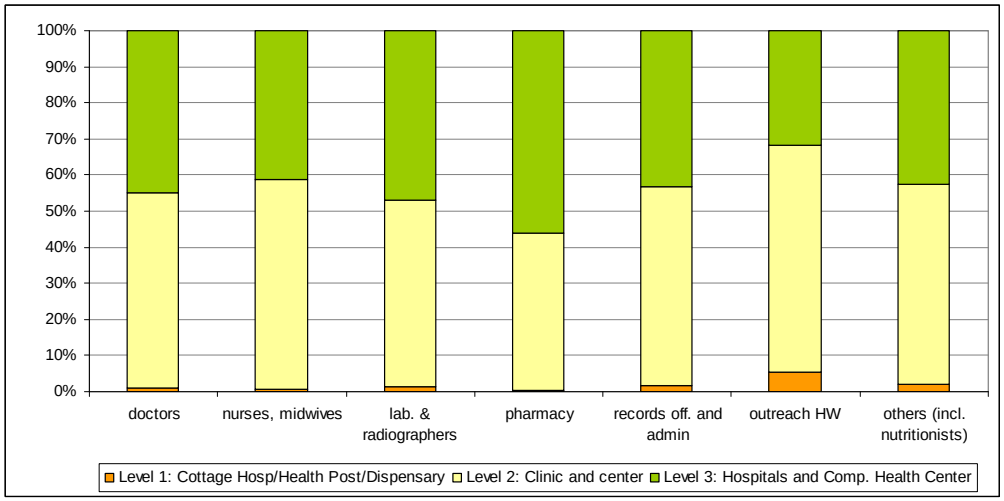
[3] Includes CHOs and CHEWs

[4] Includes medical interns (house officers), environmental health officers, and public health nursing officers

Distribution of private sector health workers by level of facility

Figure 3 illustrates the stock of private sector health workers in Nigeria, by the level classification scheme. There are disproportionately more pharmaceutical staff in level 3 considering the number of facilities and total health worker stock in this level. Similarly, level 1 has a high share of outreach health workers, despite the very small number of such facilities in Nigeria. Doctors and nurses are more evenly distributed across levels 1 and 2, in line with the number of facilities and total staff strength.

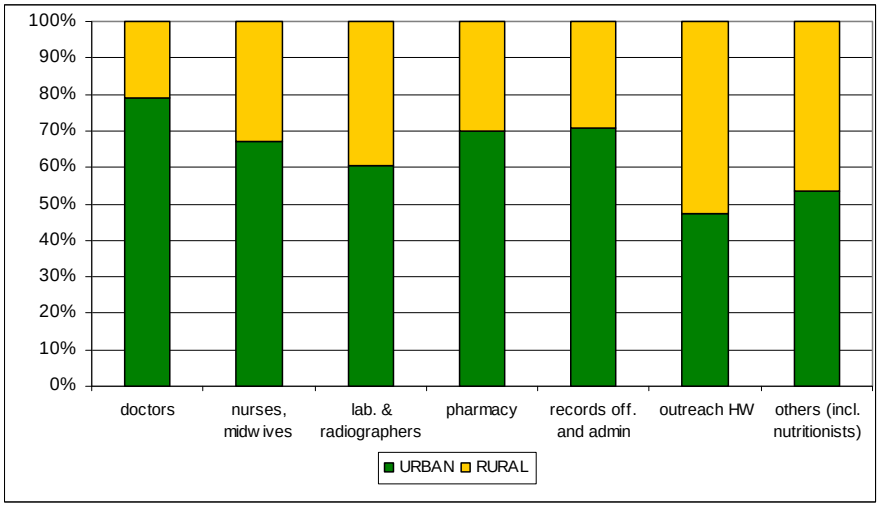
FIGURE 3. DISTRIBUTION OF PRIVATE SECTOR HEALTH WORKERS BY LEVEL OF FACILITY, 2008



Distribution of private sector health workers by urban or rural location

Though one in 1.8 Nigerians lives in a rural area, rural private health facilities account for only one in five of private sector doctors (Figure 4). The situation for nurses is only slightly improved; one in three private sector nurses or midwives work in rural areas.

FIGURE 4. DISTRIBUTION OF PRIVATE SECTOR HEALTH WORKERS BY LOCATION, 2008



This pattern matches the imbalance seen for public sector health workers. An urban resident has access to nearly three times more public sector doctors and two times as many nurses/midwives compared with a rural resident, as seen in Table 9 (Chankova et al. 2006).

TABLE 9. HEALTH WORKERS PER 100,000 PERSONS IN THE POPULATION BY LOCATION, NIGERIA

Cadre	Private Sector*		Public Sector	
	urban	rural	urban	rural
Doctors	28	6	20[1]	7[1]
Nurses, midwives	63	24	121	64
Laboratory staff	9	4	15	9
Pharmaceutical staff	3	1	11	8
Records off. and admin	9	3	-	-
Outreach health worker	2	2	51[2]	79[2]
Others (incl. nutritionists)	21	14	-	-
Total	134	55	-	-

Note: Population figure used = 140,003,542 from the 2006 census; 56% rural, 44% urban. * Source: Chankova et al. 2006.

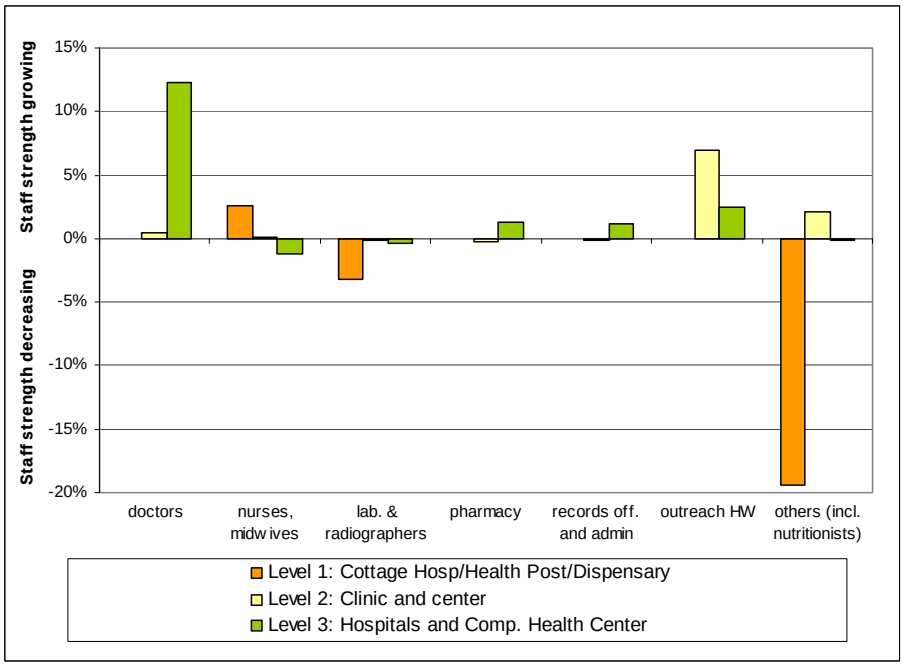
[1] Does not include medical interns (house officers)

[2] Includes CHOs and CHEWs

5.3 NET GROWTH PER YEAR IN HEALTH WORKERS AT THE FACILITY LEVEL

For projecting the private sector workforce stock into the future, the average net growth rate in staff at the facility level was estimated from the survey data by comparing rates of entries with rates of exits. These rates vary by cadre and then by the level of the facility (Figure 5).

FIGURE 5. NET GROWTH PER YEAR (ENTRIES - EXITS) BY CADRE, IN FACILITIES BY LEVEL, NIGERIA



The rates were estimated from facility responses for staff flows in years 2006-07 and 2007-08. Of note are net growth rates for doctors in the level 3 facilities and 'others' in the level 1 facilities. The latter value is difficult to interpret, given the small size of the facilities and the sample, such that even limited attrition could have a large effect on the average estimated net growth or net attrition reported. However, the rapid net increase in the numbers of doctors in the average level 3 facility is significant. Is this growth at the expense of qualified doctors in public sector facilities? There is attrition (loss) of doctors from the public health sector, about 2.34 percent of the stock of doctors per year (Chankova et al. 2006). Private sector attrition rates for nurses/midwives are fairly high (Table 10). Many of the staff leaving in fact emigrate (Figure B.4, Annex B) – the 'medical brain drain' from Africa is a factor for private sector staff as well.

TABLE 10. ENTRIES AND EXITS AS A PERCENTAGE OF TOTAL STAFF BY CADRE, 2008

Cadre	Private	Public*
	New graduate entries only	
Doctors	13%	7%
Nurses, midwives	10%	1%
Laboratory staff	5%	3%
Pharmaceutical staff	3%	3%
Records off. and admin	3%	-
Outreach health worker	14%	-
Others (incl. nutritionists)	7%	-
Cadre	**Private sector only**	
	Total entries	**Total exits**
Doctors	16%	8%
Nurses, midwives	11%	12%
Laboratory staff	8%	11%
Pharmaceutical staff	10%	6%
Records off. and admin	6%	4%
Outreach health worker	22%	11%
Others (incl. nutritionists)	10%	6%

Given the high rates of recruitment of new graduates, private sector clinics and centers (level 2) in our sample had a nearly zero net attrition rate for nurses and laboratory workers (Figure 5). In comparison, the average public health sector facility was losing nurses and midwives at a rate slightly higher (1.43 percent per year) than the increase (1.14 percent) due to new nursing graduates (Chankova et al. 2006).

The size of flow of new graduates into the public or private health sector is a sign of the attraction of that form of occupation to young, qualified workers. The top half of Table 10 shows this flow in relative terms by comparing the estimated number of new graduates entering either the private or public health sector as a proportion of the existing staff in that sector. For the private sector, this was calculated based on the average of survey responses on the number of new graduates entering the sampled facilities for the years 2006 and 2007. These average entry rates were extrapolated to the entire private sector.

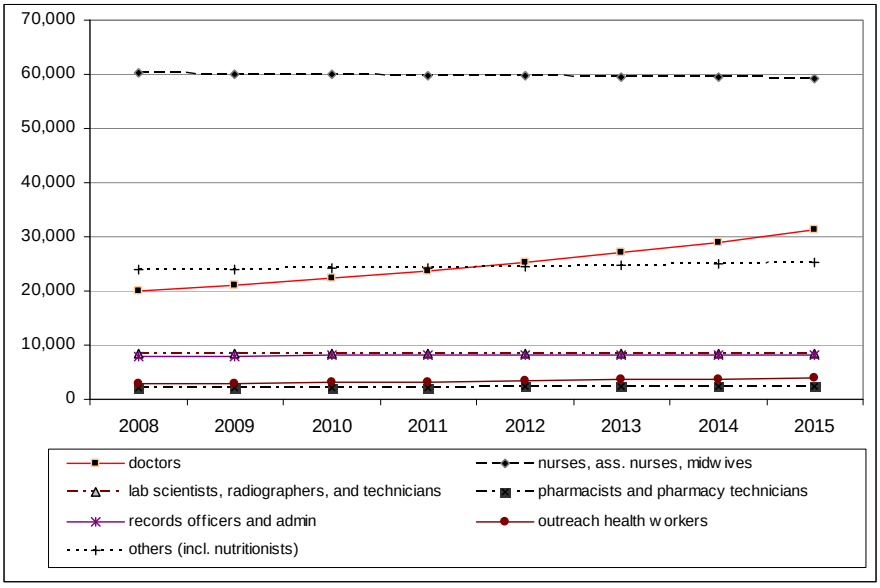
From Table 10, it can be inferred that the private sector is relatively more attractive for new doctors as well as nurses and midwives than the public sector. However, for nurses and midwives, the private sector hospitals do display high turnover (rapid entries and exits), with total exits for the cadre matching the total entries. Other sources of new staff entries for a facility in the survey were transfers from other private sector facilities (a small source) and secondments from the public sector (almost negligible). The

high level of turnover in nursing staff in the private sector is a threat to the building of an experienced cadre with depth of knowledge in Nigeria-specific medical care. It is worth exploring whether the exits are due to outmigration of nurses.

5.4 PROJECTED SIZE OF THE PRIVATE HEALTH SECTOR WORKFORCE IN NIGERIA

Using the net growth rates above, and the stock of health workers by cadre and level of facility (background data for Figure 3), we projected the total stock by cadre in Nigeria till the year 2015. The curve for private sector doctors in Figure 6 shows a clear rise, from fewer than 20,000 to more than 30,000, while the stock of other cadres remains almost stable. The caveat is that the projected stock is based on two years of flow data.

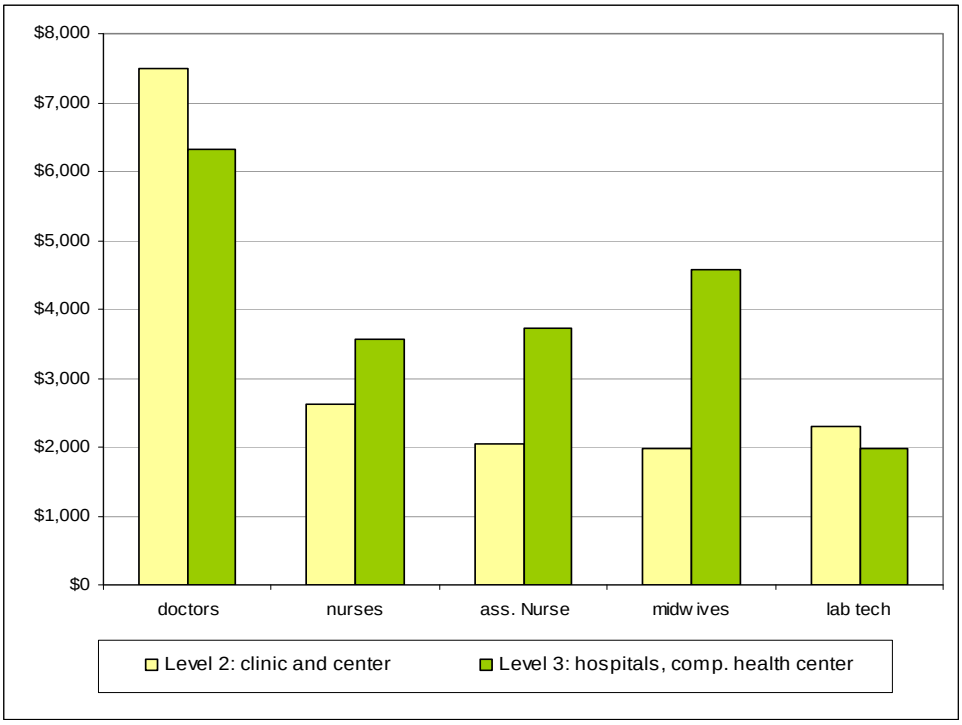
FIGURE 6. PROJECTED STOCK OF PRIVATE HEALTH SECTOR WORKERS BY CADRE, 2008-15



5.5 SALARIES OF HEALTH WORKERS IN THE NIGERIAN PRIVATE SECTOR

In Figure 7, which shows the average salary of full-time workers, the level 1 private health facilities (cottage hospitals, dispensaries, health posts) were not included because of a lack of data in the sample. The salary of doctors was markedly lower in hospitals and comprehensive health centers (level 3) compared with clinics and centers (level 2). This goes against the pattern for most of the other cadres and is counterintuitive given the higher levels of specialization at level 3 and the complexity of cases.

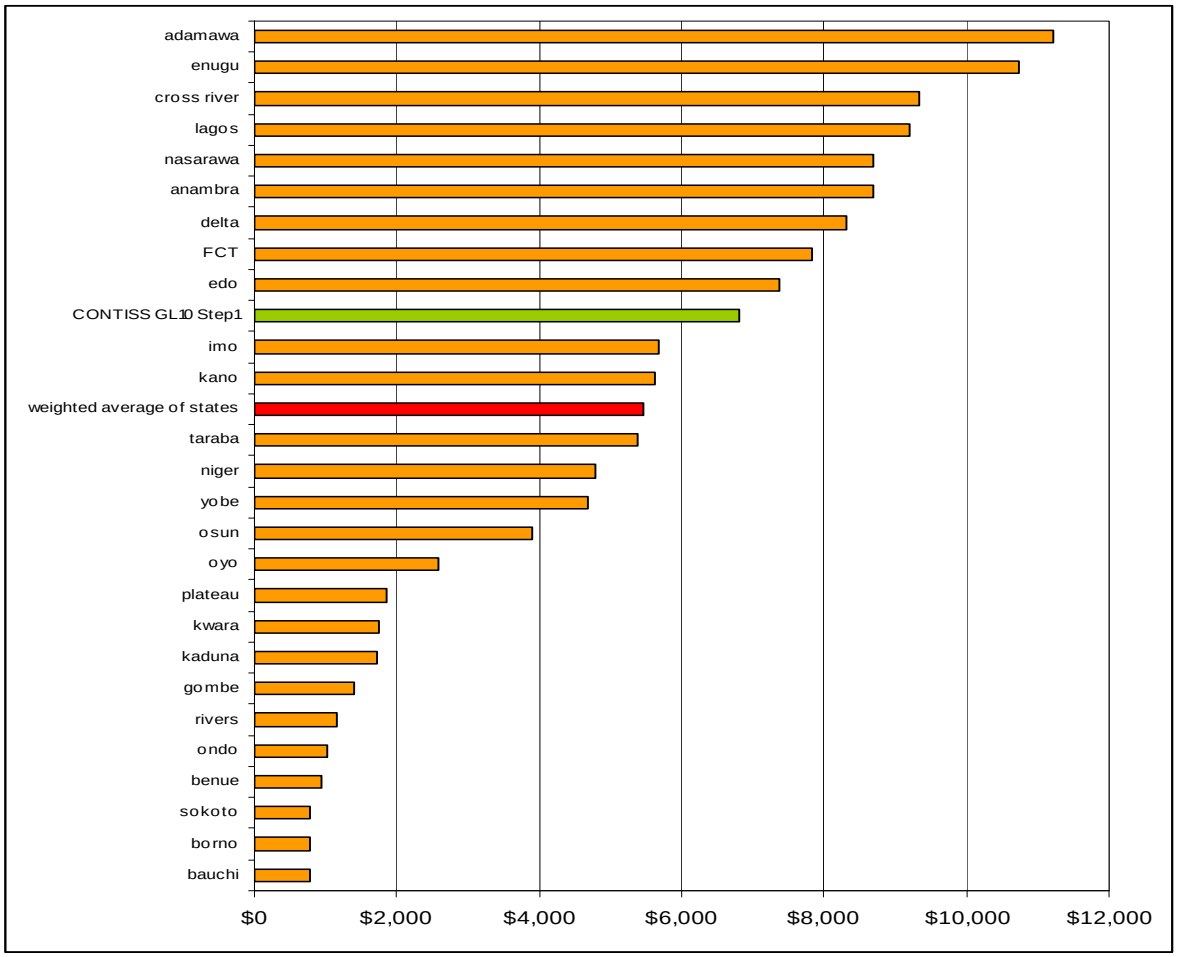
FIGURE 7. FULL-TIME ANNUAL SALARIES IN PRIVATE SECTOR FACILITIES, 2007 (US$*)



* Converted using average US$: Nigerian naira exchange rate of 1:128 for 2007-2008

Figure 8 compares the average annual salary for doctors in private sector facilities across states with the recommended salary for entry-level public sector doctors in tertiary institutions from the FGN salary scale (Consolidated Tertiary Institutions Salary Structure [CONTISS] grade level [GL] 10).

FIGURE 8. PRIVATE SECTOR FULL-TIME DOCTORS' ANNUAL SALARIES BY STATE, 2007 (US$)

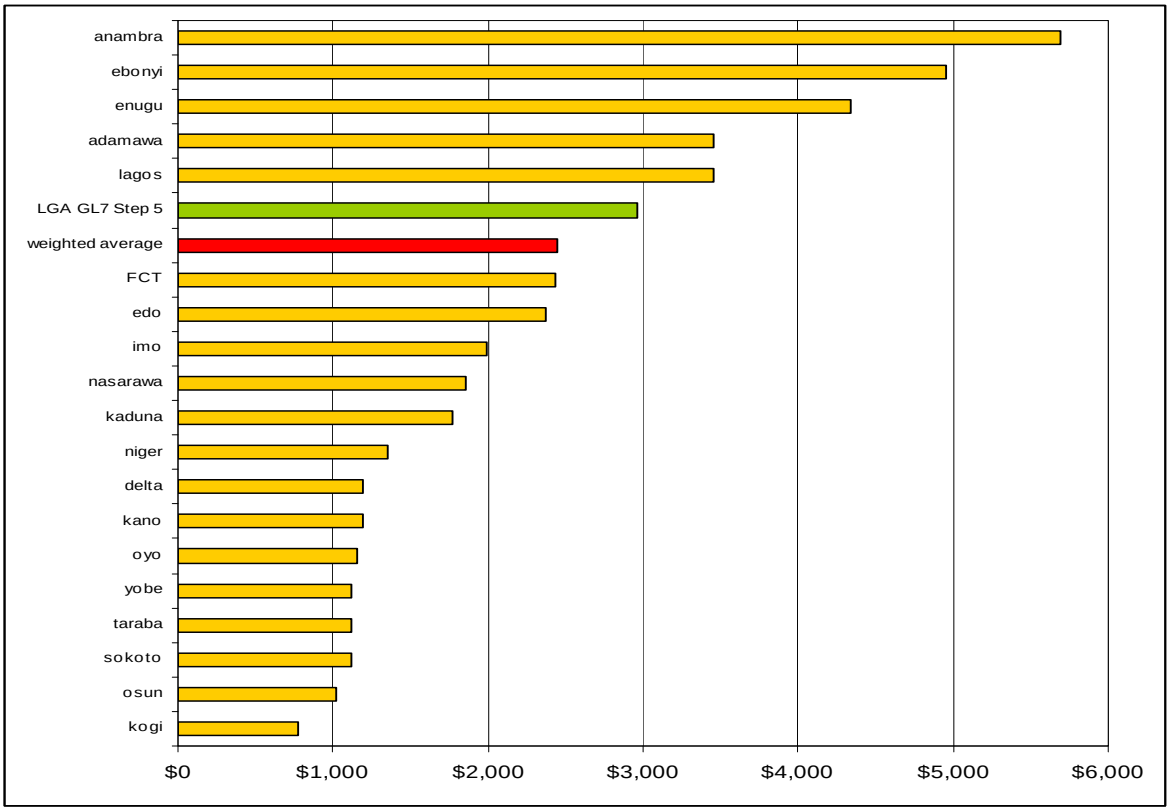


In most states, salaries for private sector doctors were below those of their public sector counterparts. The weighted state average private sector salary is shown, where the weights used are the number of facilities in the sample from each state. The weighted average private sector salary is also lower than the CONTISS value. This finding was unexpected given the prior analysis of attrition, which showed that the private facilities attract new graduates at a higher rate. Therefore, desire to work in the private sector cannot be attributed to better remuneration. It is also counterintuitive given the relatively higher rates (total and per facility) of doctors within the private sector.

Private sector doctors practicing in southern Nigeria (South East, South West, and South South) earn the highest wages. Southern states have the highest proportion of private and public health facilities in Nigeria (Figure 1). This concentration of health facilities and the potential competition for staff might explain why salaries for doctors are higher in the southern zones. This logic is borne out by the fact that the doctors practicing in the North Central zone earn the second highest salaries, and this zone also has the next highest number of private facilities after the southern zones.

The salaries of nurses (Figure 9) show a similar pattern. The highest salaries are in the states of the three southern zones and the North Central zone. The salaries of private sector nurses are compared with the local government salary scale grade 7 (LGA GL7, Step 5), representing a public sector nurse/midwife of a few years of experience. In several states, private sector nurses are paid much less than the LGA GL7 salary rate. Similar charts for private sector laboratory workers and midwives are in Annex B.

FIGURE 9. PRIVATE SECTOR FULL-TIME NURSES' ANNUAL SALARIES BY STATE, 2007 (US$*)



* Converted using average US$: Nigerian naira exchange rate of 1:128 for 2007-2008

5.6 CHAPTER CONCLUSIONS

Nigeria's private health sector has fewer health workers than the public health sector, which is expected given the concentration of the private health facilities in a few geographic zones and the lower number of facilities overall. However, the private health sector has more than its proportionate share of Nigeria's doctors. These doctors are concentrated in urban areas, a pattern also repeated for public sector doctors. This raises some concern for the access to quality health care for Nigeria's rural population.

The explanation may be that private health facilities are attracting new graduates (doctors as well as nurses) at a higher rate than public health facilities. This cannot be explained by salaries – the average (weighted) salary for doctors or nurses is lower than comparable salaries in the public sector. If the entry rates from 2008 continue, the stock of private sector nurses, given the attrition, will be almost constant in the future. However, for doctors, the net rate of growth is positive which means that the total stock will grow over time, potentially widening the gap with the public sector stock.

6. KEY FINDINGS ON THE SERVICES PROVIDED BY PRIVATE HEALTH FACILITIES

This chapter provides details of the various health services provided by the sampled facilities from the Nigerian private health sector. It provides estimates of the number of facilities in Nigeria providing a type of service, by levels of facilities. The estimated upper limit of the service load that can be provided by the private health sector is estimated for each of the specific services. It also discusses the basic consultation fees charged by the facilities, and compare these fees across Nigerian states. Conclusions of the chapter are presented at the end.

6.1 THE NIGERIAN CONTEXT FOR HEALTH SERVICES PROVISION

Nigeria's national MDG targets for 2015 are to first halt and then begin to reverse the spread of HIV/AIDS and the incidence of malaria and other major diseases; reduce under-five mortality by two-thirds to 49 or less per 1,000 live births; and reduce the maternal mortality ratio by three-quarters, to less than 400 per 100,000 births. Progress toward reaching the MDGs in Nigeria has been very slow and the MDG Status Report for Nigeria 2004 claims that the country is "unlikely" to reach any of the three health-related MDGs (FGN 2004). As a result, there is interest in learning what the private health sector can provide toward meeting the health MDG targets. The Nigeria HIV/AIDS Service Provision Assessment (Amanyeiwe et al. 2009) covered this ground for HIV/AIDS services provided in the public and faith-based sectors. This study is referenced in the HIV/AIDS and TB sections below.

As we explore below the results from the survey, we should keep in mind the following questions about the participation of the private health sector in such provision: Are private health facilities active in providing essential services? How many patients access these services per year, and what is the upper limit on the service load handled by the private sector given the likelihood of provision? What does this say, if anything, about the need for and feasibility of expansion or scale-up of essential health services through the private sector? Chapter 7, which focuses on the overall conclusions of this study, will ask and answer the question: after combining what we have learnt about health worker availability and the services provided in the private sector, what are the possibilities for and constraints on such expansion?

6.2 HIV/AIDS SERVICES IN NIGERIAN PRIVATE HEALTH FACILITIES

For HIV/AIDS, Nigeria intends to initiate 350,000 patients on ART, reach nearly 3.5 million people with HIV voluntary counseling and testing services (VCT), and avert 40,000 new infections in children through prevention of mother-to-child transmission (PMTCT) with PEPFAR support. Public sector support for ART is crucial for those HIV/AIDS clients who cannot afford out-of-pocket expenses. However, it is interesting to note the level at which the private health sector is active in HIV/AIDS services, since many HIV/AIDS clients in Nigeria do choose to seek care in the private sector, which

may reduce the burden on the public sector. The provision of HIV/AIDS services through the private sector in Nigeria is presented in tables and figures in this section. For comparison purposes, we first review some results from the public sector reported in the Nigeria HIV/AIDS Service Provision Assessment (Amanyeiwe et al. 2009).

According to the assessment, 68 percent of all public facilities offer VCT services. However, the availability of TB treatment (36 percent of all facilities) and PMTCT (25 percent of all) is much lower and ART availability is even lower (7 percent of all). At the secondary level, almost all public facilities provide VCT services but the availability of other HIV services was less comprehensive. Other than VCT, HIV service availability at the primary level of the public sector is limited. Less than one-quarter of primary-level facilities offer PMTCT, 31 percent offer TB services, and ART is generally not provided (only 4 percent of like facilities).

Some of these trends continue with our sample of private facilities (Table 11). The level 1 facilities – somewhat analogous to the base of the primary level in the public sector study – do not provide ART or PMTCT at all, but the likelihood that TB as an opportunistic infection (OI) services would be provided in a level 1 private facility was higher than for general TB services in the primary public facility (33.3 percent vs. 31 percent). The rate of VCT provision was lower in the private level 1 facility; 27.3 percent vs. 64 percent in the same comparison.

TABLE 11. PERCENTAGE OF PRIVATE FACILITIES THAT PROVIDE SPECIFIC HIV/AIDS SERVICES

Average % by level (weighted)	VCT	ART	PMTCT	TB as OI
Level 1: Cottage hosp/health post/dispensary	27.3%	0	0	33.3%*
Level 2: Clinic and center	29.2%	3.6%	9.5%	10.1%
Level 3: Hospitals and comp. health center	54.5%	18.2%	20.7%	26.4%
Total	39.3%	9.3%	13.7%	16.7%

Note: Health posts are not included in these calculations.

* Only in cottage hospitals. Dispensaries and health posts do not provide any such services in our sample.

Fewer level 2 private facilities – analogous to the apex of the primary level in the public sector – provided HIV services. Related rates in Table 11 are lower than the public sector in the Nigeria HIV/AIDS Service Provision Assessment except for ART, where they are roughly similar (3.6 percent of level 2 facilities vs. 4 percent of primary public facilities). The proportion of level 3 facilities – analogous to the secondary level in the public sector – providing HIV services were also lower than the comparable proportions in the public sector. For example, 96 percent of secondary public facilities provided VCT, compared with 54.5 percent of the level 3 private facilities. While 18.2 percent of level 3 facilities provided ART, 21 percent of secondary public facilities did the same. Overall 28 of the 300 private health facilities surveyed for this study provided ART services, or 9.3 percent. In comparison, 13 percent (N=31) of 232 public facilities spanning secondary and primary levels provided ART. After sample weighting of these percentages for levels, this rate reduces to 7 percent for all public facilities.

Annex B provides additional data on rates of provision of HIV/AIDS services by ownership and type of private sector facility (beyond level of facility).

Even if the rates of HIV/AIDS service provision expressed as a proportion of facilities are lower in the private sector, the implication for the number of facilities in the aggregate are striking. According to the last available National Agency for the Control of AIDS (NACA) list, there were 36 for-profit, 10 FBO,

and 7 NGO service delivery points for ART (a total of 53 facilities).[10] However, if the low rates from our sample in Table 11 were extrapolated to the master list of private facilities, then about 596 private facilities have the potential to provide ART services in Nigeria (Figure 10). Even after allowing for possible bias due to non-representativeness of our random sample, the difference is large enough to merit discussion. An explanation may be that many more private facilities are engaged in out-of-pocket ART services that are not in the NACA list or that the services being provided are claimed as ART in our survey responses but are not actually the delivery of antiretroviral (ARV) drugs. The former explanation would fit the observation that many of the people living with HIV and AIDS in Nigeria do not currently have access to treatment even with recent scale-up of ART and may be seeking care in the out-of-pocket market.

FIGURE 10. ESTIMATE OF PRIVATE FACILITIES PROVIDING HIV/AIDS SERVICES IN NIGERIA, BY LEVEL

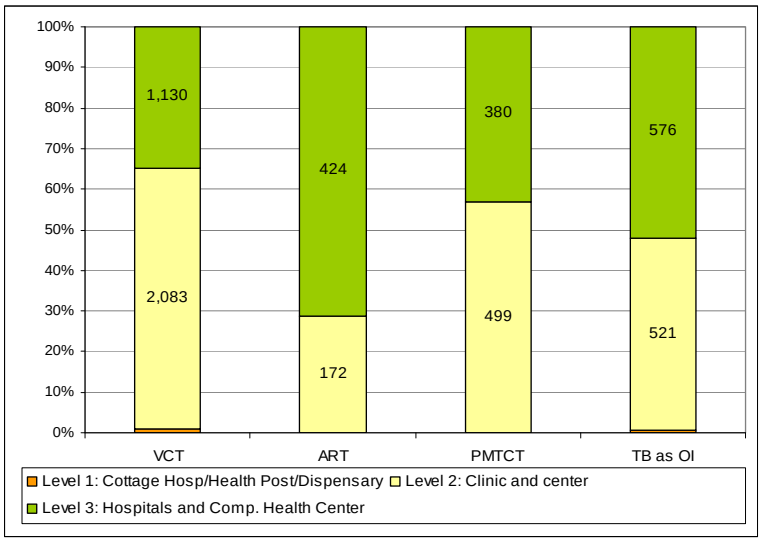


Table 12 provides the average annual service load for facilities with HIV/AIDS services.

TABLE 12. AVERAGE ANNUAL SERVICE LOAD (NO. OF PATIENTS) PER FACILITY: HIV/AIDS

Type of facility	VCT	ART	PMTCT	TB as OI
Basic health clinic	573	14[1]	442	265
Clinic	2,467	89[1]	29	23
Community health center	660	540[1]	2,100[1]	0
Comprehensive health center	1,702	16	79	1,750
Cottage hospital	810	0	0	0
Dispensary	585	0	0	0
Health center	864	270[1]	255[1]	386
Health clinic	232	0	0	0
Hospital	1,554	161	135	148
Maternity	140	0	28	7
Secondary hospital	455	69[1]	83	63
Primary health center	3,630	600[1]	160	200

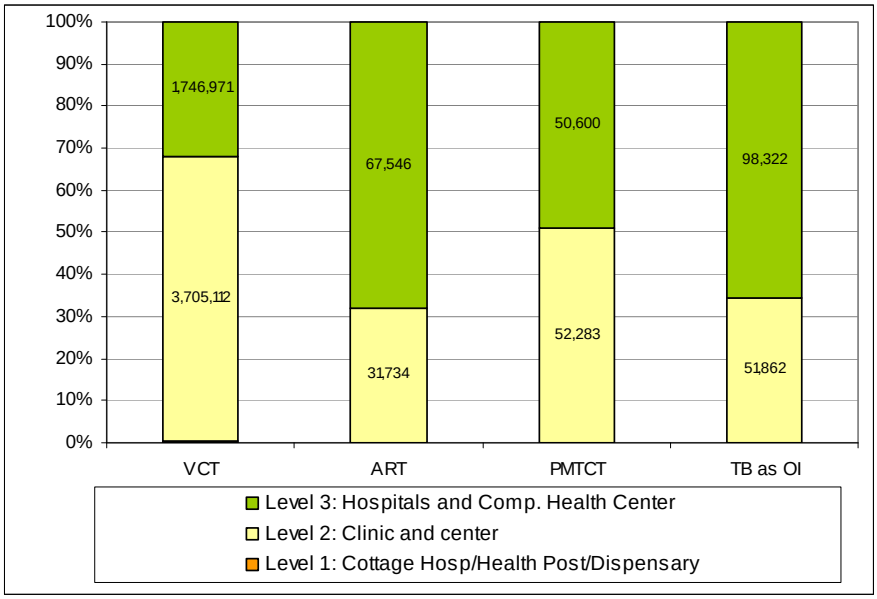
[1] These values are based on a single facility from the sample that reported providing the specific service.

[10] Available at: http://naca.gov.ng/index.php?option=com_content&task=view&id=157&Itemid=191(accessed 4/21/09).

Using the rates of service provision as a proportion of facilities by type of facility (background data to Table 11), and the service load values from Table 12, we estimated the total service load achievable for HIV/AIDS services in the private sector by level of facility, 1-3. For example, the likelihood of a primary health center offering ART services was only 0.077 (7.7 percent) based on our sample, and on application to the master list, this implied only 34 of 446 primary health centers offered ART services at the intensity of 600 clients per year. In total, the private primary health centers in Nigeria could provide 20,578 clients with ART services per year. After repeating this calculation for other types of facilities in level 2, we estimate the total for clinics and centers; then we repeat it for other levels as well.

The values in Figure 11 imply that the private health sector could provide for 5.5 million VCT client encounters per year, more than the total target for Nigeria, and for nearly 100,000 ART clients, or 29 percent of the target of 350,000. These estimates can be seen as optimistic or inherently conservative based on the perspective. For some of the HIV/AIDS services such as ART, the average annual client load or service intensity are based on only a few facilities in the sample that provide the service (Table 12), and hence could be higher or lower than the true population average. Toward the conservative perspective, the extrapolation of the service intensity to Nigeria is based on a significantly reduced set of facilities providing the services, based on the likelihood of provision estimated from the sample (Table 11). These observations also apply to the other major service categories in the following sections.

FIGURE 11. ANNUAL HIV SERVICES PATIENT LOAD ACHIEVABLE IN THE NIGERIAN PRIVATE SECTOR



6.3 TUBERCULOSIS SERVICES IN NIGERIAN PRIVATE HEALTH FACILITIES

Nigeria has ambitious targets for increasing case detection for TB from the 2007-08 range of 35 percent to 70 percent by 2010 (National Tuberculosis and Leprosy Control Program [NTBLCP] 2006). If this level of case detection is achieved, it will also imply a significant increase in the number of sputum-positive pulmonary and extra-pulmonary patients who will require TB treatment, especially Directly Observed Therapy, Short Course (DOTS). Nigeria is one of the countries in Africa with a formal public-private partnership program.

The Fund for Innovative DOTS Expansion through Local Initiatives to STOP TB (FIDELIS) supported the NTBLCP to implement a public-private partnership project in selected states. With its Global Fund round 5 grant, Nigeria aims at involving 350 private not-for-profit and 150 for-profit facilities in DOTS provision by 2010. By mid-2008, the Global Fund-supported program had trained 5,971 private for-profit, military, prison, and faith-based health staff in DOTS according to the mandatory performance reports.[11] Given these efforts, what is the current level of achievement in provision of DOTS and other TB health services in the private sector?

According to the Nigeria HIV/AIDS Service Provision Assessment (Amanyeiwe et al. 2009) after sample weighting, 28 percent of all sampled public facilities provided DOTS services. The likelihood of provision of DOTS by type of public facility varied significantly: 58 percent for secondary facilities and 22 percent for primary facilities. In comparison, the likelihood of DOTS provision was variable for private facilities: 14 percent for level 2 facilities excluding community health centers and health clinics and 24 percent for level 3. Table 13 provides a breakdown of these percentages by specific services.

TABLE 13. PERCENTAGE OF PRIVATE FACILITIES THAT PROVIDE SPECIFIC TB SERVICES, BY LEVEL

Average % by level (weighted)	DOTS only	OPD TB care only	DOTS and OPD TB care
Level 1: Cottage hosp/health post/dispensary	0%	9.1%	0%
Level 2: Clinic and center	5.7%[1]	4.9%[1]	9.8%[1]
Level 3: Hospitals and comp. health center	4.7%[2]	10.7%	19.8%
Total	4%	6.7%	13%

Note: OPD=outpatient department. Health posts are not included in these calculations.

[1] Does not include community health center or health clinic; these did not provide any TB services in our sample.

[2] There were no secondary hospitals in our sample that provided only DOTS.

In our data, 20 percent of level 2 private facilities (minus community health centers and health clinics) provided any TB services, i.e., DOTS only, or OPD TB only, or both DOTS and OPD TB services. Similarly, 35 percent of level 3 private facilities provided some TB services. Overall, 24 percent of the sampled private facilities provided some TB services. In comparison, after sample weighting, 36 percent of all sampled public and faith-based facilities provided some TB services according to the Nigeria HIV/AIDS Service Provision Assessment – with the specific rates being 31 percent of all primary and 68 percent of all secondary public facilities.

Therefore, public health facilities are more likely in general to offer DOTS or any TB services at all, vs. comparable private facilities. The smallest private facilities – level 1 – were likely to only provide outpatient TB services. Figure 12 estimates the total number of facilities in Nigeria by level that provide the specific TB services, using the same methodology as discussed for HIV/AIDS in the previous section. We have no data on the question whether the DOTS services provided in these private facilities meet the NTBLCP norms, or if physicians prescribe non-standard drugs for TB. These issues are the focus of continuing public-private partnership efforts from the NTBLCP and partners, and should be the focus of a detailed study.

[11] Based on the disbursement report dated October 2008, available from the Global Fund to Fight AIDS, Tuberculosis and Malaria, http://www.theglobalfund.org/grantdocuments/5NGAT_1184_498_gpr.pdf (accessed 4/21/09)

FIGURE 12. ESTIMATE OF PRIVATE FACILITIES PROVIDING TB SERVICES IN NIGERIA, BY LEVEL

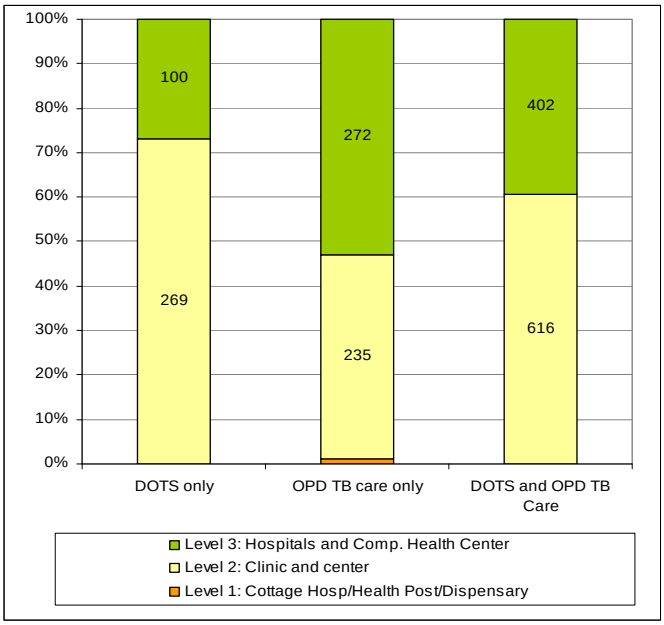


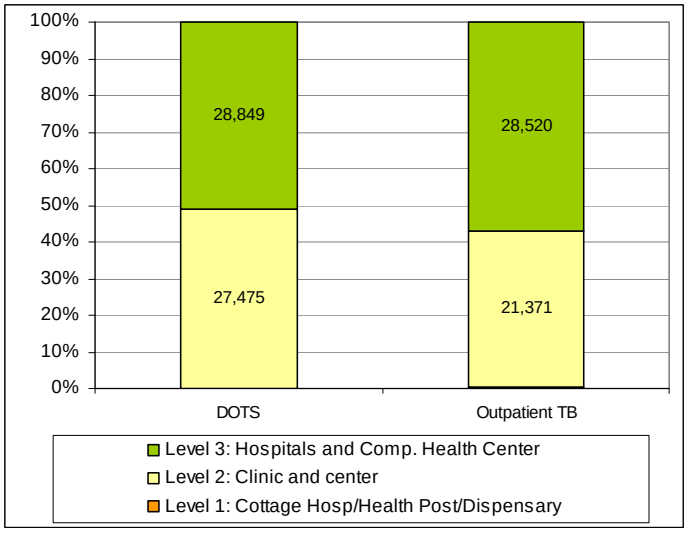
TABLE 14. AVERAGE ANNUAL SERVICE LOAD (NO. OF PATIENTS) PER FACILITY, TB SERVICES

Type of facility	DOTS	OPD TB
Basic health clinic	56	63
Clinic	17	19
Community health center	N/A	N/A
Comprehensive health center	196	233
Cottage hospital	0	30[1]
Dispensary	0	0
Health center	54	10
Health clinic	N/A	N/A
Hospital	56	41
Maternity	6	8
Secondary hospital	5	23
Primary health center	102	78

[1] These values are based on a single facility of the type from the sample that reported providing TB services.

While Table 14 lists the service intensity for TB-related activities in private health facilities, Figure 12 extrapolates these service intensities to the all-Nigeria level with the help of background data to Table 13 (likelihood of service provision by type rather than level of facility). It is assumed that facilities, by type, with only DOTS and those with both DOTS and OPD TB, had the same annual service intensity for DOTS clients. The same assumption was made for the annual OPD TB service load in Figure 13.

FIGURE 13. ANNUAL TB SERVICES PATIENT LOAD ACHIEVABLE IN THE NIGERIAN PRIVATE SECTOR



According to Figure 13, the private health sector could make a significant contribution to DOTS if the rates of service provision and service intensity as seen in this sample survey also apply to the overall sector. In 2007, the public health sector provided DOTS to approximately 70,000 individuals across Categories I (new cases), II (retreatment), and HIV-positive patients with TB referred for DOTS. The private health sector could serve up to 56,325 clients, or an additional 80 percent (Figure 13). The implications of the private sector 'achievable load' are subject to caveats as expressed for the HIV/AIDS section above.

6.4 MALARIA SERVICES IN NIGERIAN PRIVATE HEALTH FACILITIES

Malaria is a major health problem in Nigeria, with an estimated 397 cases per 1,000 in 2006.[12] It is by far the most important cause of morbidity and mortality in infants and young children: about 75 percent of malaria deaths occur in children under five. One in 10 maternal deaths is due to malaria. The disease accounts for up to 40 percent of all OPD visits.[13] Given this magnitude of need, access to malaria treatment requires involving all sectors.

Almost all (98 percent) of public facilities provide malaria services (Amanyeiwe et al. 2009). From our data, all private facilities in the survey also provided some form of malaria services (Table 15).

[12] WHO. World Malaria Report, 2008, Nigeria country profile, http://www.who.int/malaria/wmr2008/MAL2008-CountryProfiles/MAL2008-Nigeria-EN.pdf (accessed 4/21/09).
[13] Nigeria's Round 4 Global Fund Proposal for Malaria, www.theglobalfund.org/programs/grant/?compid=808&grantid=321&lang=en&CountryId=NGA (accessed 4/21/09).

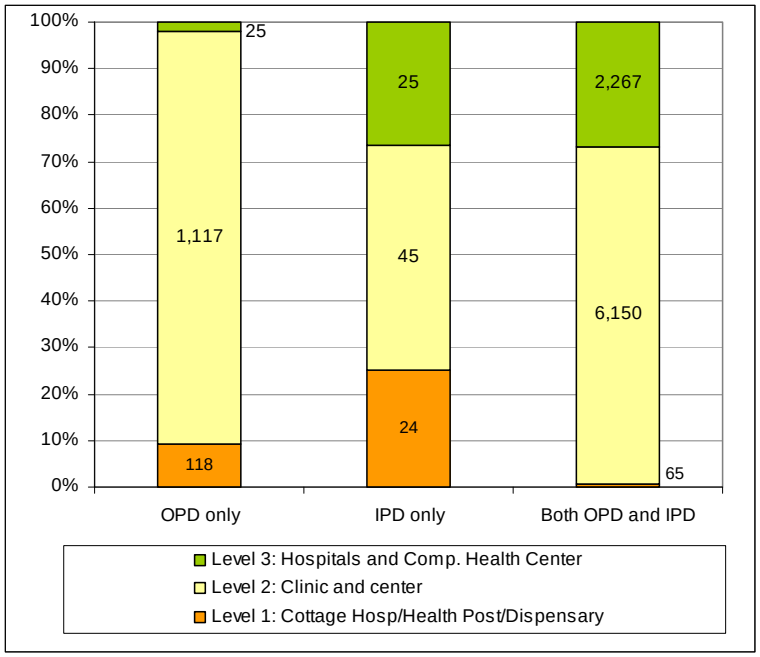
TABLE 15. PERCENTAGE OF PRIVATE FACILITIES THAT PROVIDE SPECIFIC MALARIA SERVICES

Average % by level (weighted)	OPD Only	IPD Only	Both OPD and IPD
Level 1: Cottage hosp/health post/dispensary	45.5%	9.1%	45.5%
Level 2: Clinic and center	17.1%	1.3%	81.6%
Level 3: Hospitals and comp. health center	0.8%	0.8%	98.3%

Note: IPD=inpatient department

Based on the percentages from Table 15, a large number of private sector facilities do supplement the public provision of malaria services. Higher-level private facilities (clinics, centers, hospitals) are more likely to have both inpatient and outpatient malaria care available. However, our survey did not include questions for the private facilities on the availability of artemisinin-based combination therapy (ACT) or intermittent presumptive treatment (IPT) for pregnant mothers. These are important factors in gauging if the malaria services available in the private sector are adequate and follow clinical guidelines prescribed by the FGN.

FIGURE 14. ESTIMATE OF PRIVATE FACILITIES PROVIDING MALARIA SERVICES IN NIGERIA, BY LEVEL

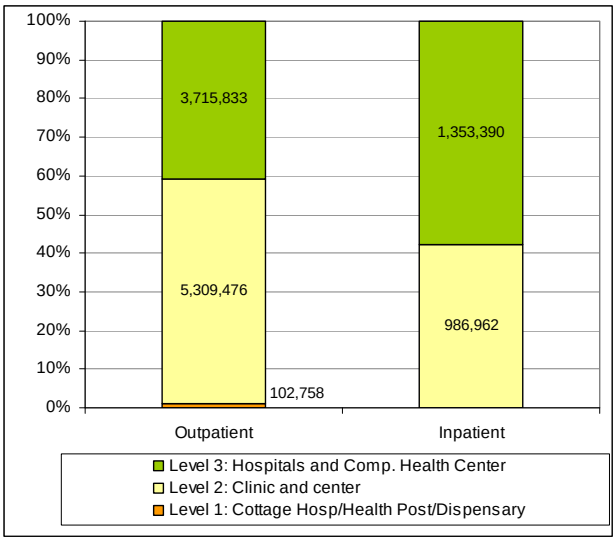


Based on the survey responses on the service intensity, Table 16 and Figure 15 report on the annual service load by type of facility and the total malaria client load achievable in the Nigerian private sector.

TABLE 16. AVERAGE ANNUAL SERVICE LOAD (NO. OF PATIENTS) PER FACILITY: MALARIA SERVICES

Type of facility	OPD	IPD
Basic health clinic	444	135
Clinic	986	182
Community health cent	313	127
Comprehensive health	943	388
Cottage hospital	1,625	840
Dispensary	447	48
Health center	458	63
Health clinic	532	184
Hospital	1,629	594
Maternity	245	78
Secondary hospital	1,256	322
Primary health center	698	281

FIGURE 15. ANNUAL MALARIA SERVICES CLIENT LOAD ACHIEVABLE IN THE NIGERIAN PRIVATE SECTOR



According to Figure 15, the private sector has the potential to account for up to 9.1 million malaria OPD client visits and 2.3 million inpatient admissions per year. Added together,[14] the private sector's provision of OPD and IPD treatment is 20 percent of the 57 million malaria cases in Nigeria for 2006.[15] This still leaves the major burden of treatment on the public sector.

[14] This may double count some cases since many of the OPD visits may have become inpatient admissions.
[15] WHO. World Malaria Report, 2008: Nigeria country profile. Op cit.

6.5 MATERNAL HEALTH SERVICES IN NIGERIAN PRIVATE HEALTH FACILITIES

While there is considerable variation in the figures, almost all agree that the state of maternal health in Nigeria is poor. Only 35 percent of mothers have skilled attendants at birth. As many as 54,000 mothers die each year and 1.1 to 1.62 million Nigerian mothers suffer from disabilities due to complications during pregnancy and childbirth each year.[16] The maternal mortality rate in 2005 was estimated at 1,100 per 100,000 live births, the joint eighth highest globally (World Health Statistics 2009).[17] Maternal mortality rates are highest in the North East zone.

The FGN has announced ambitious plans to tackle the high maternal mortality rate, aiming to reduce it by 20 percent by 2015. In 2009, 3,000 midwives would be trained and equipped to operate in rural health centers across the country.[18] Clearly, the role of the private health sector is the unknown factor in this equation – if the for-profit and FBO facilities provide access to a large number of clients and this care is of high enough quality, this will benefit the overall maternal health status in Nigeria.

Table 17 provides the details on service provision by the levels of facilities in the private sector from our survey. We do not have such rates for the public sector, so the comparison as in previous sections cannot be performed. Except for emergency maternal health services, the availability of care and treatment, both ante- and postnatal, is very good across the private health sector. Surprisingly, level 2 facilities (clinics and centers) are less likely to have maternal health services available than level 1. The level 2 rates are drawn down because of relatively low availability of maternal health services in health clinics and basic health clinics, of which the former are more numerous. Despite these facts, the extrapolation to the Nigeria level reveals that level 2 private facilities are the most numerous providers of a variety of maternal health services (Figure 16).

TABLE 17. PERCENTAGE OF PRIVATE FACILITIES THAT PROVIDE SPECIFIC MATERNAL HEALTH SERVICES

Average % by level (weighted)	ANC	Delivery	Emergency	PNC
Level 1: Cottage hosp/health post/dispensary	90.9%	93.4%	59.5%	90.9%
Level 2: Clinic and center	86.7%	81.3%	60.9%	78.3%
Level 3: Hospitals and comp. health center	100%	100%	89.9%	95.4%
Average % by level (weighted)	OPD only	IPD only	Both OPD and IPD	
Level 1: Cottage hosp/health post/dispensary	100%[1]	0%	100%[2]	
Level 2: Clinic and center	15.6%	1.2%	83.2%	
Level 3: Hospitals and comp. health center	3.7%	0%	96.3%	

Note: ANC=antenatal care, PNC=postnatal care

[1] Dispensary only. Health posts are not included in these calculations.

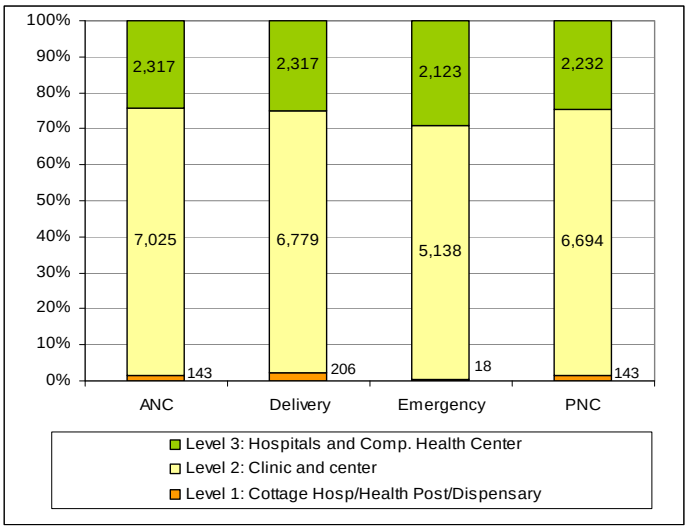
[2] Cottage hospital only. Health posts are not included in these calculations.

[16] The Futures Group International. Maternal and Neonatal Program Effort Index, http://pdf.usaid.gov/pdf_docs/PNACR879.pdf (accessed 4/21/09).

[17] WHO. World Health Statistics 2009. Op cit.

[18] Burden of maternal health, child survival – report on a USAID town hall meeting," online news report, http://www.thisdayonline.com/nview.php?id=141868 (accessed 4/21/09).

FIGURE 16. ESTIMATE OF PRIVATE FACILITIES PROVIDING MATERNAL HEALTH SERVICES IN NIGERIA, BY LEVEL



In Table 18, the service intensity for private health facilities is provided. Many of the facility types conduct 10-15 deliveries per month (120-180 annually). Specialized facilities such as maternity homes do not serve more maternal health clients than other level 2 facility types such as clinics and health centers.

TABLE 18. AVERAGE ANNUAL SERVICE LOAD (NUMBER OF PATIENTS) PER FACILITY: MATERNAL HEALTH SERVICES

Type of facility	ANC*	Delivery	Emergency Care	PNC
Basic health clinic	189	34	34	26
Clinic	383	91	91	74
Community health cent	519	169	169[1]	169[1]
Comprehensive health	408	151	151	79
Cottage hospital	612	153	153	50
Dispensary	109	85	85	34
Health center	663	82	82	84
Health clinic	59	19	19	12
Hospital	584	256	256	179
Maternity	351	121	121	102
Secondary hospital	1,321	689	689	505
Primary health center	253	67	67	111

* ANC includes: regular antenatal visit, lab test, IPT, and other diseases in antenatal period.

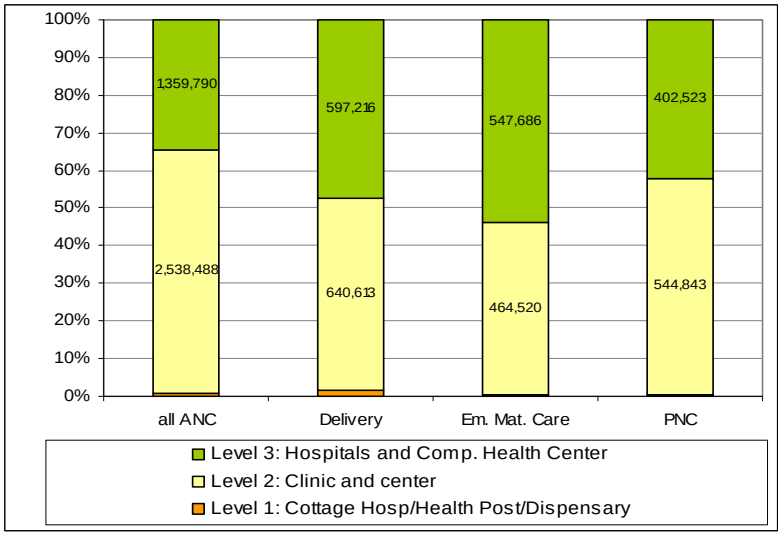
[1] These values are based on a single facility of the type from the sample that reported providing TB services.

According to the UN population database,[19] Nigeria will have on average about 5.97 million deliveries per year (medium estimate, 2005-10). Based on the results in Figure 17, the private sector can provide up to 3.9 million pregnant women with antenatal care, and attend and care for 1.25 million deliveries, or about 20 percent of the projected need. This still leaves the public sector to provide for about 80 percent of the total attended deliveries needed. It is not clear if this scale of provision does occur in the public sector. The private facilities provide postnatal care for about 1.01 million mothers, or

[19] World Population Prospects, the 2006 revision, http://data.un.org/Data.aspx?d=PopDiv&f=variableID%3A51#PopDiv (accessed on 4/21/09).

approximately 80 percent of the total in-facility deliveries in the private sector. While level 2 facilities are more active in the provision of antenatal care, users of private sector medical facilities disproportionately favor larger facilities for emergency care and deliveries, i.e., level 3 (hospitals and comprehensive health centers).

FIGURE 17. ANNUAL MATERNAL HEALTH SERVICES CLIENT LOAD ACHIEVABLE IN THE NIGERIAN PRIVATE SECTOR



6.6 FAMILY PLANNING SERVICES IN NIGERIAN PRIVATE HEALTH FACILITIES

According to the NDHS 2003, the contraceptive prevalence rate in Nigeria is only 8.9 percent for modern methods and knowledge of modern contraception methods remains low, especially in the north.[20] As awareness rises, the demand for contraceptive methods, especially those that require skilled medical advice or intervention, will also rise. The question may be asked whether the private sector can play a role in providing family planning services. The national social marketing program, which favors distribution through retail outlets of condoms and oral contraceptive pills (together these account for 70 percent of the modern methods used in Nigeria) has led to the diversion of increased clientele to the private sector, including those demanding injectable hormones (19 percent of all modern methods used for family planning) (Barnes et al. 2006).

The potential role in family planning services for small facilities such as dispensaries (pharmacies) and clinics with no regular doctor/physician has been defined by the FMOH. Licensed pharmacies can sell emergency contraception and pills without prescription. Nurses can counsel on family planning, initiate and resupply pills, and administer injectable contraceptives. This is borne out by our survey data: almost all level 1 facilities, which include dispensaries, provide pills and injectables. Cottage hospitals also conducted minor surgical procedures such as tubal ligation or vasectomies. Not all such small facilities provided condoms.

[20] Only 60 percent of women in the North East can cite even one modern method of contraception (NDHS 2003).

TABLE 19. PERCENTAGE OF PRIVATE FACILITIES THAT PROVIDE SPECIFIC FAMILY PLANNING SERVICES

Average % by level (weighted)	Tubal ligation/ vasectomy	Injection	IUD	Pill	Implant	Condom
Level 1: Cottage hosp/health post/dispensary	100%*	100%	0%	100%	0%	63.6%
Level 2: Clinic and center	18%	85%	58.5%	81.8%	8.4%	56%
Level 3: Hospitals and comp. health center	55.4%	75.4%	84.5%	86.5%	17.8%	47.7%
Average % by level (weighted)	OPD only	IPD only	Both OPD and IPD			
Level 1: Cottage hosp/health post/dispensary	86.4%	0%	13.6%			
Level 2: Clinic and center	60.6%	0.9%	38.6%			
Level 3: Hospitals and comp. health center	42.3%	2.2%	55.5%			

Note: IUD=intrauterine device. Health posts are not included in these calculations.

* Cottage hospitals only (small sample). Dispensaries do not conduct surgical procedures.

The availability of some family planning methods was lower in level 2 and 3 facilities than the smaller facilities. Many level 2 or 3 facilities do not have an on-site pharmacy, and hence may not be able to dispense contraceptives or condoms. This may explain why the likelihoods of condom distribution or pill distribution were lower than level 1. It does not explain the lower levels of tubal ligation and vasectomy service availability. However, as could be expected, the availability of more complex methods involving physician presence or consultation (IUD, implanted contraceptives) increased with the size of the facility. Larger facilities (levels 2 and 3) were also more likely to have inpatient family planning services, i.e., the complex implant or surgical procedures.

Despite the higher rates of availability for some family planning services in level 1 facilities, they are a small proportion of the overall count of private facilities providing such services (Figure 18). Level 2 clinics and centers dominate the availability of these services in the private sector, even for condom distribution and contraceptive pills. But from the level 1 facilities, cottage hospitals are surprisingly robust providers of injectable contraceptives, tubal ligation/vasectomies, and pills in terms of service intensity (Table 20). This means that level 1 has a share of the achievable family planning load in Nigeria from the private sector.

FIGURE 18. ESTIMATE OF PRIVATE FACILITIES PROVIDING FAMILY PLANNING SERVICES IN NIGERIA, BY LEVEL

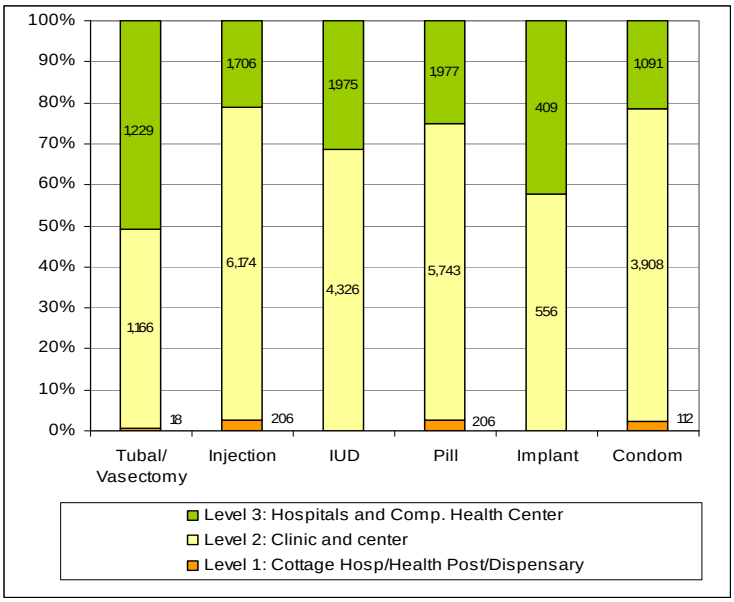


TABLE 20. AVERAGE ANNUAL SERVICE LOAD (NUMBER OF PATIENTS) PER FACILITY: FAMILY PLANNING SERVICES

Type of facility	Tubal ligation /vasectomy	Injection	IUD	Pill	Implant	Condom*
Basic health clinic	4	50	12	50	4	86
Clinic	3	153	28	198	1	152
Community health center	7	250	60	90	0	0
Comprehensive health	2	31	20	31	0	571
Cottage hospital	48	230	15	145	0	550
Dispensary	0	39	0	17	0	0
Health center	5	45	16	33	0	151
Health clinic	0	20	22	36	0	0
Hospital	7	46	35	49	17	318
Maternity	2	24	15	39	0	35
Secondary hospital	14	62	143	105	2	274
Primary health center	0	97	13	46	0	1,200

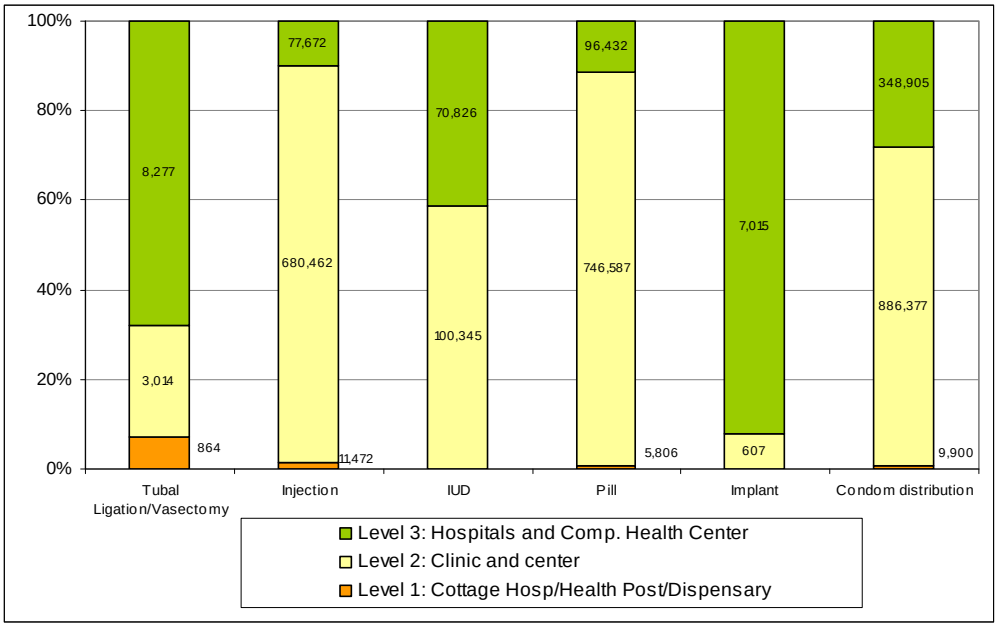
* Implies numbers of clients for condom distribution

The private health sector can provide modern family planning methods other than condoms for up to 1.81 million clients per year according to Figure 19. It can also distribute condoms for 1.25 million clients per year. Using the NDHS data on unmet demand, the Situation Assessment of Human Resources in the Public Health Sector (Chankova et al. 2006) estimated the target rates in 2010 for the use of various modern family planning methods, as a percentage of women age 15-49 years[21]. Given the total demand estimated from these target rates and a population of 32.3 million women in the age group (Nigeria Census 2006), the private sector could provide 35 percent of the demand for oral

[21] These rates are: 7.4 percent of women age 15-49 would use pills; 8.2 percent injections; 1.2 percent would use IUDs; 0.3 percent implants; and 0.5 percent tubal ligations. See Annex E, Chankova et al. (2006).

contraceptive pills, 29 percent for injectable hormonal contraceptives, 44 percent for IUDs, and 8 percent each for implants and tubal ligations based on the service load estimated in Figure 18.

FIGURE 19. ANNUAL FAMILY PLANNING SERVICES CLIENT LOAD ACHIEVABLE IN THE NIGERIAN PRIVATE SECTOR



Another perspective is as follows. Given that the population of women age 15-49 in Nigeria is about 32.3 million, and the last known contraceptive prevalence rate was 8.9 percent (modern methods), then by the definition of the latter, there are at least 2.9 million couples who would demand modern family planning methods annually. Given that the private health facilities – by a conservative estimate – easily meet this current demand, several competing conclusions are implied. First, that the true contraceptive prevalence in Nigeria is actually much higher and the rest is serviced by the public sector. After all, the Nigerian government targets a 2 percentage point rise in contraceptive prevalence per year. Second, we may have overestimated the contribution of the private sector in modern methods for family planning. Third, the contraceptive prevalence rate may only be a little higher today, and the contribution of the public sector for the remainder of the family planning need is not significantly larger than the private sector. The true picture cannot be discerned without a closer study of the family planning service across sectors.

6.7 CHILD HEALTH SERVICES IN NIGERIAN PRIVATE HEALTH FACILITIES

Just as in maternal health, Nigeria needs to make rapid progress in the provision of routine and episodic child health services. According to the NDHS, only 13 percent of children age 12-23 months were being fully vaccinated, and 27 percent had no vaccinations at all. In terms of nutrition, 38 percent of children were stunted, and 29 percent of children under five were underweight. The standard indicators of infant mortality rate (100 per 1000 births) and under-five mortality (201 per 1000 live births) were also very high, putting Nigeria in the list of countries with the worst achievement in child health.

The usage of curative services for older children also shows vast need for improvement. No treatment is sought for 31 percent of children with a fever or symptoms of an upper respiratory infection. Almost 20 percent of children with diarrhea receive no treatment (NDHS 2003).

Improving under-five and neonatal health status in Nigeria is closely tied to enhanced maternal health and family planning through the benefits of birth spacing. These considerations as encapsulated in Nigeria's Integrated Maternal, Newborn and Child Health (IMNCH) strategy should apply to the private sector's role in these services as well.

Private sector facilities are more likely to be involved in curative child health services (OPD and IPD) than in preventive efforts such as growth monitoring and immunization (Table 21). This fits our expectation that the public sector will play a large role in preventive health care, where there is more 'push' than 'pull' from the client or demand side (Figure 20). In fact, it is unexpected that the likelihood of level 3 private facilities providing growth monitoring and immunization services is 70.0 percent and 57.2 percent respectively, given user fees and the primarily preventive nature of the services. It will be instructive to consider these rates against service intensity rates in Table 22, below.

TABLE 21. PERCENTAGE OF PRIVATE FACILITIES THAT PROVIDE SPECIFIC CHILD HEALTH SERVICES

Average % by level (weighted)	Growth monitoring	Immunization	OPD curative	IPD
Level 1: Cottage hosp/health post/dispensary	41.8%	56.4%	100%	27.3%
Level 2: Clinic and center	49.3%	42.2%	85.5%	68.4%
Level 3: Hospitals and comp. health center	70.0%	57.2%	98.1%	97.1%
Average % by level (weighted)	OPD only	IPD only	Both OPD and IPD	
Level 1: Cottage hosp/health post/dispensary	100%1	0%	100%2	
Level 2: Clinic and center	26.8%	2.6%	70.6%	
Level 3: Hospitals and comp. health center	1.9%	1%	96.1%	

Note: Health posts are not included in these calculations. 1 Dispensary only. 2 Cottage hospital only.

FIGURE 20. ESTIMATE OF PRIVATE FACILITIES PROVIDING CHILD HEALTH SERVICES IN NIGERIA, BY LEVEL

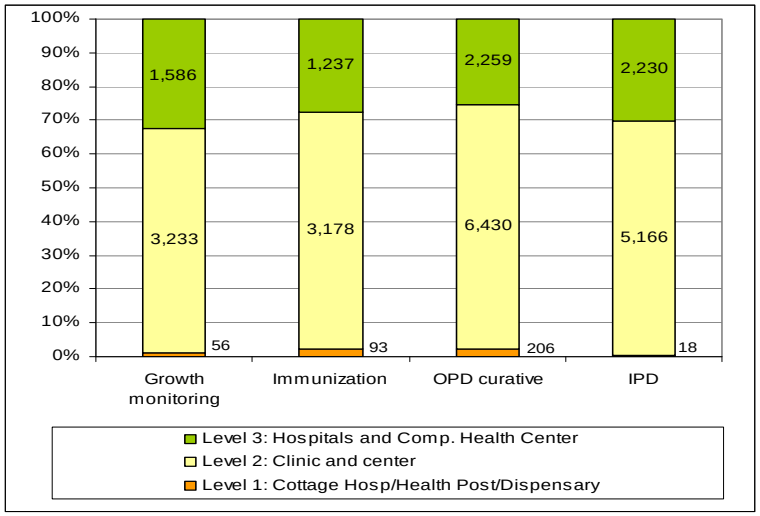
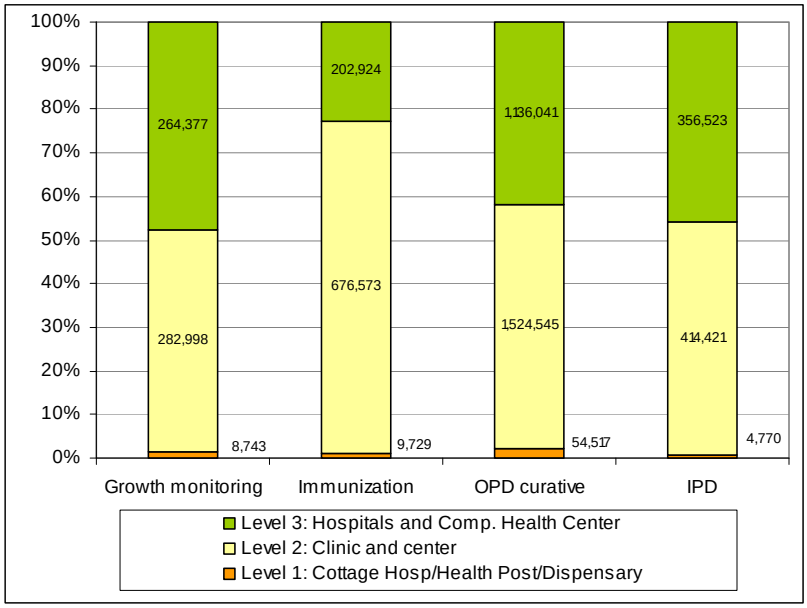


Table 22 provides the service intensity in terms of average annual client load by the specific child health service. Comprehensive health centers (level 3), cottage hospitals (level 1), and primary health centers (level 2) all are types of facilities that provide substantial levels of child health services, but are distributed across the three levels in our study. Therefore, service intensity does not seem to correlate with staff size in our sample of private facilities.

TABLE 22. AVERAGE ANNUAL SERVICE LOAD (NUMBER OF PATIENTS): CHILD HEALTH SERVICES

Type of facility	Growth monitoring	Immunization	OPD curative	IPD
Basic health clinic	79	64	134	77
Clinic	105	199	276	84
Community health center	250	275	261	135
Comprehensive health center	421	226	530	240
Cottage hospital	430	255	1,320	265
Dispensary	27	68	164	2
Health center	73	128	537	302
Health clinic	0	43	77	10
Hospital	165	161	499	159
Maternity	36	25	160	66
Secondary hospital	192	461	1,153	252
Primary health center	131	1,305	229	21

FIGURE 21. ANNUAL CHILD HEALTH SERVICES CLIENT LOAD ACHIEVABLE IN THE NIGERIAN PRIVATE SECTOR



According to our estimates, the private health sector in Nigeria could provide as much as 889,226 immunizations per year across the three levels of facilities, and handle up to 2.71 million OPD visits for children per year (Figure 21). This may indicate that there is significant demand for out-of-pocket child health services in Nigeria. It is hard to say if this is a significant load compared with the need or with what is handled by the public sector. Certainly, given the size of Nigeria's population and the potential for increasing the use of preventive and curative child health services, these service loads do not appear large. Very little can be said about the quality of the child health services provided in each level of the

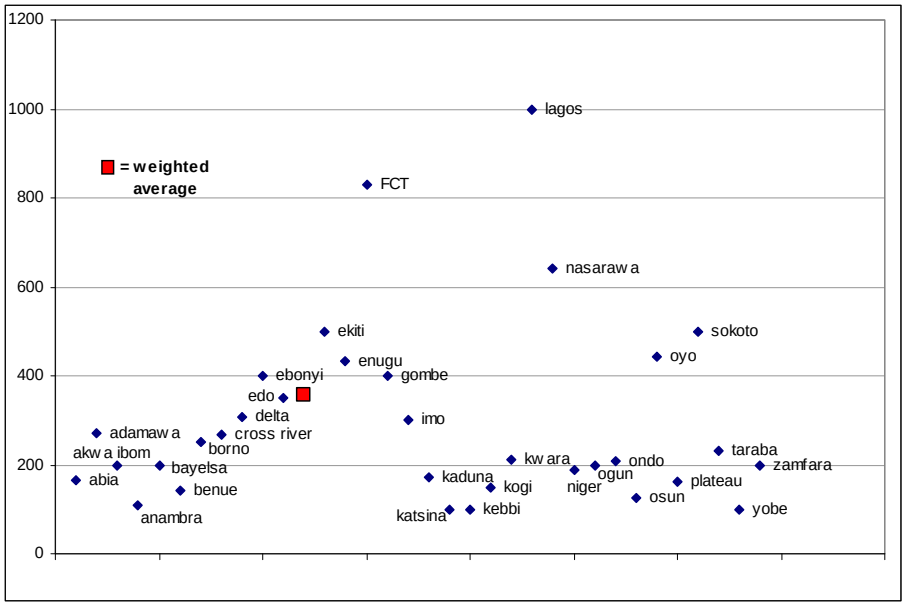
private health sector – a significant consideration if the indicators on mortality and morbidity in Nigeria's children are to be improved. Therefore, the quality of care for child health (and other services) in private facilities should be studied further.

6.8 USER FEES IN PRIVATE HEALTH FACILITIES

According to a WHO National Health Accounts analysis for Nigeria dated 2003, consumers pay 67 percent of health expenditures out-of-pocket, vs. 26 percent expenses being borne by government and 7 percent by private insurance and employers. While we do not have data to consider all costs incurred as out-of-pocket expenses, we can explore the issue of basic consultation fees in private facilities. Many doctors operating in private clinics and centers earn a fixed percentage of such fees on top of their base salaries.[22] Therefore, the facility owner has an incentive to keep such fees high.

The average consultation fees charged by private facilities varied considerably across primarily urban vs. primarily rural states. For example, the rates are relatively very high in Lagos and FCT states (Figure 22). In our sample, the consultation fee in an urban facility was likely to be 2.7 times that charged in a rural facility. Also, fees grew with the size of the facility – level 3 facilities (hospitals and comprehensive health centers) were likely to have consultation fees two times as high as level 2 facilities.

FIGURE 22. BASIC CONSULTATION FEES, PRIVATE SECTOR FACILITIES, NIGERIA (NAIRA)



The weighted average of the basic consultation fee across states (shown in Figure 22) was calculated with the number of sampled facilities from each state as weights. It is about US$3 (US$: Nigerian naira exchange rate of 1:118 for 2008). The minimum monthly wage in Nigeria for federal workers, set in 2000, is about Naira 7,500, or US$63 (Naira 5,500 for other workers). Therefore, the average basic consultation fee – which is only a part of the out-of-pocket cost – is almost 5 percent of the current monthly minimum government wage.

[22] Barnes et al. (2006), based on facility data.

A different perspective on the basic consultation fee is that the population living below US$2 a day (after adjusting for purchasing power parity) was almost 90 percent in Nigeria,[23] despite its recent achievements in raising GDP and exports. Given that figure, the average basic consultation fee in the private sector looks much less affordable.

6.9 CHAPTER CONCLUSIONS

While private health facilities are active in all priority diseases as well as essential health services, their level of involvement varies. This implies varying need, by service type, for the public sector to take up the burden of provision. Private health facilities could provide ART to as many as 100,000 patients, which is 29 percent of the target of 350,000 and 35 percent of the 288,000 people on ART in Nigeria currently (U.S. Government Nigeria Country Team 2009). The contribution toward VCT encounters is even more considerable – more than the total target for Nigeria. In DOTS services, the private sector could provide as much as 80 percent of the total service load achieved by the public sector in 2008. However, for malaria treatment, the burden of service provision falls on the public sector (80 percent of the cases) – but it is not clear that this requirement is fully met by public facilities.

For essential health services, in maternal health, the private sector could provide up to 20 percent of the projected need for attended deliveries. While it is hard to estimate the total current usage of modern methods for contraceptives, the contribution of the private sector in service provision in meeting the projected demand is significant for certain methods, as discussed above. However, the vast majority of clients for such methods would need to be serviced by the public sector if the 2010 targets are to be met. The private health sector in Nigeria could provide as many as 889,226 immunizations per year across the three levels of facilities, and handle up to 2.71 million OPD visits for children per year, signifying large demand for out-of-pocket child health services.

These figures speak to a large demand for private health provision, much above what would be required if the demand came only from a section of the population considered as natural users of paid health services such as the middle classes, or the urban population. The scale of provision hints at more broad-based use of private services, but at what cost? Our limited analysis of the private sector cost of treatment, focused on the basic consultation fee, implies that out-of-pocket costs are significant compared with the ability to pay. The high share of the private sector in health service provision should lead us to consider how the public or other subsidized health services can be improved in quality and accessibility so that the financial burden on the poor is reduced.

[23] United Nations Development Program. Human Development Report 2007/08, data page on Nigeria: http://hdrstats.undp.org/countries/data_sheets/cty_ds_NGA.html (accessed 4/23/09).

7. CONCLUSIONS AND RECOMMENDATIONS

It is often claimed that Nigeria's private health sector provides 60 percent of all health services.[24] This may be confused with another statistic – this time for sub-Saharan Africa in general – that 60 percent of health care is financed from private sources (mostly out-of-pocket expenditure of individuals), and about half of that spending flows to the private health sector, i.e., facilities (IFC 2007b). While the former statistic, if true, would attest to the size and importance of the private health sector vis-à-vis its role in reducing mortality and morbidity and meeting health MDGs, the second statistic mainly attests to the financial burden on individuals and, depending on the context, it could suggest that private health services come at a substantial cost.

In the first chapter, we raised the question that if scale-up of essential health services and priority diseases is envisaged through the private sector, we must investigate the ability of the sector. The characteristics of the private health workforce in terms of size, distribution, cadre, and salaries are important to evaluate whether the sector is adequate, well-positioned, and compensated sufficiently to handle a large – or larger – share of health service provision. The current scale of services provided in the private sector will provide evidence for what its share of health services is and hence what it can be. All of these issues help illuminate the first of the 60 percent statistics above.

Analysis of the user fees in private facilities provides the means to judge if the scale of provision through the private sector – if significant as a share of the total demand – is pro-poor, i.e., its significance for the needs of those Nigerians with limited ability to pay. This addresses the issue raised by the second 60 percent statistic from above – on the total expenditure out-of-pocket in a country like Nigeria.

7.1 HUMAN RESOURCES IN NIGERIA'S PRIVATE HEALTH SECTOR

The private health sector in Nigeria is much smaller than the public sector – about 45 percent the size – in terms of the total health workforce. However, it has more doctors than the public sector. There were 14 doctors, 43 nurses/midwives, six laboratory staff, and two pharmacy staff per 100,000 persons in the private sector. In comparison, the public had 13 doctors, 87 nurses and midwives, 13 laboratory staff, and nine pharmacists. The public sector appears to be the larger storehouse of medical skills and knowledge for Nigeria.

The availability of health workers in the private sector is skewed by location. Though one in 1.8 Nigerians lives in a rural area, rural private health facilities account for only one in five of the doctors working in the private sector. The situation for nurses is only slightly improved; one in three private sector nurses or midwives work in rural areas. However, this imbalance also exists for public health workers. The availability of health workers for the 56 percent of Nigerians who live in rural areas should be a matter of priority for policymakers. There are indications that the FMOH and SMOHs are

[24] See for example, DFID Health System Resource Centre. N.d., p. 3.

cognizant of this and are training health workers for rural service; in addition, incentives or mandatory service requirements may be required.

The private sector is afflicted by the same high levels of attrition seen in the public sector, but it is much better at attracting new graduates, especially doctors, nurses, and midwives. This cannot be explained by higher salaries. The private sector in general did not offer salaries higher than the public sector; in many states, the salaries of doctors and nurses were lower than the comparable public sector value. The high amounts of churn in the private facilities for nurses and midwives does not bode well for the retention of skills and client-provider relationships. Given that the entries are generally matched by the exits (except for doctors), the overall size of the HRH stock in the private sector will not be growing substantially in the near future.

We can conclude that the size of the private health workforce is much smaller than the public health sector and concentrated in urban areas. It is hard to reconcile this with the first '60 percent' statistic, i.e., the private sector provides the major share of health services in Nigeria. If we believe the statistic, then either the private health sector facilities therein are more productive in servicing more clients with fewer staff without sacrificing quality, or productivity is the same (perhaps implied because salaries are not higher in the private sector) and hence private facilities reduce quality of care in extracting more work per health worker in the same amount of time as the public health sector. Based on this logic, estimating the actual service load in the sector, i.e., to ask if it approaches the 60 percent mark for specific services, can help us understand if quality is an issue. Maintenance of quality of care and adherence to guidelines are major factors in evaluating the feasibility and desirability of further scale-up through the private sector.

7.2 SERVICES DELIVERED IN NIGERIA'S PRIVATE HEALTH SECTOR

In the conclusion to Chapter 6, we discussed the varying level of involvement of the private health sector in service provision for priority diseases (HIV/AIDS, TB, and malaria) as well as essential health services (maternal health, family planning, and child health). This implied varying need, by service type, for the public sector to take up the burden of provision. Private health facilities could provide as many as 100,000 patients with ART, which is 29 percent of the target of 350,000 and 35 percent of the 288,000 people on ART in Nigeria currently. The private sector could service most of the targeted load for VCT encounters per year, if the rates in our sample hold for the population of facilities (by level of facility). In TB-DOTS services, the private sector could provide as much as 80 percent of the total service load achieved by the public sector in 2008. However, for malaria treatment, the burden of service provision falls on the public sector (80 percent of the cases) – but it is not clear that this requirement is fully met by public facilities.

For essential health services, in maternal health, the private sector could provide up to 20 percent of the projected need for attended deliveries. While it is hard to estimate the total current usage of modern methods for contraceptives, the contribution of the private sector in service provision in meeting the demand is significant for certain methods. However, the vast majority of clients for such methods would need to be serviced by the public sector if the 2010 targets are to be met (assuming the private sector's share remains constant). The private health sector in Nigeria could provide as much as 889,226 immunizations per year across the three levels of facilities, and handle up to 2.71 million OPD visits for children per year, signifying large demand for out-of-pocket child health services.

These figures neither corroborate nor disprove the 60 percent of services statistic. Clearly, the contribution toward service provision varies across the health need – from low (malaria) to high (family planning, TB). Given that for the services where the private sector is a significant provider, that provision is achieved with a substantially smaller health workforce, we must ask if productivity is high and hence quality is maintained or productivity is no higher than the public sector and hence quality is sacrificed. Ways in which quality could be affected in the latter scenario include high levels of clients per day per provider, or short encounter, or encounters with no physician present.

Our limited analysis of the private sector cost of treatment, focused on the basic consultation fee, implies that out-of-pocket costs are significant compared with the ability to pay. The high share of the private sector in health service provision should lead us to consider how the public or other subsidized health services can be improved in quality and accessibility so that the financial burden on the poor is reduced.

7.3 RECOMMENDATIONS

We have presented important, evidence-based conclusions on the ability of the private health sector to take on enhanced service provision, by focusing on its human resources and its current level of service provision. We can only attest that for some services, it is a significant actor, while for others its role is smaller. For those services where the private sector is a minor provider, we do not have data on whether the public sector is able to meet all or a substantial portion of the remaining demand. The role of the public health system is paramount in some of the services, and given the slow growth in the private sector health workforce – we do not have data on the growth in the number of facilities – we expect that that the public sector will need to play a major role if Nigeria is to meet the Health MDGs as well as other targets. Our analysis in a prior study (Chankova et al. 2006) has laid out the additional public health workers that would be required for this to happen.

The contradiction between a smaller-sized health workforce and yet a major contribution for certain health services has led us to ask questions on quality of care. Our analysis of the cost of consultation, one of many fees faced by patients facing out-of-pocket costs, suggests that affordability of private health facilities is an issue. Given that the demand for private health services is robust for certain health needs, this can mean that clients are willing to pay for relative quality (or perceived quality) and/or convenience. This is an issue that should be investigated with field-based surveys of clients and observation of quality of care. In fact, there are several issues for further research. As always, a survey and assessment unearths more questions than it can answer. Therefore, some of our recommendations focus on the need to ask further questions of the services provided in the private health sector in order to fully inform a policy for enhanced public-private partnerships in the Nigerian health sector.

Generally, we refrain in the following in making recommendations on mechanisms to enhance service delivery through the private sector through innovative financing mechanisms, etc. Though public-private partnerships are important, the level of provision through the private sector is not low according to this study; what is crucial to understand is if it is of sufficient quality and sustainable.

The authors of this report make the following recommendations:

- Government and/or partners should conduct a rapid appraisal of the quality of care in the private sector for both priority diseases and essential health services, focusing on client satisfaction, adherence to clinical and other guidelines, and proximate treatment outcomes.

- Government should create a strategy to assist the private sector facilities with retention policies, especially for nurses and midwives. This could involve facility work environment improvement, recognition, and incentives.
- Government or partners should investigate, using a comprehensive client survey, the actual out-of-pocket cost to clients of private and public health facilities for consultation, pharmaceuticals, and materials. The costs should be compared at the local level against sources of income in order to understand the financial burden and whether provision of health services in Nigeria is pro-poor across the health sector.
- Repeating the recommendation of previous studies, the FMOH in collaboration with state and local health authorities should explore strategies to recruit and retain more health professionals in rural areas. For private facilities, the FMOH may interact with the Nurse/Midwives Council and the physicians' guild in order to investigate potential interventions.
- The FMOH and SMOHs should work with private facilities to improve the referral system such that more complicated cases are referred up the levels of private facilities. This will also assist in the rational allocation of health workers by cadre and experience, and improve the quality of care in lower-level facilities by focusing their service offerings.
- The FMOH should provide training to private health facilities to improve routine data collection in all health facilities for service load and outcomes, and for human resource information.

ANNEX A: NOTES ON SAMPLING METHODS

TABLE A.1. DISTRIBUTION OF PRIVATE HEALTH FACILITIES BY REGION

Zone	Population	Sample
South East	2,393	74
North Central	2,709	83
South West	2,403	74
South South	1,232	38
North East	273	8
North West	741	23
Total	9,751	300

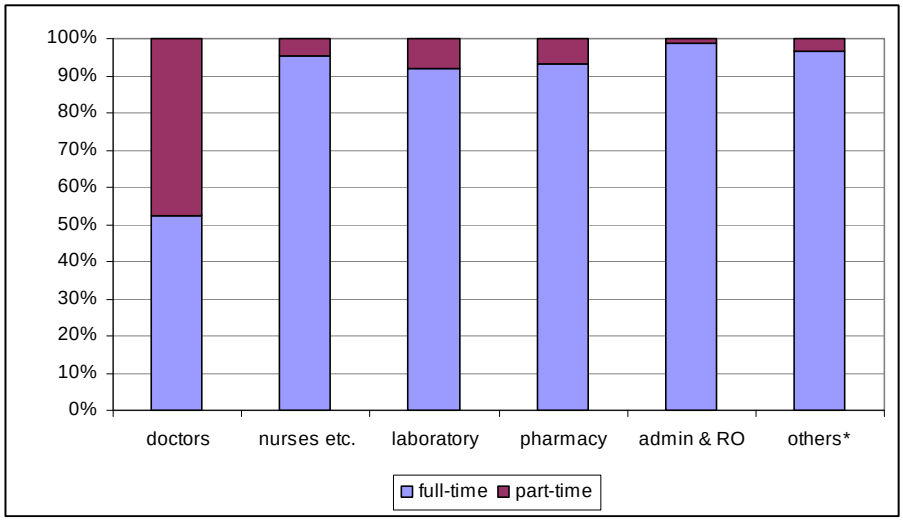
An equal probability systematic sample was selected in each zone after sorting the population of facilities first by state and then within each state by type of facility. The sorting of facility by type was not done in some states because of lack information on the type of facility. Because of proportional allocation of the sample to each zone and equal probability selection within each region, the base sampling weights that could be assigned for producing population-based estimates, if one was extrapolating based on zonal averages, are approximately equal for all selected facilities. The weights are shown in Table A.2.

TABLE A.2. SAMPLING WEIGHTS FOR SELECTED FACILITIES

Zone	Sample Size	Sampling Weight
South East	74	32.34
North Central	83	32.64
South West	74	32.47
South South	38	32.42
North East	8	34.13
North West	23	32.22
Total	300	

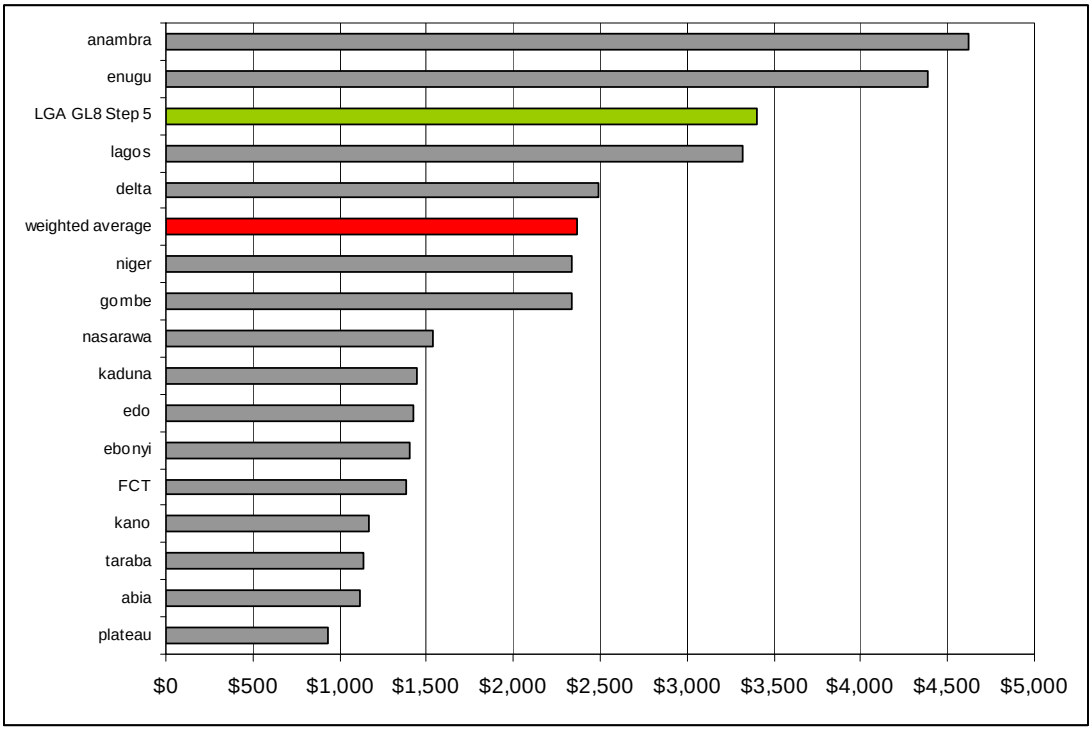
ANNEX B: ADDITIONAL RESULTS

FIGURE B.1. FULL-TIME VS. PART-TIME STAFF BY CADRE IN NIGERIA



* Others includes nutritionists. RO: records officer/ medical records officer

FIGURE B.2. PRIVATE SECTOR FULL-TIME MIDWIVES' ANNUAL SALARIES BY STATE, 2007 US$*



* Converted using average US$: Nigerian naira exchange rate of 1:128 for 2007-2008

FIGURE B.3. PRIVATE SECTOR FULL-TIME LAB TECHNICIANS' SALARIES BY STATE, 2007 US$

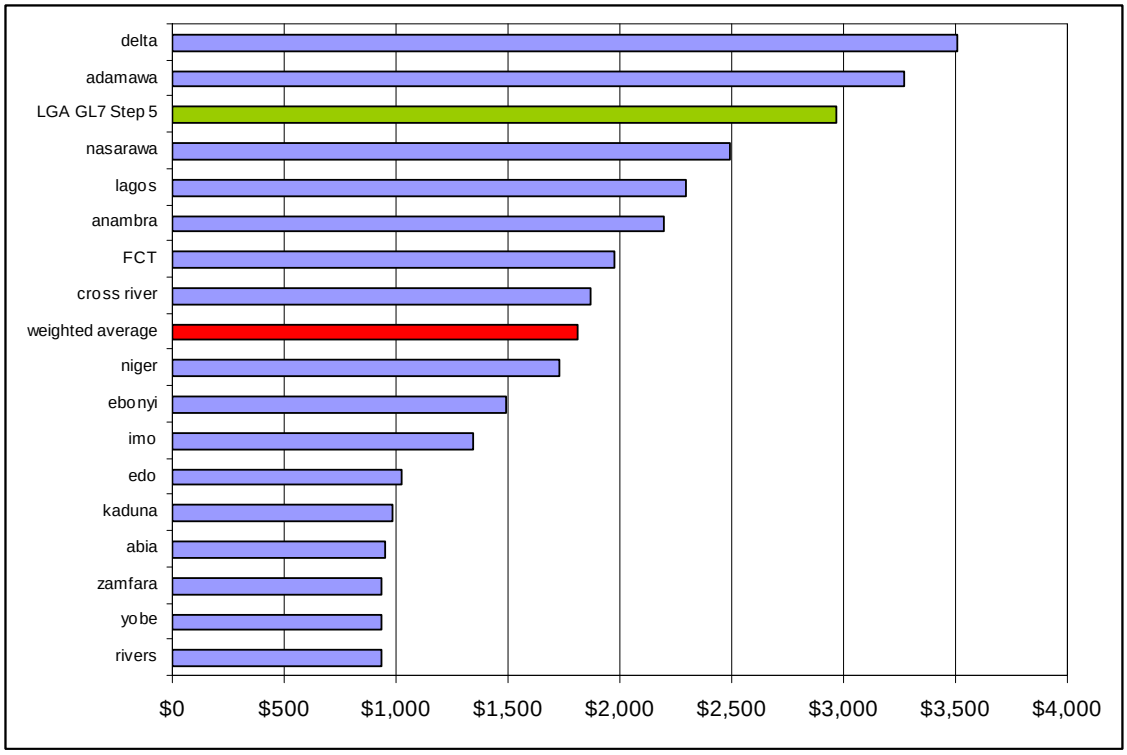


FIGURE B.4. CAUSES FOR ATTRITION BY LEVEL OF FACILITY AND CADRE, NIGERIA 2008

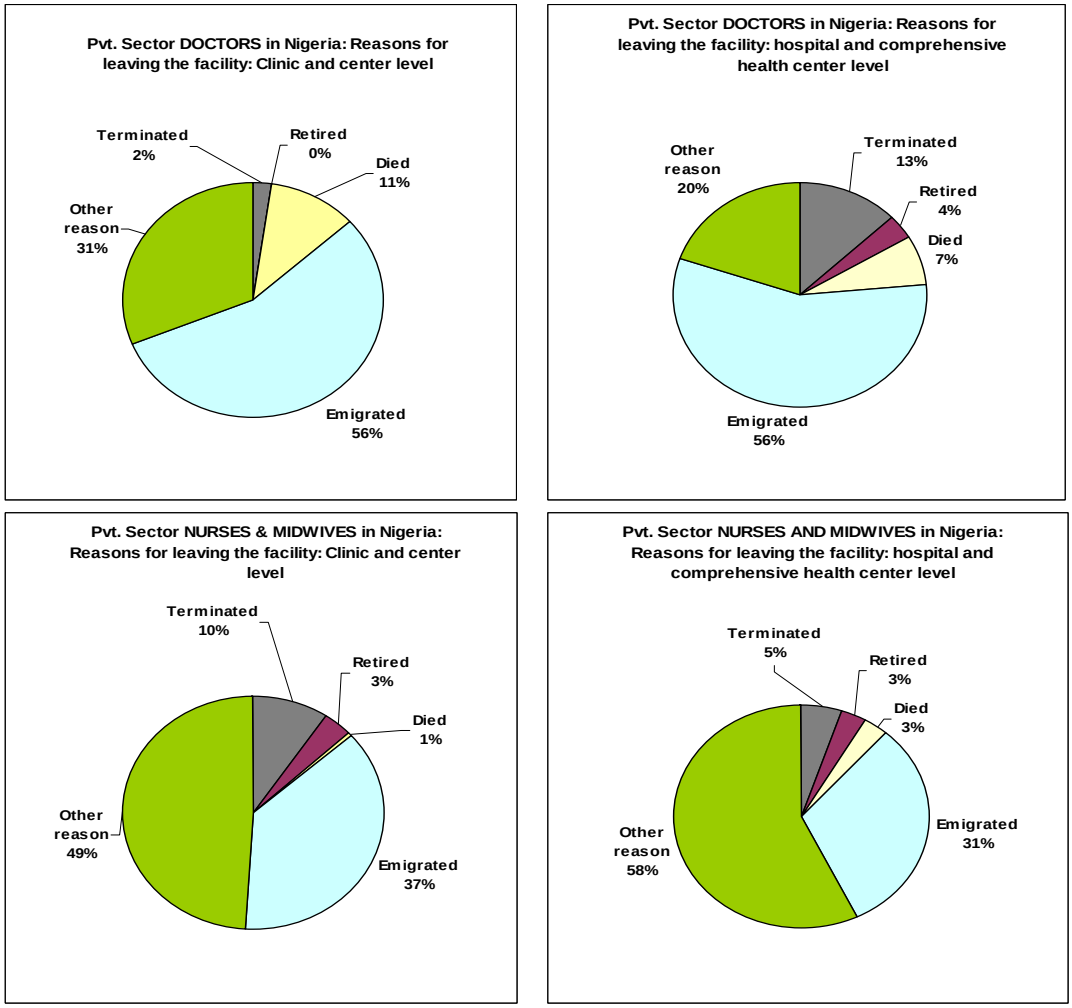


TABLE B.1. AVERAGE SALARY OF PRIVATE SECTOR HEALTH WORKERS BY ZONE, 2007 US$

Zone	doctors	nurses	Assistant nurses	Midwives	Lab Tech	Radiographers	Pharmacists
South East	$8,645	$4,053	$3,029	$3,360	$1,530	$4,100	$1,796
North Central	$5,484	$3,250	$1,069	$1,542	$3,095	$3,855	$1,996
South West	$7,123	$3,023	$2,986	$3,320	$2,294	$1,830	$3,358
South South	$7,254	$2,048	$1,116	$2,260	$2,741	$2,570	$3,339
North East	$4,117	$1,900	$1,230	$1,137	$1,752	$3,738	$2,804
North West	$2,105	$1,614	$1,012	$10,326	$981	$981	$1,133

TABLE B.2. AVERAGE SALARY OF PRIVATE SECTOR HEALTH WORKERS BY LOCATION, 2007 US$

Location	doctors	nurses	Asst. Nurses	Midwives	Lab Tech	Radiographers	Pharmacists
Urban	$7,078	$3,343	$2,242	$3,038	$2,350	$2,634	$2,637
Rural	$4,809	$2,230	$3,577	$4,846	$2,065	$3,329	$2,129

TABLE B.3. RATES OF PROVISION OF HEALTH SERVICES AS A PERCENTAGE OF FACILITIES IN THE GROUP

Type of ownership	Any HIV/AIDS services	Any Tuberculosis services	Any Malaria services	Any Maternal Health services	Any Family Planning services	Any Child Health services
Sole proprietorship	39.7%	25.1%	95.6%	93.9%	69.6%	80.6%
Partnership/group practice (LLP)	57.9%	36.8%	100%	89.5%	68.4%	79%
Private corporation	68.8%	37.5%	100%	100%	81.3%	100%
Public corporation	100%	100%	100%	100%	100%	100%
Faith-based organization	53.3%	46.7%	93.3%	100%	33.3%	73.3%

TABLE B.4. PERCENTAGE OF FACILITIES WITH AT LEAST ONE STAFF OF THE CADRE

	Doctors		Nurses*	
	Full-time	Part-time	Full-time	Part-time
Basic health clinic	52%	36%	56%	12%
Clinic	49%	52%	64%	12%
Community health center	-	33%	33%	67%
Comprehensive health center	77%	62%	85%	13%
Cottage hospital	67%	33%	67%	-
Dispensary	-	13%	13%	-
Health center	58%	33%	50%	-
Health clinic	33%	67%	50%	17%
Hospital	96%	60%	85%	5%
Maternity	33%	42%	58%	11%
Secondary hospital	93%	53%	87%	20%
Primary health center	46%	62%	54%	8%

* Not assistant nurses or midwives

TABLE B.5. ESTIMATED DISTRIBUTION OF FULL-TIME STAFF BY CADRE, ACROSS PRIVATE HEALTH FACILITIES BY TYPE, 2009

Cadre	Doctors	Nurses	Ass. Nurse	Midwives	Lab Tech	Radiographer	Pharmacist	Outreach HW	Nutritionist	Admin	Lab Scientist	Pharma Tech	Health RO	Med RO	Others
Basic health clinic	193	352	132	84	66	8	0	182	0	86	18	13	53	43	377
Clinic	3,377	7,526	10,044	3,059	1,682	139	118	1,061	0	1,238	531	433	943	354	6,603
Community health center	0	7	12	2	0	0	0	5	0	0	2	0	2	0	12
Comprehensive health center	35	84	24	31	15	3	3	28	1	20	10	4	10	3	66
Cottage hospital	14	22	0	12	22	0	0	0	0	0	0	0	0	12	12
Dispensary	0	24	0	24	24	0	0	71	0	24	24	0	0	0	235
Health center	175	378	237	169	51	0	34	102	0	17	34	56	51	17	592
Health clinic	121	416	1,196	52	295	0	104	312	52	104	87	52	0	52	416
Hospital	5,131	12,099	7,422	4,545	2,203	396	419	806	239	1,520	1,110	732	847	946	9,649
Maternity	874	3,460	2,848	1,329	384	0	0	52	17	262	105	0	472	262	3,233
Secondary hospital	34	93	82	40	16	2	2	5	0	7	9	7	5	6	80
Primary health center	400	1,166	309	229	274	160	69	34	34	103	69	0	103	126	1,281
Health posts	84	154	58	37	29	3	0	80	0	38	8	6	23	19	165
TOTAL	**10,439**	**25,780**	**22,362**	**9,612**	**5,059**	**710**	**749**	**2,737**	**344**	**3,418**	**2,005**	**1,302**	**2,508**	**1,840**	**22,721**

TABLE B.6. ESTIMATED DISTRIBUTION OF PART-TIME STAFF BY CADRE, ACROSS PRIVATE HEALTH FACILITIES BY TYPE, 2009

Cadre	Doctors	Nurses	Ass. Nurse	Midwives	Lab Tech	Radiographer	Pharmacist	Outreach HW	Nutritionist	Admin	Lab Scientist	Pharma Tech	Health RO	Med RO	Others
Basic health clinic	129	48	5	8	13	0	8	3	8	8	0	0	0	0	10
Clinic	3,573	825	196	118	137	0	0	0	0	0	59	0	0	0	177
Community health center	3	5	16	0	0	0	0	0	0	0	0	0	0	0	1
Comprehensive health center	66	2	1	1	0	3	0	0	0	0	0	0	0	0	8
Cottage hospital	10	0	0	0	0	0	0	0	0	0	0	0	6	0	6
Dispensary	31	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Health center	124	0	0	0	17	0	0	6	11	0	0	17	34	0	6
Health clinic	191	104	0	0	0	17	0	0	17	0	0	0	0	0	0
Hospital	3,641	247	173	90	74	33	66	49	25	49	90	0	0	0	99
Maternity	979	244	367	175	87	0	0	0	0	0	35	52	0	0	105
Secondary hospital	18	7	0	0	3	3	5	1	2	2	1	1	1	0	0
Primary health center	675	69	34	0	0	69	0	0	0	0	34	0	0	0	332
Health posts	56	21	2	3	6	0	3	1	3	3	0	0	0	0	4
TOTAL	9,496	1,573	795	395	337	125	81	59	67	62	220	70	41	0	771

ANNEX C. MAJOR RESULTS OF RELATED STUDIES

1. Conclusions of the Situation Assessment of Human Resources in the Public Health Sector in Nigeria (Chankova et al. 2006)

Size, Skills Mix, and Distribution of HRH in the Public Sector

Based on the staffing situation of surveyed facilities, it is estimated that in 2005 the public sector in Nigeria had about 17,800 doctors, 122,000 nurses and midwives, and 86,600 community-level health staff (CHOs/CHEWs). This translates to 13 doctors, 92 nurses and midwives, 10 pharmacists, and 64 CHOs/CHEWs in the public sector per 100,000 population. The health workforce per population indicators in 2004 and 2006 are similar to those in 2005.

There are large differences between rural and urban areas in the health workers per population ratios in the public sector. On average, an urban resident has access to nearly three times more doctors and two times more nurses/midwives, compared with a rural resident. A similar disparity is seen for pharmacy and lab staff. One exception are community health workers who are more numerous in rural areas.

The distribution of health workers by level of care shows that the primary care level has 19 percent of doctors, 31 percent of nurses and midwives, 42 percent of lab, and 38 percent of pharmaceutical staff working in the public sector. CHOs/CHEWs are present predominantly at primary-level facilities, while the secondary and tertiary levels of care have the majority of all other staff categories, which can be explained in part by the higher complexity of services provided at these levels.

Changes in the HRH Stock of the Public Sector

Staff attrition rates, measuring the number of those leaving the public sector as percent of total staff, range between 1.3 and 2.3 percent for the different staff categories, and are highest for doctors and pharmaceutical staff. HRH attrition rates in rural areas are generally higher than in urban areas.

While attrition rates measure the outflow of HRH from the public health sector, overall changes in staff numbers are also dependant on new incoming staff. The major source of incoming staff in the public health sector are new graduates (83 percent of total new incoming staff in 2005). They represent an increase of about 3 percent of manpower in the public sector.

The contribution of new graduates to existing staff numbers varies among staff categories, from 7.7 percent for doctors to only one percent for nurses/midwives. It is estimated that about 1,200 new medical graduates (who have finished their youth service assignment) entered the public sector in 2005, which means that about 60 percent of newly graduated doctors start their career in the public sector.

HRH Requirements for Reaching the PEPFAR Targets in the Public Sector

The PEPFAR program in Nigeria covers a broad range of HIV/AIDS-related services. This assessment focuses on quantifying the HRH requirements in the public health sector for reaching three key PEPFAR targets: VCT, ART, and PMTCT. Through PEPFAR support, the target for Nigeria is to have, by 2008:

- 3.5 million receive VCT, including 500,000 pregnant women in PMTCT setting;
- 350,000 patients on ART, and
- 40,000 pregnant women receive PMTCT drug prophylaxis.

Findings from the assessment indicate that between 2005 and 2008, the public sector will need to add about 792 lab specialists, 707 pharmacy specialists, 317 nurses/midwives, and 384 doctors, to cover the PEPFAR targets alone. These figures represent 5 percent of the total number of lab specialists, 6 percent of pharmacy specialists, and 2.2 percent of doctors available in the public sector in 2005.

HRH Requirements for Reaching the Health MDGs in the Public Sector

In order to reach the health MDGs in 2015, the public sector will require a steady increase in the number of HRH. The number of doctors in the public sector needs to increase from about 17,800 in 2005 to 22,000 in 2010, while the number of nurses needs to increase from about 122,800 to more than 140,000 in the same time period. Substantial further increases are required across all staff categories in 2010-2015 as well.

The gap between the projected HRH availability and HRH requirements for the MDGs for 2010 and 2015 is striking: in 2010, the public sector in Nigeria will have a projected shortage of about 21,000 nurses/midwives, 3,800 pharmacy specialists, and 4,480 lab specialists, from the numbers required for reaching the MDG targets. The projected shortage in these categories in 2015 is of similar magnitude, but even larger for nurses (about 39,880). It appears that Nigeria will have a sufficient number of doctors in the public sector, as required by the MDG-related targets. In 2015, our estimates even show a slight surplus (of about 5 percent) in the number of doctors required.

2. Conclusions of the Nigeria HIV/AIDS Service Provision Assessment (Amanyeiwe, et al. 2009)

The Nigeria HIV/AIDS Service Provision Assessment report identifies 10 conclusions based on the assessment findings.

An important positive conclusion is that counseling and testing (CT) services are quite widely available across Nigeria; 68 percent of facilities sampled provided CT. However, this is not matched by secondary prevention and treatment services like PMTCT services, ART, and TB services that support individuals who have tested positive for HIV. Only 25 percent, 7 percent, and 36 percent of all facilities provide PMTCT, ART, and TB services, respectively.

Second, there is a great deal of heterogeneity in service availability by level, management, and location of facilities. Primary-level facilities are consistently less likely to provide CT, PMTCT, ART, TB, or post-exposure prophylaxis (PEP) services than secondary or tertiary facilities. This heterogeneity is also mirrored in differences by managing authority, since most primary care facilities are LGA-managed. Rural facilities also have lower service availability than urban facilities. In particular, rural facilities are 85 percent less likely to provide ART and 25 percent less likely to provide PMTCT as urban facilities this is a concern since most of the Nigerian population lives in rural areas.

Third, HIV/AIDS-related service availability at FBO-managed facilities slightly exceeds that at LGA-managed facilities, but is usually weaker than service availability at state-managed and federally managed facilities. This suggests both opportunities and challenges with expanding the role of FBO-managed facilities in HIV/AIDS service delivery through public-private partnerships.

Fourth, PEP services are available on site or by referral at only 14 percent of all facilities, with especially low availability in primary-level, LGA-managed, and rural facilities. Staff training on PEP is provided in a quarter of facilities, but this training is not translated into PEP service availability.

Fifth, limited laboratory capacity is a critical concern in primary-level, LGA-managed, and rural facilities. Among facilities that provide laboratory services, only small proportions have the equipment and supplies to perform critical tests like CD4, viral load, and liver function tests. Close to three-fourths of FBO-managed facilities have laboratories, which suggests potential for public-private partnerships to expand laboratory services at lower levels of the health system.

Sixth, the availability of HIV drugs in terms of stocks on the day of the survey is very low, especially at primary care and LGA-managed facilities. About half of all tertiary care facilities had all the main first line ARVs: lamivudine, nevirapine, zidovudine, efavirenz, and stavudine. However, fewer than a fifth of tertiary facilities had all key second line drugs in stock (tenofovir, abacavir, didanosine, and protease inhibitors) and no primary facilities had second line drugs.

Seventh, less than one-tenth of surveyed facilities with pharmacies had each of the key TB drugs in stock on the day of the interview. This is of great concern given increasing TB prevalence rates and HIV/TB co-infections. For diagnosis of TB, most facilities use sputum smears alone or sputum smears in combination with X-rays.

Eighth, counseling HIV-positive mothers on infant feeding and provision of breast milk substitutes is limited at primary care facilities. As well, at the primary level there is a substantial gap between provision of ARV prophylaxis to mothers (33 percent) and newborns (23 percent) indicating an important missed opportunity for prevention.

Ninth, quality assurance, monitoring and evaluation (M&E), and surveillance are areas that require attention. A very limited proportion of facilities implement routine quality assurance activities. This is a problem in all types of facilities except federally managed and tertiary care facilities. The limited availability of HIV/AIDS or TB protocols in facilities is potentially also indicative of the problem, as is the small proportion of facilities that provide training on monitoring and surveillance.

Tenth, user fees are charged at 57 percent of all facilities in Nigeria, though more than half of facilities that charge fees report providing exemptions to some groups. Despite a national policy that ART and PMTCT services should be provided free of charge, 15 percent of all facilities charge user fees for these services.

Key recommendations that emerge from this report include the following:

1. Expand the provision of ART, PMTCT, and TB services, especially in primary-level and LGA-managed facilities that are more accessible to rural populations.

2. Ensure that PEP services are available in all facilities to protect health workers from the risk of occupational exposure.

3. Ensure the consistent availability of HIV/AIDS and TB drugs at health facilities.

4. Institutionalize quality assurance programs and M&E at health facilities, especially at secondary- and primary-level facilities.

5. Explore public-private partnerships with FBOs to expand service availability to underserved populations.

6. Increase access to laboratory services, especially at the primary level.

7. Expand access to ARV prophylaxis for newborns and pregnant women, especially at the primary level and through outreach-based methods.

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