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# Improving Primary Health Care Delivery in Nigeria

*Evidence from Four States*



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**Africa Region Human Development Department**



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# Foreword

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Each year many lives, especially children's, are lost in Nigeria. Communicable diseases, particularly malaria, pneumonia, and diarrhea, often linked with malnutrition, caused most of these premature deaths. Most interventions proven to prevent or treat these illnesses are primary health care interventions; some of them can be provided by the households themselves after some orientation from a health provider, either inside health facilities or through community outreach.

Maternal mortality is also high in the country. Some of these deaths can also be prevented. Although access to referral care is essential to improve maternal survival; primary health care interventions can prevent some of the indirect causes of maternal deaths such as anemia, malaria, STI as well as the major factors underlying medical causes.

Given the importance of primary health care services for the country to achieve the Millennium Development Goals, it is important to generate knowledge on the challenges faced in delivering PHC services that would allow authorities to design and implement programs to respond to these challenges. This report then aims precisely at understanding the performance of primary health care (PHC) providers in four Nigerian states, Bauchi, Cross Rivers, Kaduna, and Lagos and the variables driving this performance. The report also aims at offering policy options to improve the delivery of PHC services in these states.

This report was prepared by the World Bank in partnership with the National Primary Health Care Development Agency, the Federal Ministry of Health, and the Canadian International Development Agency. The report was made possible thanks to the support received from the States Ministries of Health of Bauchi, Cross River, Kaduna, and Lagos and the financial support of the Canadian International Development Agency. Finally, the study also benefited from some financial support from the Bank Netherlands Partnership Program (BNPP).

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The Nigeria team was headed by Mrs. Koleoso-Adelekan (Executive Director of National Primary Health Care Development Agency) Dr. Shehu Mahdi (previous Executive Director of National Primary Health Care Development Agency), and Dr. Muhammad Pate (Executive Director of National Primary Health Care Development Agency at the time of the dissemination of the study). The team was composed by Prof. Akpala (Director of Planning, Research, and Statistics, NPHCDA), Dr. Iyabo Lewis (Consultant, NPHCDA), and Dr. O. Ogbe (Department of Planning, Research, and Statistics, NPHCDA). Dr. Tolu Fakeye (Head Division of International Health, Department of Health Planning and Research, Federal Ministry of Health) was also part of the team.

The World Bank team was headed by M.E. Bonilla-Chacin (Senior Economist, AFTH3) who coordinated the overall work and wrote the report. Ramesh Govindaraj (Senior Health Specialist, AFTH3) and Mrs. Anne-Okigbo (Senior Health Specialist, AFTH3) also participated in the work. Ngozi Malife provided great support to the team. The study was done under the overall guidance of Lynne Sherburne-Benz (Sector Manager) and Onno Ruhl (Country Director).

This report is mainly based on quantitative surveys on health facilities, health care personnel, and households in their vicinity that were commissioned for this study. These surveys were designed and implemented by a consortium of the following firms: EPOS Health Consultants; Canadian Society for International Health; and Center for Health Sciences Training, Research and Development (CHESTRAD). This consortium also prepared a report on the results of the surveys that served as background for this report.

The team also acknowledges the participation of Mr. Pierre Tremblay (Development Officer, CIDA), Mr. Martin Osubor (Development Officer, CIDA), and Mr. Bernard Heaven (Development Officer, CIDA) from the Canadian International Development Agency.

We also gratefully acknowledge the support of the State Ministries of Health of the participating states: Bauchi, Cross River, Kaduna, and Lagos. In addition, the study benefited from invaluable suggestions and comments from: Dr. Kolawole Maxwell (PATHS), Dr. Stuti Khemani (Senior Economist, World Bank), Dr. Jeffrey Hammer (Lead Economist, World Bank), Dr. Oscar Picazo (Senior Economist, World Bank), Mr. Ismail Radwan (Senior PSD Specialist, World Bank) and Dr. Maureen Lewis (Advisor, World Bank). Finally, the study benefited from comments received during a workshop that took place in December of 2007 where the preliminary results of the survey were presented.

This study was completed mainly with the financial support of the Canadian International Development Agency and also benefited from the Bank Netherlands Partnership Program.

# Acronyms and Abbreviations

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ACT	Artemisin Combination Treatment
BASEEDS	Bauchi State Economic Empowerment and Development Strategy
BHC	Basic Health Services
BEOC	Basic Emergency Obstetric Care
CDC	Center for Disease Control
CHC	Comprehensive Health Services
CHEW	Community Health Extension Worker
CHO	Community Health Officer
CIDA	Canadian International Development Agency
CPS	Country Partnership Strategy
CSR	Country Status Report
DA	Development Areas
DFID	Department of International Development
DHS	Demographic and Health Surveys
DPHC	Department of Primary Health Care
EA	Enumeration Area
ESW	Economic and Sector Work
FA	Federation Account
FHC	Facility Health Committee
FMOH	Federal Ministry of Health
GDP	Gross Domestic Product
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HND	Higher National Diploma
HP	Health Posts and Dispensaries
IGR	Internally Generated Revenue
ITN	Insecticide Treated Net
JCHEW	Junior Community Health Extension Worker
LEAP	Literacy Enhancement Assistance Project
LEEMP	Local Empowerment and Environmental Management Project
LG	Local Government
LGA	Local Government Area
LGSC/LGS	Local Government Service Commission/ Local Government Service
B	Board
MDG	Millennium Development Goals
NAFDAC	National Agency for Food, Drug Administration and Control
NEEDS	National Economic Empowerment and Development Strategy
NLSS	Nigerian Living Standards Survey
NPHCDA	National Primary Health Care Development Agency
NYSC	National Youth Service Corps
OND	Ordinary National Diploma

ORS	Oral Rehydration Salts
PATHS	Partnership for Transforming the Health System
PEMFAR	Public Expenditure Management and Financial Accountability Review
PFM	Public Financial Management
PHC	Primary Health Care
SACI	State Action Committee for Immunization
SEEDS	State Economic Empowerment and Development Strategy
SMLG	State Ministry of Local Government
SMOH	State Ministry of Health
SRDC	State Rural Development Commission
SSA	Sub-Saharan Africa
STI	Sexually Transmitted Infections
TB	Tuberculosis
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAT	Value Added Tax
WDR	<i>World Development Report</i>
WHO	World Health Organization
WHS	Ward Health Services
WMHCP	Ward Minimum Health Care Package

# Executive Summary

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This study aims mainly at understanding the performance of primary health care (PHC) providers in four Nigerian states and the variables driving this performance. The study is primarily based on quantitative surveys at the level of primary health care facilities, health care personnel, and households in their vicinity. These surveys were implemented in four states: Bauchi, Cross River, Kaduna, and Lagos.

## Primary Health Care Delivery in Four States

The organization of the delivery of primary health care services largely varies across states. The role of the private sector in service provision is larger in the southern states, particularly in Lagos. The public PHC delivery system also varies significantly. For instance, many states have progressively eliminated health posts and dispensaries. These are the smallest PHC facilities offering only a limited set of services, mainly child health services. However, in the northern states, and particularly in Bauchi, they represent an important share of PHC facilities.

The results of the health facility survey shows that often these facilities have decaying infrastructure, do not offer all basic services, and do not have all the health personnel, equipment, medical supplies, and pharmaceuticals needed to effectively offer services. There are, however, large differences across states, rural and urban local governments, and across public and private ownership.

In general, the condition of the infrastructure of PHC facilities, particularly public facilities, is poor. As seen in table 1, about two out of every five facilities sampled in the survey have leaky roofs, broken windows and/or doors. Less than three out of every four facilities have waste disposals, electricity, fridge/icebox, or toilets.

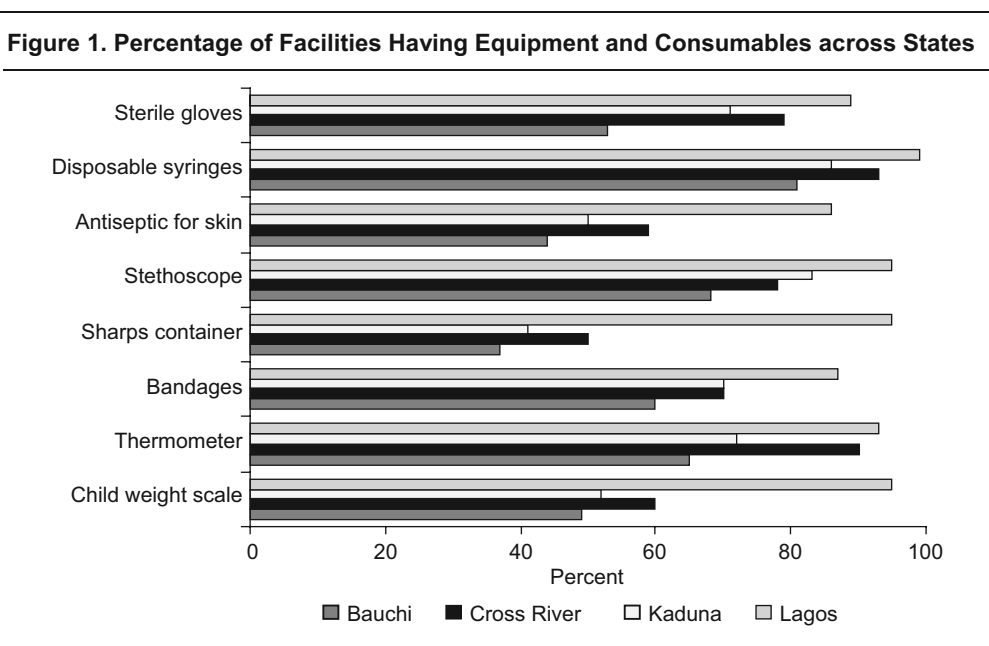
**Table 1. Primary Health Care Facilities Infrastructure across States and Facility Ownership (in %)**

	Bauchi	Cross River	Kaduna	Lagos	Private	Government
<i>Infrastructure</i>						
Taps with running water	22	26	27	80	78	16
Safe water	66	70	65	91	95	57
Electricity	44	60	31	95	94	38
<i>Condition</i>						
Leaky roof	65	43	52	11	15	57
Broken doors/window	61	40	56	12	15	57
Cracked floor	73	44	57	16	23	60
Clean	86	97	66	86	87	83

Source: Health Facility Survey (EPOS, CISH, CHESTRAD, 2007).

Most health facilities offer child health services, however, maternal services and particularly family planning services are less likely to be offered. Type I facilities (health posts and dispensaries) are less likely to offer maternal services, including preventive services such as antenatal care. As most facilities in Bauchi are type I, these services are less frequently available in the state. Family planning and the control of sexually transmitted diseases are the services that are least available in PHC facilities, particularly in the northern states.

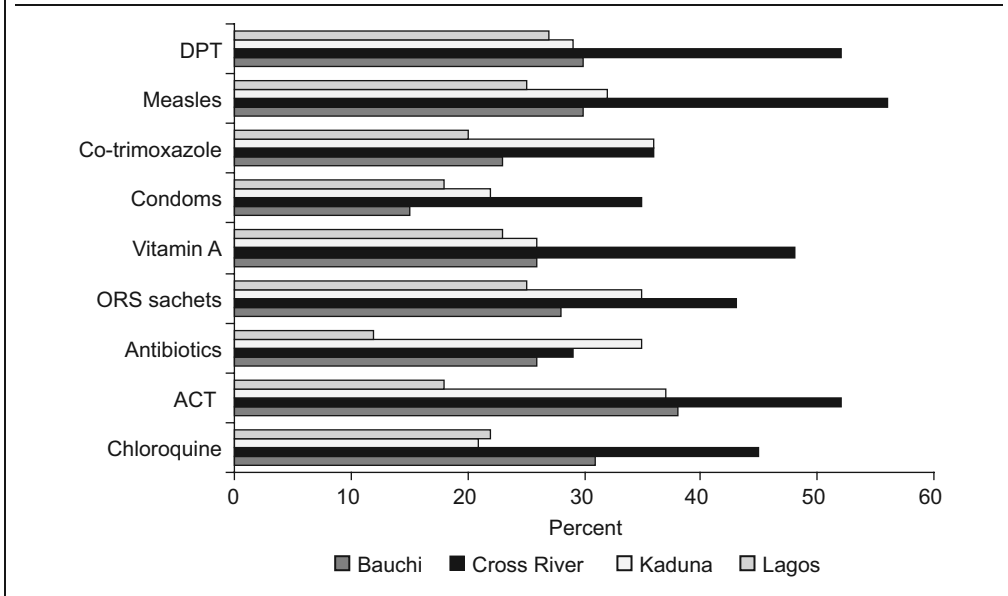
A large share of PHC facilities do not have all the equipment needed to offer basic services to the communities they serve. PHC facilities are more likely to have medical consumables such as bandages, sterile gloves, and syringes (figure 1). Similarly, most facilities have some basic equipment such as thermometers, and stethoscopes. However, less than two thirds of PHC facilities have other basic equipment and supplies such as child weight scales, sharp containers, and antiseptics.



Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

A large percentage of facilities do not have basic pharmaceuticals on stock and only about half of the PHC facilities have vaccines on stock (see figure 2). Anti-malaria drugs are the most frequently available drugs in the facilities. However, only two out of every three facilities have ORS sachets on stock. Micronutrient supplements are also in low supply. Despite the efforts and considerable improvements in immunizations, maintaining vaccines on stock remains challenging.

**Figure 2. Percentage of Facilities Having Basic Pharmaceuticals and Vaccines on Stock across States**



Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

There are major constraints in the referral system. Although most of the facilities refer patients, only about half of them have easy communication with the referral center. The average walk time to referral centers is 60 minutes and the drive time 20 minutes; nevertheless, the chances of encountering difficulties with transportation are considerable, since only 31 percent of the health facilities have access to transportation to deal with emergency cases.

Most PHC facilities, with the exception of Lagos, are staffed by community health workers and nurses and midwives. Community health workers, including Community Health Officers (CHOs), Community Health Extension Workers (CHEWs) and Junior Health Extension Workers (JCHEWs), are unique to Nigeria. These cadres of health care personnel were introduced by the Basic Health Service Implementation Scheme (1975–1983). They have allowed the staffing of basic health facilities in the country.

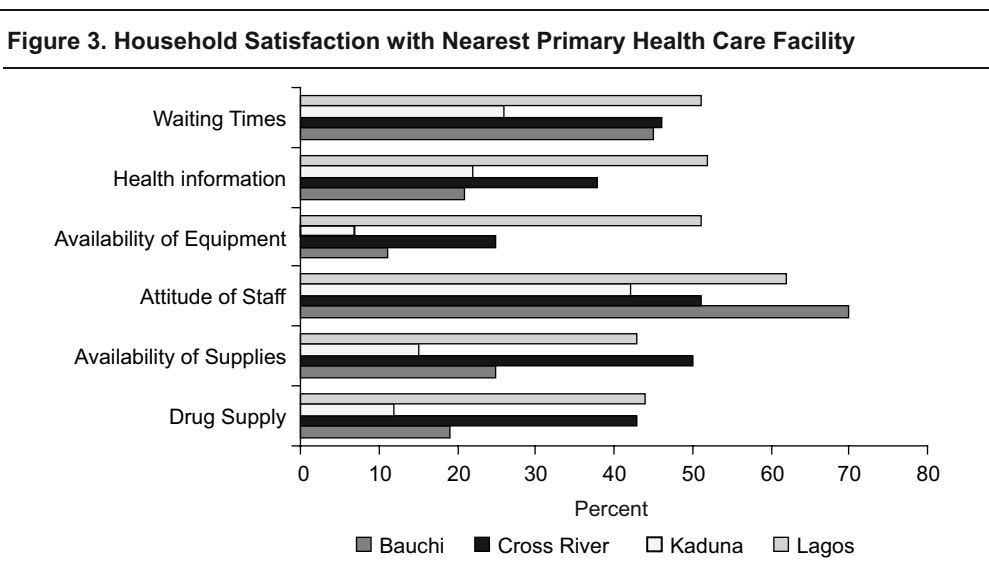
In relation to recommended national standards, most PHC facilities are understaffed. NPHCDA has established a minimum ward health care package to be provided by 2012. To provide this package, NPHCDA sets recommendations concerning the staffing of all PHC health facilities. However, on average, very few have this recommended number and skill mixed of staff. For instance, on average, the sampled clinics and health centers do not meet the proposed standard for clinics, let alone that of health centers, as they have less than 4 JCHEWs, less than 2 CHEWs, and less than 3 nurses/midwives on staff.

Facilities in all states offer exemptions and waivers but to a limited degree. Facilities in all states offer exemptions to some health services such as routine immunization, family planning, and antenatal care. Facilities in Cross River more frequently offered free services, while those in Lagos had the lowest percent of exemptions. However, these exemptions were not standard as most of them were offered less than 50 percent of the time. Concerning fee waivers for disadvantaged groups, most groups were generally asked to pay for services with the exception of clients with TB / leprosy and onchocerciasis. Lagos had the highest percent of people required to pay in all groups.

*Household Satisfaction with Services Provided by Nearest PHC Facility*

On average, households are satisfied with the availability of services in the PHC facilities, although there are large differences across states. Reflecting the results of the facility survey, households in Bauchi are the least likely to be satisfied with the availability of services in their nearest PHC facility, particularly regarding the availability of maternal services.

However, satisfaction with the services provided by PHC facilities is low in all states. Less than 50 percent of households were satisfied with the availability of drugs, equipment, medical supplies, and staff. The pattern of satisfaction across states also mirrors the availability of the equipment and supplies in the health facilities across states. Households in Bauchi and Kaduna were the least satisfied, followed by Cross Rivers and Lagos (see figure 3). Satisfaction with waiting time, with information provided regarding disease control and care, and with information on facility management was highest in both Cross River and Lagos. The level of household satisfaction also varied with the gender of the household head, as women were more likely to be satisfied with the services.



Source: Household Survey (EPOS, CISH, CHESTRAD, 2007).

The pattern of satisfaction with facility staff attitude was different. Households in Bauchi were the most satisfied with the attitude of health care staff, while those in Kaduna the least satisfied. This was in general the health service aspect that received the largest percentage of satisfaction. However, less than 60 percent of household heads were satisfied with the staff attitude.

There are particular weaknesses regarding the education and promotion activities of PHC facilities, particularly in the two northern states. Only few households reported having access to both outreach and public health education activities in all states, but particularly in Kaduna and Bauchi. Similarly, the level of household satisfaction with the information on disease prevention and control is also very limited. In both Bauchi and Kaduna, less than 25 percent of households were satisfied with the information received.

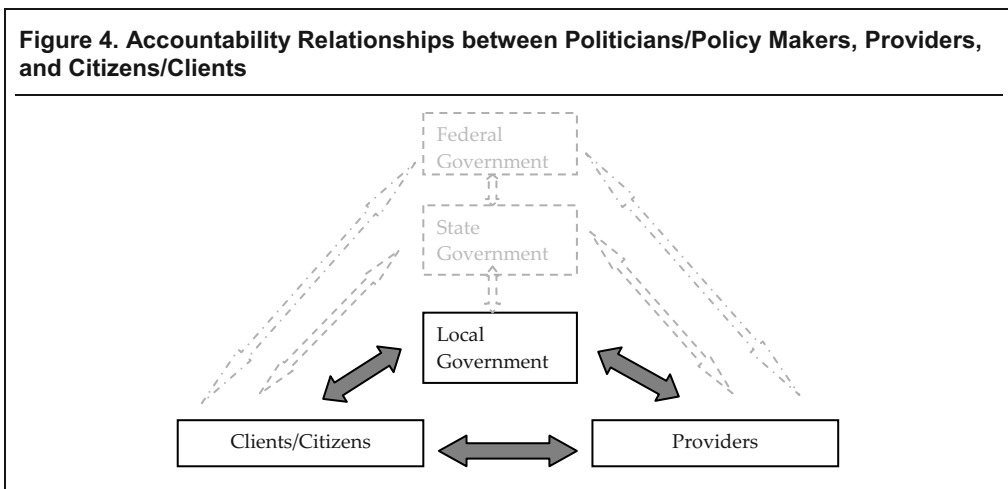
### Understanding the Performance of Primary Health Care in the States

This study follows the *World Development Report (WDR) 2004* framework on service delivery to understand the performance of PHC services in Nigeria. This framework explains service performance through three accountability relationships: “voice” between citizens/clients and politicians/policy makers, “compact” between policy makers and providers, and “client power” between providers and clients. If any of these relationships is not working, the services provided will not meet the needs or expectations of the patients. Thus to improve service delivery community members have two different routes; a “long route” by exercising pressure to their elected officials for them to ensure that providers offer quality services, and a “short route” by increasing their power over providers.

Accountability in this study is defined as the obligation to answer questions regarding decisions and actions (Brinkerhoff, 2004). Accountability would then imply both reporting information and justification for actions and decisions. It also implies the existence and application of sanctions.

### Division of Responsibility among Government Levels

**Figure 4. Accountability Relationships between Politicians/Policy Makers, Providers, and Citizens/Clients**



Source: Adapted from WDR 2004 and World Bank 2006.

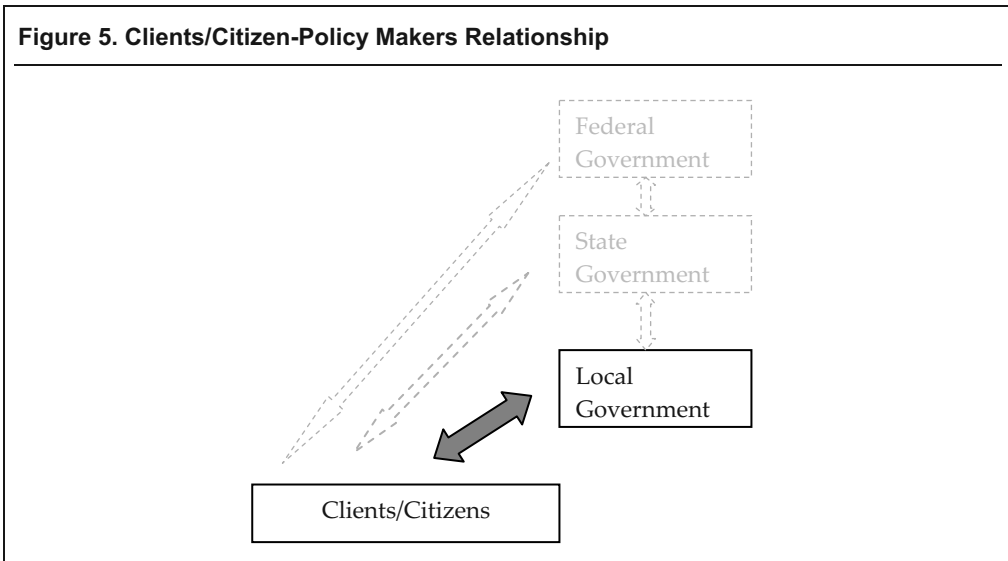
In Nigeria there are three “long routes” of accountability as shown in figure 4. The three levels of government, Federal, state, and local governments have some responsibility in the provision of health services. The three levels have relationships with citizens and with the PHC providers, in particular the states and LGs. Thus, as basic service delivery in the country is decentralized, to understand the performance of PHC facilities is also important to understand the relationships between the different levels of government regarding health services.

The division of roles and responsibilities between the federal, state, and local government levels, particularly between states and LGs, is complex and varies across states. The local governments have the main responsibility regarding the management of PHC. However, there is no single level or a single agency in charge of financing, managing, and supervising these services; of recruiting, training, and promoting PHC personnel; of setting and paying staff salaries; building and maintaining facilities; and providing drugs and supplies. Often the three levels of government and various agencies within each level participate in these activities, creating duplication and gaps in provision. In addition, some states have created a subdivision of the LGAs, the development areas, which also have some responsibilities regarding PHC.

These unclear lines of responsibilities have undermined the accountability relationships between citizen and policy makers, as it is not clear which level of government or agency within each level should fully answer the community on service delivery issues. The accountability relationship between providers and policy makers is also undermined, as there are many agencies with responsibility in the management of human resources, making sanctions for improper behavior difficult to implement.

**Citizens/Clients-Policy Makers**

**Figure 5. Clients/Citizen-Policy Makers Relationship**



Source: Adapted from WDR 2004 and World Bank 2006.

Although most levels of government and different agencies within each level share health care responsibilities, the local governments are the main level in charge of delivering basic services. To be fully accountable to citizens, local governments need to have the capacity to provide services, in other words, they need to have the financial and human resources required.

#### *Local Government Revenues and Responsibilities*

For many years there has been a debate on whether local governments receive enough resources to meet their responsibilities (World Bank, 2002). During the last military regime after many complaints for non-payment of primary school teachers' salaries, the federal government started to deduct the salary of teachers from the LGAs (LGAs) Federation Account (FA) allocation. Many LGs complained that this deduction at source created such a large reduction of their total revenues that they were left with a "zero-allocation" to fulfill their other responsibilities (World Bank, 2002).

However, the local government revenues have increased considerably in the last years and thus the "zero-allocation" phenomenon is not an issue at the moment. The LGs' share of the Federation Account, where oil revenues are centralized, has increased significantly since 1999. In addition, the total consolidated revenues of the entire government have also increased thanks to the increasing oil prices.

Nevertheless, LGs face many limitations in the use of these resources. Some of these limitations are statutory, such as deductions at source; others are administrative, such as limitations to their autonomy in drafting and executing their budget or in personnel management (World Bank, 2002). For instance, in most states, LGs need clearances from the state government to spend resources above a threshold or to obtain a loan. These limitations can be large and vary across states.

However, these limitations to the LGs autonomy and the little revenues they received in the past do not fully explain their service delivery record. Public expenditure management in LGs is weak: budgets are unrealistic, record keeping is poor, and irregularities in the use of funds are common. In addition, many local governments, despite having overstuffed civil services, have limited capacity in public financial management and other aspects linked to their service delivery responsibility.

#### *Local Government Health Expenditure*

Additionally, local government expenditure on health is low and varies largely across and within states. For instance, on average, local governments in Kaduna spend about US\$2 per capita on health and local governments in Cross River spend about US\$1.05 per capita in non-salary health expenditure. Despite increases in total local government expenditure per capita in the last years, in the instances when health expenditure has increased, it has done so at a much lower rate. Most of this expenditure is on personnel remuneration, very little is set aside for other recurrent costs. In particular, very little is allocated to the maintenance of health facilities.

#### *Local Government Accountability for Service Delivery*

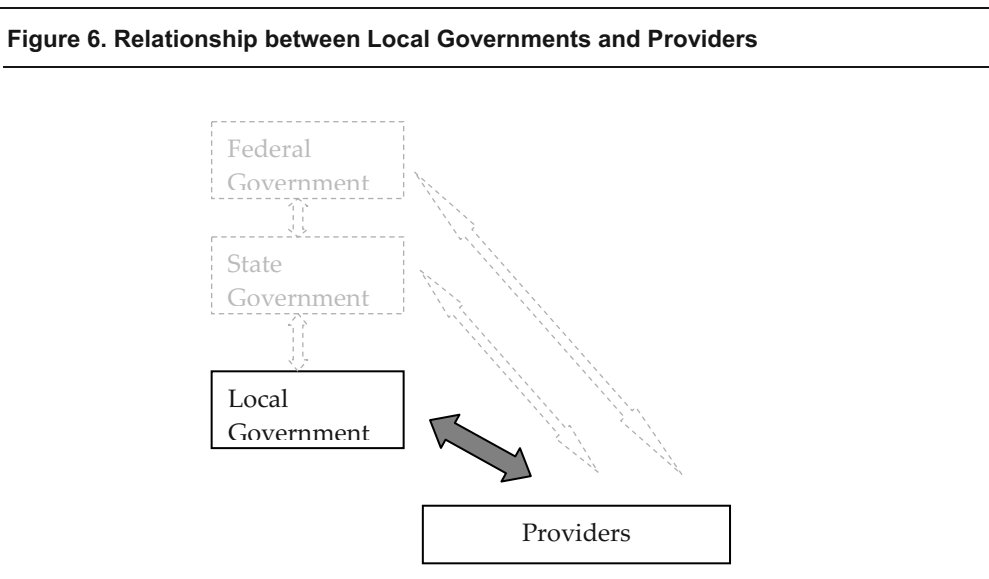
LGs' weak accountability towards health personnel concerning payment of salaries have been noted before (Khemani, 2005). In the states sampled in this study this does not seem to be an issue, although delays in salary payments are. Nevertheless, in Cross

River, the state now manages the payroll of LGs, as in the past many LGs staff complained for salary non-payments.

The level of accountability of local governments towards other levels of government could also be measured by the amount of information sharing on budget process, and on activities or outputs. Very little of this is done. Information on local government budgets and expenditure is difficult to come by. LGs, however, are answerable to auditors general of LGs but this information is usually given with delays and the auditor general is often powerless to apply any sanction for irregularities.

Local government accountability in relation to communities could also be measured by their responsiveness to communities. Information on rural local governments in nine states, including Bauchi, indicates that the level of responsiveness to communities is also low (Terfa Inc., 2005).

### Policy Makers-Providers



Source: Adapted from WDR 2004 and World Bank 2006

Policy makers aiming at providing quality services would not be able to achieve this goal if they cannot guarantee that providers will deliver these services. However, ensuring providers’ compliance to offer quality services is not simple; it requires offering the right incentives and a close monitoring of their work.

The Nigerian government has ensured the staffing of primary health care facilities by creating special types of PHC personnel, community health workers. Most health personnel working in primary health care facilities are CHEWs and JCHEWs, although there are also nurses. Often these workers come from the same area where they work, ensuring their integration in the community they serve. Nigeria does not have the acute lack of health personnel that is common in other countries in the region.

The majority of these workers are women, with the exception of Bauchi state where the majority of PHC workers are men. Having women as PHC staff reduces a barrier to access services which is the concern of non-availability of a female provider.

Despite these positive aspects in the recruitment of PHC personnel, there is still room for improvements as many factors determining health personnel motivation are missing. Most PHC personnel have received their salaries in the last year; however, a large share of them receives their salaries with delays. In relation to GDP per capita, when compared to other countries in the region, these salaries are relatively low. In addition, working conditions are difficult, particularly in rural areas. Health workers often do not have basic drugs and equipment to offer services; do not receive adequate training; and are poorly supervised. Finally, health care personnel are very unequally distributed across rural and urban areas, partly because the incentives to serve in rural and isolated areas are small.

In addition, providers' accountability in relation to policy makers and clients is weak. Measuring providers' accountability to local governments and patients is difficult. Lewis (2006) includes as a key measure of provider's accountability the "authority to reward performance and discipline, transfer, and terminate employees who engage in abuses". In the four states surveyed, the management of PHC personnel is cumbersome and fragmented given the number of agencies involved. Similarly, the lines of responsibilities regarding personnel supervision and management are not always clear. This makes any measure to discipline or motivate health personnel difficult to implement. As a result, frontline providers face little consequence for non-performance. Finally, their salaries are fixed and not linked to the provision of services; thus, they have little incentives to respond to the communities' demands.

Many workers, in response to inadequate remuneration and working conditions, respond by developing different coping strategies (Van Lerberghe et al., 2002). Although the majority of PHC personnel work full time, a large percentage supplements their salaries, especially in the two northern states. Most do agricultural work; however, an important percentage also sells medicines or provides health care at home.

## Clients-Providers

**Figure 7. Accountability Relationship between Clients and Providers**



Source: WDR 2004.

When the "long route" of accountability is not properly working, increasing client's power can result in improvements in service delivery, but is not a panacea, as there are important market failures that affect health services and in particular clinical services (World Bank, 2003). There are information asymmetries between patients and health personnel, as the latter know more about the patients' diagnosis and treatment. In addition, without health education and communication, the demand for preventive services is usually low. These issues reduce the effect of the short route of accountability (see World Bank, 2003).

One mechanism to increase “client’s power” is through their direct involvement in co-producing and monitoring health services (World Bank, 2003). The Nigerian government has long recognized the importance of community participation in the delivery of basic health care services and has thus tried to involve the communities in the development of PHC along the lines of the Bamako Initiative. Indeed, the guidelines for the development of the PHC system establish the development of health committees to support activities at village and ward level. All these committees are involved in many needed health activities, although not necessarily in their management.

The results of the facility survey show that half of all PHC facilities have or are linked to a community health *development/management committee*. These committees are present in two thirds of public facilities and in less than a third of privately managed ones. The majority of the members of these committees are men with exception of Lagos state where, on average, there is the same number of women and men in these committees. Most health committees meet at least once a month. In Bauchi, however, 30 percent of these committees only meet a few times a year.

With exception of facilities in Bauchi, most public PHC facilities sampled in the survey worked closely with health committees that met at least monthly. However, the involvement of these committees in the management of facilities is rather limited, as most decisions are taken by either the facility head or by the LGA. This is not surprising as many of these committees were created to support health activities but did not have a strong mandate to participate in the facility’s management. In particular, the community health development committees, as set up in the national guidelines, are not directly involved in the management of health facilities. The Ward Development Committees, in contrast, are supposed to oversee the functioning of the facilities in the Ward.

Another mechanism to improve client’s power in relation to providers is by making the provider’s income depend on the demand of clients, particularly poor clients (World Bank, 2003). By paying for services, patients can exert their power to receive adequate services. If they are not satisfied with the service offered they can always go to another provider. This is what patients do in private facilities. In Nigeria, most services provided by public health facilities have fee charges. These charges, however, have not increased the power of clients, as the facilities and health personnel cannot retain these revenues and use them for improvements. These resources are sent back to the local government as they are considered part of their internally generated revenue.

### **Possible Ways Forward**

There is an urgent need to clearly define the functions of each level of government and agencies within each level. Clearly defining who is responsible for what would avoid the existing gaps and overlaps. This is particularly the case for state governments. A larger participation of the state in the provision of these services, as intended in the Constitution, could improve the condition of these facilities and might decrease the fragmentation in the referral system. In particular, the state should be in charge of functions that have scale economies as is the case of the procurement of drugs and medical supplies and the training of personnel, both initial and in-service training. A

more clear division of responsibilities could also improve the accountability of policy makers in relation to communities and of providers in relation to policy makers as they will clearly know who they are answerable to.

Linked to a clearer division of responsibilities, there is also a need for an institutional review of state agencies with health service delivery responsibilities. This will allow a better understanding of the structure of service delivery in each state and will provide needed information to prepare for any adjustment needed to eliminate redundancies and improve the delivery of services.

Improving the performance and accountability of local governments and providers regarding service delivery often requires reforms that go beyond the health sector, in particular civil service reform. A comprehensive civil service reform that reduces the number of civil servants in the local governments and changes their skill mix will be needed. This reform is also needed to allow a more flexible and responsive mechanism to motivate and discipline frontline providers. Human resource management for health is fragmented, the LG and the LGSC or LGSB have the main responsibility, but other agencies also intervene.

Performance based matching grants from the federal or state governments to local governments can be used as instrument to improve basic health service delivery. Both the federal and state level governments have shown interest in improving basic service delivery in the country. They have used different instruments to do so. The states regulate and control most of the activities of the LGs; they also deduct resources from the LGs allocation to ensure that some activities are carried out. Many of these instruments have not produced the intended benefits as the performance of services can testified. Matching grants conditional on performance can offer local governments the incentives to improve services, provided that they have flexibility and capacity to use these resources.

The federal government has used this instrument to improve service delivery. The Office of the Senior Special Assistant to the President for the Millennium Development Goals has started a conditional grant mechanism intended to transfer funds to the sub-national governments to improve basic service delivery and progress towards achieving the MDGs. The resources that fund this program come from debt relief. The Health Bill that is currently in the National Assembly would create a similar matching grant, the PHC Development Fund.

These matching grants that the federal level is now providing and the future PHC Development Fund could be made conditional on performance, in particular, conditional on increasing the coverage of basic services, particularly population based services that are easy to monitor, such as vaccinations, pre-natal and post-natal care, and so forth. At the moment, the transfers from the MDG office are mainly transfers for capital projects. Similarly, the PHC Fund seems to be mainly focused on the joint financing of capital projects. These projects are needed given the large need for rehabilitation and equipment of facilities. But these resources could also be used for recurrent costs needed to improve the coverage of basic preventive services that remain low. In other words, the amounts of the transfers as well as their continuity could be conditional on performance measured in the increase in the use of services that can be easily monitored.

For this performance based financing to be effective, providers need more autonomy in the use of resources and their remuneration should also be based on achieving results on the ground. At the moment, primary health care facilities only receive resources in-kind from the different levels of government (for example, drugs and supplies). They collect some resources from fees but they cannot use these resources as they have to return them to local governments. With so little autonomy in the use of resources, it is hard to make these public providers accountable to improve service provision. By allowing facilities to retain the resources they obtain from the provision of services and by reducing the in-kind financing of the facilities, they can be more responsive. For instance, if performance based transfers are used, facilities could receive funds also based on achieving a certain level of coverage. The community could offer oversight in the use of resources and can also help in monitoring results.

However, for these conditional grant programs and performance based financing of providers to obtain the intended benefits, there is a need for systematic collection, analysis, and reporting of information (Bird, 2000). This information is needed to verify compliance with goals and to assist future decisions on whether or not to continue providing grants to sub-national governments or providers.

Information on service delivery is not just important for creating accountability from local governments to other levels of government but also to increase accountability of LGs in relation to clients. More information to the community on service delivery can increase accountability of local governments and also of providers. Monitoring the performance of government policies, through report cards can also work. These report cards have been used in different countries. In Nigeria, a scorecard assessment of rural governments in nine states, financed by the project LEEMP in 2005, was in essence a report card. Thus, publicizing broadly the results of the assessment and repeating it, could serve to monitor local governments performance.

Information on service delivery is also important to increase the accountability of providers in relation to clients. Increasing information and community awareness on the services facilities provide and the resources they have to provide them and on the credentials and standard of services of providers can help.

To ensure providers accountability towards the delivery of quality services, it is also necessary to ensure they do not face disincentives in their work. As describe before, often providers are paid with delays and work in difficult conditions. Providing them with the needed equipment, supplies, and in-time remuneration could certainly help.

Contracting-out services to the private sector is also an option to explore. Contracts are difficult to monitor and enforce, in particular contracts for clinical services. However, it is possible to start by contracting out services that are easily to monitor and are highly cost-effective such as social marketing of consumables (insecticide treated nets, ORS sachets, condoms) and population based services such as vaccinations, micronutrient supplementation, and so forth. Making these contracts based on performance, for instance based on achieving a pre-specified coverage level would certainly align providers incentives with the achievement of these targets (see Loevinsohn, 2008). At the moment, some services in the country are contracted-out to NGOs, as is the case of HIV/AIDS preventive services. As experience builds with the

design and monitoring of contracts, other services, including curative clinical services, could also be contracted.

Given the difficulties involved in improving the “long route” of accountability, in the near future, improving client’s power in relation to providers might have the largest results. Recent initiatives to revitalize health committees and to ensure their participation in the management of health facilities have already started to produce some effects. In Kaduna the SMOH, with the support of DFID-financed Partnership for Transforming the Health System (PATHS), is implementing an initiative to build capacity in PHC committees, so that they can play a more prominent and proactive role in health and to ensure that the community voices “can be heard by health providers and the government” (Operation Manual for Health Facility Committees in Kaduna State). The Kaduna Facility Health Committee Strengthening Initiative centers the role of the Committee around the health facility, so that it can support the facility work and link it with the nearby community. PATHS has also supported similar initiatives in Ekiti and into less extent in Jigawa, Kano, and Enugu.

The initiative in Kaduna is meant to increase “client’s power” in relation to providers not only through the facility health committees’ (FHC) participation in the management and monitoring of the facilities but also through encouraging clients complaints and redress mechanisms. The FHC in the states are encouraged to set up suggestion boxes, establish formal systems for client complaints, and undertake surveys of client satisfaction. The members of the revitalized FHC have also been trained to advocate in front of policy makers, in particular those that control the budgets, for issues affecting the performance of the PHC.

Many states have started to implement programs to offer “free” services to women and children. This policy can provide an opportunity to make the income of providers depend more on the services they provide. The subsidy could be paid directly to the client through vouchers and not to the provider as has been done until now. In many urban and semi-urban areas in Nigeria there are multiple providers, both public and private. By subsidizing the demand and giving patients a choice of providers, vouchers can create incentives among providers to improve service delivery. Vouchers are increasingly being used in many developing countries to improve access and quality of services; including some sub-Saharan African countries such as Kenya, Tanzania, and Uganda.

Finally, community insurance schemes can also increase the client’s power in front of the providers. They can contribute to health care costs and increase utilization (Carin et al., 2005). These schemes buy services in bulk from the facilities, increasing thus the power of the community in relation to providers. There are already some functioning community-based health insurance schemes in Nigeria, although at the moment they only cover a very small percentage of the population.



# Introduction

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The delivery of quality primary health care (PHC) services can have a large impact on the health of Nigerians. Many of the most cost-effective health interventions to prevent and treat the major causes of mortality and morbidity in the country and progress towards the health Millennium Development Goals (MDGs) can be offered at this level of care. In addition, equity concerns draw attention to PHC as the poor in Nigeria are more likely to seek care in PHC facilities than the rich (FMOH & World Bank, 2005).

The importance of primary health care in the country has long been recognized by the government. In 1975, three years before the Alma-Ata conference on PHC, the Nigerian government started to put in place a PHC system in the entire country through the Basic Health Services Implementation Scheme (1975-1983). In 1992, the federal government created the National Primary Health Care Development Agency to assist states and LGAs to develop PHC. More recently in 2000, the government introduced the Ward Health Service System to ensure better community mobilization for health.

One of the goals of the National Economic Empowerment and Development Strategy (NEEDS) is to improve the health status of the population as a mean to reduce poverty. To achieve this goal, NEEDS emphasizes the importance of continuing the focus on the strengthening of preventive and curative PHC services. The state governments have also recognized the importance of PHC. Accordingly, the State Economic Empowerment and Development Strategies (SEEDS) also aim at improving these services.

The strengthening of basic health services has also been a major concern of donors. The World Bank and DFID Country Partnership Strategy (CPS) 2005–2009 aims at supporting the country on its progress to reach the MDGs. At the federal level, this strategy proposes analytical work to support the development of national strategies and policies for human development. In the lead states, the CPS proposes focusing on improving the availability, quality, demand, and utilization of basic health services. This is also a major concern for the Canadian International Development Agency (CIDA) in the states where it is currently supporting the health sector: Bauchi and Cross Rivers.

This economic and sector work (ESW) aims to contribute to these efforts by filling some knowledge gaps. This study was jointly produced by the Federal Ministry of Health, the National Primary Health Care Development Agency, the Canadian International Development Agency, and the World Bank. More specifically, and in accordance to the CPS, the purpose of this study is three fold: (i) to contribute to the

evidence base of the federal government's health system reform efforts; (ii) to inform the Bank's and CIDA's sector policy dialogue with the government; and (iii) to inform the current and eventual health support programs of both donors at state level.

This study represents the second phase of the Nigeria Health, Nutrition, and Population Country Status Report (CSR). The first phase aimed at analyzing the health situation of the poor and how the health system was performing in terms of meeting their needs. This first phase identified PHC as the weakest chain in the entire health sector and the level of care the poor use the most. This second phase of the CSR is therefore focused on the analysis of the delivery of PHC services. In contrast to the first phase, this study is mainly based on primary data, data collected through facility, health personnel, and household surveys. This study follows a similar methodology used by a facility survey implemented in Kogi and Lagos in 2002 (Das Gupta, Gauri, and Khemani, 2003). However, this study is focused in the collection of information not previously available, such as detailed roles and responsibilities of the LGA and states and community perceptions of PHC services.

As one of the purposes of this study is also to support on-going or eventual health support programs of CIDA and the World Bank at the state level, the study was done on the states where CIDA is currently working, Bauchi and Cross Rivers, and in some of the World Bank lead states, Kaduna and Lagos.

## **Objectives**

To better design and implement policies to improve service delivery for the poor it is necessary to generate the needed evidence and to understand the underlying relationships between the different actors involved in the delivery of health services. This study aims precisely at generating this information and helping us understand the variables affecting the performance of facilities and frontline providers. This information will help us generate policy recommendations on how to improve performance at this level.

The specific objectives of this second phase of the CSR are to have a better understanding of:

- Performance of PHC personnel and facilities, both public and private, and the variables driving this performance.
- Flow of public funds to PHC facilities.
- Roles of the states and LGAs in the delivery of PHC.

Although Primary Health Care services cover a broad range of interventions that can take place both in and outside health care facilities (see box 1.1); this study will be focused on those services that are currently being offered in PHC facilities or through community outreach done by health personnel based on these facilities. This study only looks at formal public and private PHC facilities; patent medicine vendors, traditional medicine practitioners, or pharmacies were not included in the study.

**Box 1.1. Declaration of Alma-Ata: International Conference on Primary Health Care, Alma-Ata, (presently Almaty, Kazakhstan) 1978**

The Declaration of Alma-Ata defines Primary Health as “essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every state of their development in the spirit of self-reliance and self determination. It forms an integral part both of the country’s health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.”

Following this declaration, PHC includes at least the following eight components: (i) education concerning prevailing health problems and the methods of preventing and controlling them; (ii) promotion of food supply and proper nutrition; (iii) an adequate supply of safe water and basic sanitation; (iv) maternal and child health care, including family planning; (v) immunization against the major infectious diseases; (vi) prevention and control of locally endemic diseases; (vii) appropriate treatment of common diseases and injuries; and (viii) provision of essential drugs.

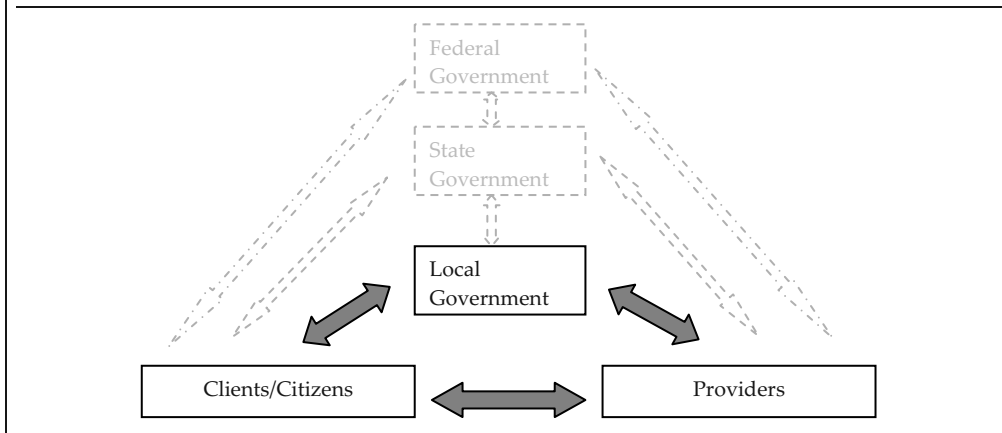
**Conceptual Framework**

This study follows the *World Development Report (WDR) 2004* framework on service delivery to understand the performance of PHC services in Nigeria. The framework of the WDR 2004, *Making Services Work for Poor People*, explains service performance through three accountability relationships: “voice” between citizens/clients and politicians/policy makers; “compact” between policy makers and providers; and “client power” between clients and providers. Clients, the patients in a PHC facility, have a relationship with providers, nurses, community health workers and others. For private providers, the user can hold them accountable through their payments. If they are not satisfied with the service they can look for services somewhere else. However, for public services there is often no direct accountability of the provider to the client; this “short route” of accountability is often not working. However, there is often a “long route” of accountability by which the user can make the elected government accountable for the provision of quality services and the elected officials or “policy makers” can then influence providers to ensure that these services take place.

In Nigeria there are three “long routes” of accountability as shown in figure 1.1. The three levels of government, federal, state, and LGAs, have some responsibility in the provision of health services. These three levels of government have relationships with citizens and with PHC providers, in particular the states and LGAs.

If any of these accountability relationships “client power” or “short route” and “voice/compact” or “long route fails”, service delivery would also fail (World Bank, 2003). For instance, if the incentives faced by policy makers are not aligned with those of communities regarding the delivery of health services, these services will not be a priority and not enough resources will be spent on them. However, even if policy makers are committed to improve PHC, if they are not able to generate a working “compact” with providers by, for instance, not assessing or rewarding performance according to whether they improve services, the delivery of services will also fail (World Bank, 2003).

**Figure 1.1. Accountability Relationships between Politicians/Policy Makers, Providers, and Citizens/Clients**



Source: Adapted from WDR 2004 and World Bank 2006.

Finally, “client power” or the short route of accountability is difficult to achieve in the short run, especially in the case of curative health services when there are large information asymmetries between patients and medical personnel. Nevertheless, “client power” can significantly improve service delivery if the bargaining power of the client is strengthened in relation to providers.

Before analyzing the accountability relationships between policy makers, providers, and clients this study assesses the performance of PHC facilities and personnel and explains the institutional organization of the PHC sector in Nigeria. For this assessment, the study describes: (i) facilities’ building conditions; (ii) access to water, sanitation, and electricity; (iii) access to an uninterrupted supply of drugs and medical supplies; (iv) access to equipment; (v) services offered; (vi) availability of qualified medical personnel; (v) characteristics of personnel; (vi) responsiveness of these services to the needs of women, men, girls and boys in the community: working hours, courtesy, waiting time for services, others. In addition, this section evaluates the differences between public and private (for profit and non-for-profit) providers.

As shown in figure 1.1, due to the decentralization of service delivery in the country there are three different levels of government with some responsibility in the delivery of services. The study thus describes the institutional organization of PHC service delivery and the division of responsibilities across the three levels of government.

The assessment of roles and responsibilities regarding PHC services is followed by an analysis of the accountability relationships that might explain services’ performance. The focus of the study is on analyzing the policy maker-provider and the provider-client relationship. The client-policy maker relationship is more difficult to analyze using surveys and changes in this relationship go beyond the health system; however, an analysis is done based on secondary data and information collected through interviews with state and local government officials in two states that participated in this study: Kaduna and Cross River.

*Clients-policy maker relationship:* The study looks at the accountability of the government and in particular local governments in relation to consumers regarding PHC services. The study examines local government revenues, public financial management, and health expenditure.

*Policy makers-providers relationship:* When policy makers have strong incentives to make PHC services work, how successful they are depends on how their commitment is “passed-on” to providers (World Bank, 2003). This then depends, among other things, on how effective are the providers managed. The study evaluates the incentives faced by PHC personnel in both the public and private sector. In particular, the study looks at remuneration schemes; rewards and sanctions linked to performance in both the public and private sector; other non-financial incentives faced by providers; and provider coping mechanisms when faced by inadequate incentives.

*Provider-client relationship:* To understand the reasons behind the strength or weakness of this accountability relationship, the study will assess community participation on the management and monitoring of health services: existence of functioning health committees with community participation, and availability of a functioning complaining mechanism.

## **Methodology**

The study was based mainly on extensive quantitative survey work at the level of PHC facilities, health care personnel, and households in their vicinity. Three basic survey instruments for primary data collection were used:

- *Health Facility Survey*—This survey was administered to facility heads to obtain information on general facility characteristics and services provided.
- *PHC Staff Survey*—This survey of staff of health facilities included interviews of a sample of health facility staff from all facility occupations, and collected information on their general characteristics, working environment, and incentives.
- *Household Survey*—This survey of health facility clients (that is, households living near the care facilities) was used to collect data on their personal characteristics, facility usage, and satisfaction with services and care.

Data collection was conducted in May 2007 in Bauchi, Cross River, and Kaduna, followed by Lagos in September.

The study is then based on the *Final Report* submitted by the firms that implemented the surveys: EPOS Health Consultants; Canadian Society for International Health; and Center for Health Sciences Training, Research and Development (CHESTRAD).

Information on the sample size determination and sampling procedures can be found in Appendix A. Table 1.1 shows the sample size accrued at the end of the study.

**Table 1.1. Analysis of Survey Questionnaires**

State	LGA	Health Facility Survey	PHC Staff Survey	Household Survey
Kaduna	Ikara	25	25	134
	Kauru	22	35	111
	Chikun	20	56	116
	<b>State</b>	<b>67</b>	<b>116</b>	<b>361</b>
Cross Rivers	Calabar	26	101	135
	Yakurr	25	102	137
	Yala	21	95	135
	<b>State</b>	<b>72</b>	<b>298</b>	<b>407</b>
Bauchi	Bauchi	36	165	220
	Ganjuwa	26	56	150
	Itas/Gadua	13	54	79
	<b>State</b>	<b>75</b>	<b>275</b>	<b>449</b>
Lagos	Epe	10	21	141
	Ifelodun/Ajeromi	28	57	160
	Surulere	48	114	99
	<b>State</b>	<b>86</b>	<b>192</b>	<b>400</b>
<b>Survey Total</b>	<b>All States</b>	<b>300</b>	<b>881</b>	<b>1617</b>

Source: EPOS, CISH, CHESTRAD, 2007.

# Context

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With 140 million people, Nigeria is the ninth most populated country in the world, representing close to 20 percent of the population in sub-Saharan Africa (SSA). It has a very diverse population with more than 300 ethnic groups and more than 500 languages spoken. Administratively, the country is organized as a federation with a federal government, 36 states, and 774 LGAs. The country is often sub-divided in six geopolitical zones: North West, North Central, North East, South West, South South, and South East.

### **Health Outcomes and Access to Health Services in Nigeria**

Each year many lives, especially children's, are lost in the country (FMOH and World Bank, 2005). One in every ten children dies before his first birthday and one in every five before his fifth. Child malnutrition rates are also very high (see table 2.1), although the percentage of children chronically malnourished has been decreasing over time. These outcomes are low not only in absolute terms but also when compared to other countries in Sub-Saharan Africa.

Communicable diseases, particularly malaria, pneumonia, and diarrhea, often linked with malnutrition, are the major causes of mortality and morbidity among children under five. These diseases can be prevented or treated at a very low cost, but the coverage of many of the health interventions needed to prevent and treat them is very low (FMOH and World Bank, 2005). For instance, in 2003 the Nigeria DHS showed that only 1 percent of children under five slept under an insecticide treated bed net; only 17 percent of children six months of age or younger were exclusively breastfed; only 34 percent of children under five received a vitamin A supplement; and only 13 percent of one year olds were fully immunized. There are signs of improvements in some health services, particularly in child immunization. The government has taken many measures to improve immunization and to eradicate polio. In the case of polio, 2007 was the year with the lowest polio incidence since 2002 and the lowest incidence ever of type 1 polio, the most virulent of all polio viruses. Despite these recent improvements, Nigeria is not likely to achieve the health related Millennium Development Goals. All of the interventions to address these issues are PHC interventions. Some of them can be provided by the households themselves after some orientation from a health provider, either inside health facilities or through community outreach.

Maternal mortality is also thought to be high. Each year an estimated 59,000 women die from pregnancy related causes (WHO, UNICEF, UNFPA, World Bank, 2005). Some of these deaths as well as some neonatal deaths can also be prevented. However, data from the DHS 2003 shows that only 60 percent of pregnant women

receive antenatal care, even fewer births (36 percent) are attended by skilled personnel, and access to emergency obstetric care remains limited. Although access to referral care is essential to improve maternal survival; PHC interventions can prevent some of the indirect causes of maternal deaths such as anemia, malaria, STI as well as the major factors underlying medical causes (for example, high fertility rate and low contraceptive use rate).

Health outcomes and utilization of health care in the country are not only low but vary considerably across regions (table 2.1). In general, the North East and North West regions and rural areas fare considerably worse off than the rest of the country, a pattern that partly reflects regional income inequalities as the levels of poverty are higher in the north of the country.

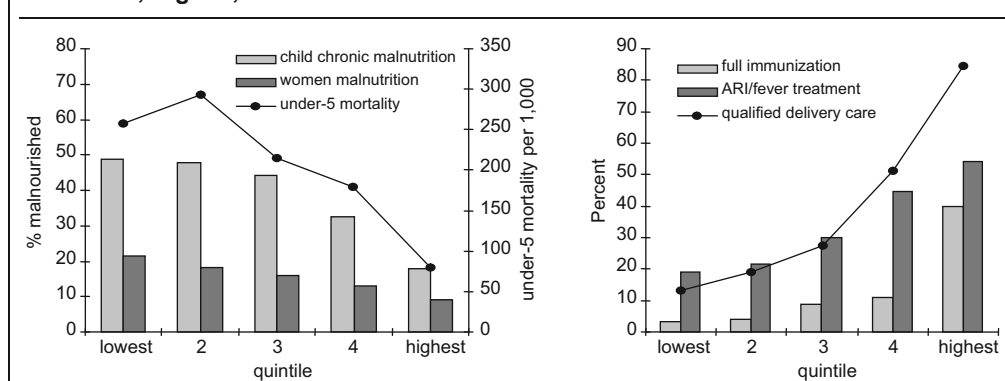
**Table 2.1. Health Outcomes and Health Care Utilization across Geopolitical Zones, Nigeria 2003**

	Under five mortality	% of children stunted	Total fertility rates	BMI percent < 18.5	Full immunization	Delivery in health facility
North Central	165	31	5.7	6.6	12.4	45.4
North East	260	37	7	23	6.0	17.1
North West	269	53	6.7	19.7	3.7	10.4
South East	103	23	4.1	8.2	44.6	84.1
South South	176	16	4.6	11.1	20.8	53.2
South West	113	23	4.1	16.7	32.5	77.6

Source: DHS 2003.

There are also large income inequalities in both health outcomes and utilization of health care. As seen in figure 2.1, infant and child mortality rates among the poorest 20 percent of the population are 2.5 times higher than among the richest 20 percent. Full immunization rates among the poorest 20 percent of the population are 13 times lower than among the richest 20 percent. Similarly, the chronic malnutrition rate among the poor is about three times higher than among the rich; this is the highest rich-poor difference reported in any SSA country where DHS data is available (FMOH and World Bank, 2005).

**Figure 2.1. Socioeconomic Disparities in Health Outcomes and Basic Service Utilization, Nigeria, 2003**

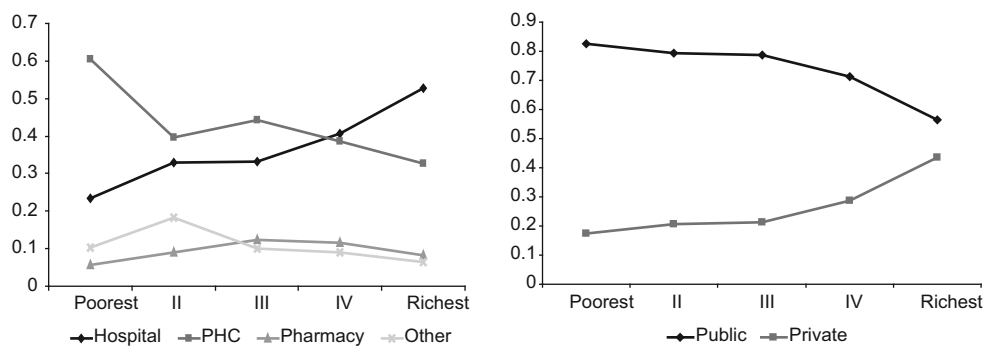


Source: Federal Ministry of Health and World Bank 2005 based on DHS 2003 data.

Data from the Nigerian Living Standard Survey (NLSS) 2004 also confirms the large inequalities in health service utilization. Among those ill or injured in the two weeks preceding this survey, only about three people in every five visited a health care provider. However, among the poorest 20 percent of the population, only 30 percent of people with an illness or injury visited a health provider. In contrast, 72 percent of people with an illness or injury in the richest end of the income distribution did.

The NLSS data also showed that the poor are more likely to use PHC facilities for outpatient care and are less likely to use a private provider than the rich. As seen in figure 2.2, the higher the income level, the higher the proportion of people that used a hospital for outpatient consultation. As seen in the graph, the poor are more likely to use a PHC facility (that is, clinics, dispensaries, health posts, and others); while the higher the household expenditure level, the more likely the individual visits a hospital. Similarly, the use of formal private providers increases with household expenditure level.

**Figure 2.2. Utilization of Outpatient Care across Population Consumption Quintiles and Type of Provider or Type of Provider Ownership**



Source: Nigeria Poverty Assessment (World Bank, 2006), estimations based on NLSS 2003–04.

### Context in States Included in the Study

The results of this study are not meant to be representative of the entire country, but of the four states sampled: Bauchi, Cross River, Kaduna, and Lagos. There are large differences across these states in terms of population, income levels, and economic activities (table 2.2). Information on health outcomes and access to health care at state level is scarce, and even though information at geopolitical zones can be indicative in some cases it can also be misleading. For instance, Kaduna is part of the North West geopolitical region, but it has the lowest poverty rate in the region.

Bauchi state is a predominantly rural state located in the North-East region of Nigeria. Agriculture is the main economic activity of the state. It is one of the poorest states in the country with about 77 percent of its population living under the poverty line (World Bank, forthcoming). Bauchi is also the state with the fourth largest income inequality index. Administratively, the state is subdivided into 20 LGAs.

**Table 2.2. Population, Poverty, and Inequality Indicators, Nigeria 2004**

Geopolitical zone	State	Population in millions	Poverty head count	Poverty gap	Poverty severity	Gini index
North East			67.6			
	Bauchi	4.7	77.0	33.1	14.1	43.6
South South			51.3			
	Cross River	2.9	55.0	23.7	9.5	40.7
North West			63.9			
	Kaduna	6.0	40.9	12.7	3.8	36.3
South West			43.2			
	Lagos	9.0	67.0	35.6	18.9	49.7
National		140.0	54.7	22.8	9	41.2

*Source:* population figures Census 2006, all other data from Nigeria Poverty Assessment.

Cross River state is situated in the South South region. It has a population of about 2.9 million distributed into 18 LGAs. The poverty rate in the state is similar to the national average, indicating that more than half of the population lives under the poverty line. The majority of the state's population is engaged in subsistence farming.

Kaduna is the third most populous state located in the North-West of the country with an estimated population of 6.1 million people. In contrast to Bauchi and Cross River, a large share of Kaduna's population lives in urban and semi-urban areas. As much as 20 percent of the population concentrates in two urban areas: Kaduna and Zaria. Despite the important share of the population living in both urban and semi-urban areas, the main economic activity of the population remains agriculture. About two out of every five people in the state live under the poverty line; however, the poverty rate in the state is lower than the national average. Administratively, Kaduna is sub-divided into 23 LGAs.

Lagos state is the second most populous state in the country. It has the second most populated city in Africa after Cairo. According to the 2006 census, the state has 9 million people, the majority of them living in urban areas. The census estimated that there were close to 8 million people living in Metropolitan Lagos alone. About two thirds of the population lives in poverty and the state has the second largest inequality index in the country. Administratively, the state has 20 LGAs of which 16 are part of Metropolitan Lagos.

# Status of Primary Health Care Services

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### **Organization of the Primary Health Care System**

A few years before the Alma Ata conference, the Nigerian government created the Basic Health Services Implementation Scheme (1975-1983) to ensure “the effective development of primary health care services in the country” (NPHCDA and FMOH, 2004). This innovative scheme introduced and developed different types of community health care personnel to staff PHC facilities. These PHC workers are unique to Nigeria. Currently, the community health workers have been streamlined into three, the Community Health Officer (CHO), Community Health Extension Worker (CHEW), and Junior Community Health Extension Worker (JCHEW). The scheme intended to build a Comprehensive Health Center, 4 Primary Health Care Centers, and 20 clinics and mobile clinics in each LGA.

In December of 2000, the Ward Health Service (WHS) System was introduced to ensure that health districts coincide with political wards (serving 20,000–30,000 people). Each ward is subdivided into sections in urban areas and into groups of villages in rural areas. According to the WHS Operational Guide (NPHCDA, 2004), each section or group of villages should have a health post. Each ward should also have a Ward Health Center that should serve as first reference to the Health Posts in the same ward.

The current organization of the PHC system reflects the WHS as well as previous government schemes. Public PHC facilities are then classified in the following four types:

- Type I: According to the 2004 PHC guidelines<sup>1</sup> each community should have one type I facility which are health posts or dispensaries. Nevertheless, some states have progressively eliminated these facilities.
- Type II: A group of communities with about 2000 people should have a Primary Health Care Clinic or type II.
- Type III: Primary Health Care Centers or Ward Health Centers; there should be one PHC in each ward.
- Type IV: Comprehensive Health Centers were meant to be a referral for all PHC in the same LGA. They offer limited surgical services. In practice, many of these facilities have been upgraded and currently work as general or cottage hospitals.

This classification does not apply to the private sector; rendering difficult the classification of these facilities.

## Survey Results

The health facility survey sampled a total of 300 facilities; 179 (60 percent) identified as public, 118 (40 percent) private and 3 were of unknown ownership. The sample included 75 facilities in Bauchi, 72 in Cross River, 67 in Kaduna, and 86 in Lagos.

Health Posts and dispensaries represented 30 percent of the sample; Health Centers, Health Clinics, and Maternities (BHC) represented 51 percent of the sample and Comprehensive Health Centers (CHC) 16 percent (table 3.1). The final 4 percent were hospitals. Government facilities made up 60 percent of the sample and private facilities the other 40 percent. The health posts were concentrated in rural and semi-urban areas (78 percent). CHCs, on the other hand, were concentrated in urban areas (70 percent).

**Table 3.1. Health Facility Type by LGA Type**

	Rural	Urban	Semi-Urban	Total
Health Post	31	19	35	86
Basic Health Center	29	68	56	152
Comprehensive Health Center	4	35	10	49
Hospital	2	6	3	11
Total	66	128	104	298

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

*Note:* The classification of rural, urban, and semi-urban LGA relates to government classification of the LGAs. However, rural LGAs might include urban centers, and urban LGAs rural areas. Thus, this classification is just a proxy for location of the facility.

There are large variations in the organization of PHC delivery across states. As seen in table 3.2, while the majority of health facilities in Bauchi are health posts or dispensaries, there are no health posts in Lagos. In Cross River and Kaduna there is a similar distribution of health posts and health centers and clinics. In these states, about 30 percent of all facilities are health posts or dispensaries. There is also a large difference in the distribution of health facilities between public and private ownership. While the majority of the facilities in Lagos are privately owned, in the other three states, the majority of facilities are public.

Most facilities can respond to urgent needs as they have staff on call 24 hours a day; however, only one in four is open 24 hours a day, seven days a week. There is a large difference across states in the number of facilities that remain open at all times. Facilities in Lagos and Cross River are more likely to open 24h a day 7 days a week. Facilities in the other two states are less likely to do so, especially in Kaduna where less than 50 percent of facilities are open 7 days a week and only 65 percent are open 24 hours a day, limiting access to health services.

**Table 3.2. Basic Information from All States (in %)**

	Bauchi	Cross River	Kaduna	Lagos	Total
<i>Facility Type</i>					
Health Post	59	33	26	-	29
Basic Health Center	29	42	59	73	51
Comprehensive Health Center	12	21	12	20	16
Hospitals	—	4	3	7	4
<i>Ownership</i>					
Government operated	83	78	67	21	60
Private for profit operated	16	22	28	73	37
Non-profit operated	1	—	5	6	3
<i>Hours of Operation</i>					
open 5 days a week	24	19	50	9	24
open 7 days a week	74	74	48	86	72
open 24 hrs per day	55	82	65	87	73
24 hrs staff on call	88	87	91	88	89
<i>Referral</i>					
Refers patients	92	99	90	95	93
Ease of communication of referral center with facility	50	49	54	56	52

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

There are major constraints in the referral system in all states. Although most of the facilities refer patients, only about half of them have easy communication with the referral center. The average walk time to referral centers is 60 minutes and the drive time 20 minutes; nevertheless, the chance of encountering difficulties with transportation is considerable, since only 31 percent of the health facilities have access to transportation to deal with emergency cases.

The federal government through NPHCDA is trying to ensure the existence of a Ward Minimum Health Care package in all wards by 2012. This package includes the provision of a vehicle for referral in health facilities providing Basic Emergency Obstetric Services (BEOC). However, only 36 percent of all health centers have access to a motor vehicle and only 12 percent of health posts and dispensaries do.

### **Infrastructure and Amenities**

Although there are large differences across states, in general, the infrastructure of PHC facilities is in very poor condition. As seen in table 3.3, most facilities do not have taps with running water and only about one in every four has access to safe water.<sup>2</sup> More than three out of every five facilities do not have a toilet, waste disposal, sharp disposal, or sterilizing equipment. In addition, as many as two in every five facilities have leaky roofs and broken doors or windows.

There are however significant differences across states. Facilities in Lagos fare considerably better than facilities in other states. This is partly due to the large differences in the PHC organization in Lagos. In this state most facilities are privately owned, located in urban areas, and are higher level health facilities. Facilities in Cross River fare better than those in Bauchi and Kaduna in terms of availability of equipment, but not in terms of the condition of the infrastructure.

**Table 3.3. Primary Health Care Facilities, Infrastructure, and Amenities across States (in %)**

	Bauchi	Cross River	Kaduna	Lagos	Total
<i>Infrastructure</i>					
Taps with running water	22	26	27	80	41
Safe water	66	70	65	91	72
Electricity	44	60	31	95	60
<i>Amenities</i>					
Lab	15	25	16	46	26
Phone	14	26	15	67	32
Waste disposal	25	56	56	96	60
Sharp disposal	39	81	69	95	72
Fridge/Icebox	68	77	47	74	67
Toilet	43	68	46	95	65
Sterilizing equipment	41	62	39	91	60
<i>Condition</i>					
Leaky roof	65	43	52	11	41
Broken doors/window	61	40	56	12	41
Cracked floor	73	44	57	16	46
Clean	86	97	66	86	85

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

### Services Available

The ward minimum health care package (WMHCP) as defined in 2007 includes six groups of interventions: (i) control of communicable diseases (Malaria, STI/HIV/AIDS), (ii) child survival, (iii) maternal and newborn care, (iv) nutrition, (v) non-communicable disease prevention, and (vi) health education and community mobilization (NPHCDA, 2007). This health care package includes priority interventions that should be provided in PHC centers on a daily basis at all times. The package refers mainly to interventions to be provided in ward health centers but it does not specify if all or just a subset of interventions will be provided in health posts/dispensaries or in clinics. Previously, the 2004 PHC guidelines established a similar minimum package that did not include non-communicable disease prevention. To determine the current availability of services, the facility survey asked the head of the facility about the services provided. The results are detailed below.

Child and maternal care are the most readily available services. Child care is available in most facilities in all states. Maternal and newborn care services are not as readily available as childcare but as many as three out of every four facilities offer these services. In Cross River, Kaduna, and Lagos almost all facilities offer maternal health services; however, in Bauchi less than half of them offer these services, including many important preventive health services such as pre-natal and post-natal care.

Family planning services are only offered in about two third of facilities. Family planning services are part of the country's PHC program as set in the Guidelines for the Development of Primary Health Care System. These services are also part of the maternal services included in the ward minimum health package. However, as seen in table 3.4, in Bauchi less than half of the facilities offer these services; in Cross River and

Kaduna about three out of every five facilities offer these services and in Lagos about 80 percent of them do.

**Table 3.4. Percentage of Facilities Offering Basic Services across States**

	Bauchi	Cross River	Kaduna	Lagos	Total
Antenatal	45	90	95	90	80
Postnatal	45	77	81	90	74
Family Planning	43	65	64	82	64
Childcare	85	87	86	90	87
Maternal Care	45	73	81	93	73
Adolescent/Youth	28	57	42	59	47
STI	39	58	33	67	51
Eye Care	34	15	20	14	21

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

The control of STIs is part of the ward minimum health care package; however, only half of the facilities offer this service. PHC facilities in Bauchi and Cross River are the least likely to offer these services.

### Equipment and Medical Supplies

The facilities are also lacking some equipment needed to offer basic maternal and child services. As seen in table 3.5, there is a large shortage of basic equipment and medical supplies. Facilities were more likely to have basic medical consumables such as bandages, sterile gloves, and syringes. Similarly, most facilities have some basic equipment such as thermometers, sphygmomanometers, and stethoscopes.

**Table 3.5. Percentage of Facilities with Equipment and Medical Supplies across States**

	Bauchi	Cross River	Kaduna	Lagos	Total
Generator	18	39	22	84	43
Refrigerator	27	39	23	95	49
Sphygmomanometer	65	73	70	99	78
Child weigh scale	49	60	52	95	66
Microscope	16	30	28	51	32
Thermometer	65	90	72	93	81
Bandages	60	70	70	87	72
Sharps container	37	50	41	95	58
Stethoscope	68	78	83	95	82
Obstetric forceps	44	38	33	73	49
Vacuum extractor	19	15	21	51	28
Antiseptic for skin	44	59	50	86	61
Disposable syringes & needles	81	93	86	99	90
Sterile gloves	53	79	71	89	74
Malaria smear	15	26	20	42	27
Blood centrifuge	15	26	12	53	28
Urine test strip	29	48	32	71	46

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

However, other basic equipment and supplies such as children weigh scales, sharp containers, forceps, and antiseptics are in low or very low supply. For instance, child weigh scales which are needed to monitor child growth are only available in 66 percent of facilities.

There are large differences across states in the percentage of facilities having the equipment and medical consumables needed to offer basic services. As seen in table 3.5, Bauchi is the state where facilities are the least likely to have the equipment and consumables. Facilities in Lagos, in contrast, are the most likely to have them.

Not all equipment shown in table 3.5 will be needed in all facilities, for instance type I facilities are not likely to offer emergency obstetric care and will therefore not need a vacuum extractor. Nevertheless, even though only 29 percent of the facilities sampled were type I facilities; only 28 percent of facilities had a vacuum extractor and only 50 percent obstetric forceps. Vacuum extractors are part of the minimum ward health care package the government is trying to generalize; however, in the Ward Operational Guidelines of 2004, they were not included as part of the standard PHC equipment. Finally, type I facilities are not likely to offer lab test and thus are not likely to need a microscope or malaria smears. However, as seen in the table, very few facilities had microscopes (32 percent) or malaria smears (27 percent). As in the case of the vacuum extractors, microscopes and malaria smears are included in the WMHCP as defined in 2007, but they were not part of the standard PHC equipment as listed in the operational guidelines of 2004.

## Pharmaceuticals

A large percentage of facilities do not have basic drugs, and micronutrient supplements on stock (table 3.6). For instance, even though malaria is the main cause of morbidity and mortality among children under five only 86 percent of facilities have an anti-malarial drug on stock. Similarly, only 2 out of every 3 facilities have oral rehydration salts (ORS) sachets. Contraceptives are also not easily available as only about 50 percent of facilities have condoms or oral or injectable contraceptives. Indeed, only 63 percent of facilities have any type of contraceptive on stock. Similarly, micronutrient supplements for children and pregnant women are also in short supply. Only 59 percent of facilities have vitamin A supplements and only three of every four facilities have iron folate on stock. Lagos facilities in general are more likely to have pharmaceuticals on stock.

Despite all efforts and considerable improvements in immunizations in the last years, maintaining vaccines on stock remains challenging. In the last few years, the Nigerian Government has increased efforts to improve children immunization rates. It has eliminated the large supply problems the country experienced in 2003 when only 14 percent of children were fully immunized (DHS 2003). These efforts have brought some success, particularly in polio immunization. However, large part of this success is due to the National and Regional Immunization days as routine immunization remains weak. Indeed, as seen in table 3.6, only about half of the facilities had vaccines on stock at the time of the interview. Partly this is due to the lack of capacity of many facilities to keep vaccines refrigerated as only 67 percent have a fridge or ice box.

**Table 3.6. Percentage of Facilities Having Basic Pharmaceuticals and Vaccines in Stock across States**

	Bauchi	Cross River	Kaduna	Lagos	Total
Chloroquine	77	85	67	66	73
ACT e.g. Coartem	54	69	51	82	65
Fansiddar	42	35	51	81	54
Paracetamol	82	89	81	88	85
Antibiotics	73	82	76	81	78
ORS sachets	67	69	55	69	66
Pregnancy test kit	33	46	38	71	48
Vitamin A	44	74	52	66	59
Iron/Folate	56	83	59	91	73
Condoms	29	71	35	49	47
Oral contraceptives	37	64	39	65	52
Injectable contraceptives	43	59	51	69	56
Benzyl benzoate	37	44	28	60	44
Co-trimoxazole	64	65	63	82	70
<i>Vaccines</i>					
BCG	41	44	42	72	51
Measles	45	44	40	72	52
DPT	45	45	42	72	52

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

Nigeria has a large number of patent medicine vendors and thus some basic drugs can be easily found outside health facilities. However, this is not the case for vaccines which makes their lack of availability in the facilities a major challenge.

All resources (drugs, supplies, and vaccines) face issues of re-ordering and restocking. While facilities reported that pick up from supplier was the most frequent method of obtaining drugs and supplies, yet there were issues in receiving new supplies on time about 25 percent of the time. The reasons noted most frequently for these delays were inadequate transportation or out of stock at central store. Administrative issues in ordering or processing of requests were also reported as an issue to a lesser degree.<sup>3</sup>

### Health Personnel

With the exception of Lagos, most PHC services are staffed by community health workers (for example, CHOs, CHEWs, JCHEWS) and nurses/midwives. As seen in table 3.7, on average PHC facilities have about 11 people on staff, the majority nurses, midwives, and both CHEWs and JCHEWs. There are however large differences across the states. In the two states in the north, PHC facilities have about 7–8 people on staff, including attendants and security guards. In Lagos and Cross River, PHC facilities have a larger number of personnel working in the facility and are more likely to have a doctor on staff.

**Table 3.7. Average Staffing of PHC Facilities across States and Across Type of Ownership**

	Bauchi	Cross River	Kaduna	Lagos	Public	Private	Total
Total	7.8	11.8	6.9	15.4	9.5	13.0	10.9
Doctors	0.3	0.6	0.3	1.9	0.2	1.8	0.8
Community health officers	0.3	0.8	0.3	0.3	0.5	0.2	0.4
Nurse	0.8	1.1	0.7	3.1	0.5	3.1	1.6
Midwives	0.7	0.4	0.5	3.1	0.5	2.3	1.2
CHEW	0.7	1.7	1.3	0.2	1.4	0.2	0.9
JCHEW	0.8	1.3	0.4	0.2	0.9	0.3	0.7
Primary health worker	0.2	0.5	0.2	0.0	0.3	0.1	0.2
Community-based worker	0.3	0.3	0.1	0.1	0.3	0.1	0.2
Environmental health officer	0.1	0.0	0.1	0.3	0.2	0.0	0.1
Lab technician	0.2	0.2	0.2	0.6	0.2	0.7	0.4
Pharmacy technician	0.2	0.1	0.1	0.4	0.1	0.3	0.2
Medical records officer	0.1	0.3	0.3	0.5	0.2	0.4	0.3
Dental assistant	0.0	0.1	0.1	0.0	0.1	0.1	0.1
Attendant	1.7	2.6	1.1	2.9	2.2	2.0	2.1
Security guards	0.7	1.3	0.9	1.3	1.1	0.9	1.1
Other	0.7	0.6	0.2	0.4	0.6	0.3	0.5

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

Note: The hospitals sampled are not included in this table.

There are also large differences between public and private providers. Private providers are more likely to be staffed by nurses, midwives, and doctors than by community health workers.

Most public PHC facilities are understaffed. The country is trying to provide a minimum health care package in all wards by 2012. However, very few facilities have the proposed health manpower that will be needed to offer this package (see box 3.1). Health Post and dispensaries are the only PHC facilities that meet this proposed standard as they all have on average at least one JCHEW. In table 3.8, BHCs combine information from both health clinics and PHC centers. However, as seen in the table, on average the facilities sampled do not meet the proposed standard for clinics let alone that of health centers, as they have less than 4 JCHEWs, less than 2 CHEWs, and less than 3 nurses/midwives.

### Box 3.1. Proposed Health Manpower for a PHC Center to Provide the Minimum Health Care Package

- **Health Post:** 1 Junior Community Health Extension Worker (JCHEW).
- **Primary Health Clinic:** 2 Community Health Extension Worker (CHEW); 4 JCHEWs
- **Primary Health Care Center (Ward Health Center):** 1 Community Health Officer (CHO); 1 Public Health Nurse; 3 CHEWs; 6 JCHEWs; 3 Nurse/midwives; 1 Medial Assistant (optional)

Source: NPHCDA. 2007. Ward Minimum Health Care Package

**Table 3.8. Average Staffing of Public Health Facilities across Facility Type**

	HP	BHC	CHC	Hospitals
Total	4.9	10.6	18.7	100.9
Doctors	0.0	0.2	0.4	11.4
Community health officers	0.2	0.7	1.4	1.6
Nurse	0.1	0.5	1.2	24.0
Midwives	0.0	0.7	1.5	4.9
CHEW	0.9	1.5	2.7	0.0
JCHEW	0.7	0.9	1.7	0.0
Primary health worker	0.2	0.4	0.3	0.9
Community-based worker	0.4	0.2	0.2	0.4
Environmental health officer	0.0	0.3	0.6	0.7
Lab technician	0.0	0.1	0.4	9.0
Pharmacy technician	0.0	0.1	0.3	6.6
Medical records officer	0.1	0.2	0.4	8.1
Dental assistant	0.0	0.0	0.0	2.9
Attendant	1.1	2.6	4.3	13.4
Security guards	0.7	1.4	1.7	6.1
Other	0.2	0.7	1.5	10.9

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

On average, facilities in urban LGAs have more staff than those located in predominantly rural LGAs. As seen in table 3.9, PHC facilities located in urban LGAs, on average, have about 13 workers, almost twice as many as facilities located in rural LGAs. These facilities are more likely to have doctors, nurses, and midwives on their staff than facilities located in predominantly rural or semi-urban LGAs. In contrast, facilities in rural LGAs on average are likely to be staffed by CHEWs.

**Table 3.9. Average Staffing of PHC Facilities across LGA Type**

	Rural	Semi-urban	Urban
Total	7.4	9.8	13.1
Doctors	0.2	0.7	1.3
Community health officers	0.2	0.4	0.5
Nurse	0.4	0.9	2.6
Midwives	0.4	1.4	1.6
CHEW	1.1	0.9	0.8
JCHEW	0.7	0.8	0.6
Primary health worker	0.2	0.3	0.2
Community-based worker	0.4	0.2	0.1
Environmental health officer	0.1	0.1	0.1
Lab technician	0.2	0.2	0.5
Pharmacy technician	0.1	0.2	0.3
Medical records officer	0.2	0.2	0.4
Dental assistant	0.0	0.0	0.1
Attendant	2.0	1.9	2.4
Security guards	1.0	1.1	1.0
Other	0.2	0.5	0.6

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

This difference in health personnel in rural and urban areas is partly because facilities in rural areas are more likely to be health posts or dispensaries, while facilities in urban areas are likely to be higher level facilities. However, as seen in table 3.10, when looking only at basic health care facilities (health clinics and health centers), this difference between rural and urban areas persists.

**Table 3.10 Average Staff in Basic Health Centers across Type of LGA**

	Rural	Semi-urban	Urban
Total	8.2	11.5	13.6
Doctors	0.4	1.1	1.4
Community health officers	0.2	0.4	0.5
Nurse	0.7	1.4	2.8
Midwives	0.8	1.9	1.9
CHEW	0.9	0.8	0.8
JCHEW	0.5	0.6	0.5
Primary health worker	0.3	0.2	0.1
Community-based worker	0.2	0.1	0.1
Environmental health officer	0.3	0.1	0.1
Lab technician	0.2	0.4	0.4
Pharmacy technician	0.0	0.3	0.3
Medical records officer	0.1	0.3	0.4
Dental assistant	0.0	0.1	0.1
Attendant	2.3	2.2	2.5
Security guards	1.3	1.2	1.1
Other	0.2	0.3	0.7

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

### Exemption and Waiver Programs

Facilities in all states offer exemptions and waivers but to a limited degree. The cost of receiving health care is the main barrier to access health services in the country (FMOH and World Bank, 2005). To reduce these barriers and also to increase the utilization of services with large externalities, such as immunization, there are exemptions and waiver programs in all states. As seen in table 3.11 below, facilities in all states offer exemptions to some health services such as routine immunization, family planning, and antenatal care. Facilities in Cross River most frequently offered free services, while those in Lagos had the lowest percent of exemptions. However, these exemptions were not standard as most of them were offered less than 50 percent of the time.

Concerning fee waivers for disadvantaged groups, most groups were generally asked to pay for services with the exception of clients with TB/leprosy and onchocerciasis. Lagos had the highest percent of people required to pay in all groups. This is not surprising as Lagos is the state with the largest percentage of private facilities.

**Table 3.11. Percentage of Facilities Offering Exemption and Waivers across States**

	Bauchi	Cross River	Kaduna	Lagos
<i>Services that are free</i>				
Routine immunization	49	72	55	33
Family planning	18	35	28	22
Antenatal care	23	48	35	29
Other	45	41	29	90
<i>Patients that must pay for services</i>				
Disabled	57	33	52	80
TB/leprosy	21	9	40	82
Onchocerciasis	20	29	40	83
Elderly	57	44	73	79
Very poor	57	47	70	75
People under 18 yrs	59	72	75	82
Children under 5 yrs	53	69	73	80
Pregnant women	56	76	79	80
Important people	60	74	79	83

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

#### *Differences across Rural and Urban Areas and across Type of Facility*

There are large differences in the conditions of PHC facilities across states. As seen in the previous sections, facilities in Lagos fare considerably better than facilities in the other three states in terms of infrastructure, availability of equipment, medical supplies, and pharmaceuticals. This is partly explained by the very different organization of the PHC sector in that state when compare to the other three. Most facilities in Lagos are private facilities, are located in urban areas, and tend to be either health centers of CHC. As will be described in this and next section, facilities in urban areas, higher level facilities, and privately owned ones fare better than the rest.

**Table 3.12. Opening Hours across Facility Type and LGA Type (in %)**

	Open 5 days	Open 7 days	Open 24 hours a day
<i>Type of facility</i>			
HP	44	51	43
BHC	16	81	83
CHC	18	78	87
<i>Location</i>			
Rural	38	60	72
Urban	12	85	84
Semi-urban	30	64	60

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

Higher level facilities and facilities in urban areas are more likely to offer a larger variety of services seven days a week, 24 hours a day. Health posts offer a limited number of services and are usually staffed by a limited number of personnel. In consequence, they are not likely to be open all the time and are not likely to cover all the needs of the population. As seen in table 3.13, health post/dispensaries only offer a very limited set of services, mainly childcare. In contrast, most PHC services are provided in CHC. Similarly, BHCs (health clinics and health centers) also offer most PHC services with the sole exception of control of sexually transmitted diseases and adolescent youth care. Also, as seen in table 3.13, facilities in urban areas are likely to offer most PHC services. This is not the case in semi-urban areas and particularly in rural areas.

The services provided by PHC facilities depend on the level of care and thus health posts and dispensaries are the least likely to offer services outside childcare. However, even at the level of health centers and CHC not many facilities offer services outside maternal and child care and family planning. As a result, the difference in availability of PHC services in some states can then be explained by a larger proportion of HP services among their PHC facilities. Indeed as discussed before, while 59 percent of facilities in Bauchi are health post/dispensaries; there are none of these facilities in Lagos.

**Table 3.13. Percentage of Facilities Offering Basic Services across Type of Facility and across Type of LGAs**

	HP	BHC	CHC	Rural	Urban	Semi-urban
Antenatal	52	92	92	75	87	75
Postnatal	41	86	87	63	82	70
Family planning	33	73	87	48	70	65
Childcare	85	87	91	83	88	89
Maternal care	48	81	89	67	78	72
Adolescent/youth	35	42	74	35	48	52
Sexual health & diseases	30	55	65	50	60	40
Eye care	19	18	24	17	27	15

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

Facilities in urban areas as well as higher level facilities are more likely to be better equipped than other facilities. CHC which are concentrated in urban areas are more likely to be well equipped. About 90 percent of them have the equipment needed to offer child health services such as child weigh scale. More than 90 percent of them have needed medical supplies such as bandages, disposable syringes, and sterile globes. These facilities should be able to offer basic emergency obstetric care; however only 70 percent have obstetric forceps and only 48 percent have vacuum extractors. They are also not so well stock of other supplies such as antiseptics, urine test strips, and malaria smears. Not all equipment in table 3.14 will be needed in a health post or dispensary. However, basic equipment and supplies such as thermometers, antiseptics, stethoscopes, sharp container, and sterile gloves are in very short supply.

**Table 3.14. Percentage of Facilities with Basic Equipment across Type of Facility and Type of LGA**

	HP	BHC	CHC	Rural	Urban	Semi-urban
Generator	4	55	61	23	58	36
Refrigerator	6	60	83	19	71	40
Sphygmomanometer	57	85	89	79	90	62
Child weigh scale	36	74	88	53	72	66
Microscope	6	33	59	15	46	25
Thermometer	67	85	88	74	87	77
Bandages	66	71	81	75	77	65
Sharps container	26	66	83	35	75	51
Stethoscope	67	85	94	88	89	69
Obstetric forceps	34	48	67	32	60	47
Vacuum extractor	7	30	44	11	37	28
Antiseptic for skin	38	66	77	48	79	47
Disposable syringes and needles	86	90	96	83	94	90
Sterile gloves	55	77	94	61	83	71
Malaria smear	33	212	188	10	40	20
Blood centrifuge	2	32	52	5	43	23
Urine test strip	11	55	70	18	67	38

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

The difference in availability of basic pharmaceuticals across type of facilities is much smaller than that of availability of equipment. As seen in table 3.15, the availability of certain types of pharmaceuticals is not very different across facility type.

**Table 3.15. Percentage of Facilities with Basic Drugs and Vaccines in Stock across Type of Facility and Type of LGA**

	HP	BHC	CHC	Rural	Urban	Semi-urban
Chloroquine	75	75	69	58	74	83
ACT e.g. Coartem	53	65	80	68	66	63
Fansiddar	27	60	69	25	69	52
Paracetamol	83	84	90	75	87	90
Antibiotics	74	77	84	64	84	80
ORS sachets	63	64	73	48	72	70
Pregnancy test kit	19	56	67	17	70	41
Vitamin A	50	57	76	37	66	64
Iron/Folate	55	79	84	56	78	78
Condoms	31	45	78	35	52	47
Oral Contraceptives	38	52	76	24	61	58
Injectable contraceptives	44	57	75	27	65	63
Benzyl benzoate	30	46	53	24	56	41
Co-trimoxazole	61	73	74	57	76	70
<i>Vaccines</i>						
BCG	35	55	61	36	59	49
Measles	39	56	61	41	58	49
DPT	39	55	63	41	50	49

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

For instance, in the case of anti-malarial drugs, HPs are more likely to have chloroquine than ACTs or Fansidar, while CHCs are more likely to have ACTs. However, on average the percentage of facilities having any anti-malaria drug on stock is not very different across type of facilities (from 85–87 percent). In general, CHCs are better stocked of other pharmaceuticals but the differences are not as large. Similarly, the availability of pharmaceuticals is not very different between HP and BHC. The main difference appears in pharmaceuticals and micronutrient supplements related to maternal health and family planning such as pregnancy test kit, iron/folate, and contraceptives. As shown before, HPs are less likely to offer maternal and reproductive health services than BHC and CHC; this thus explains the lower availability of these pharmaceuticals in these facilities.

The difference between rural and urban areas in the availability of pharmaceuticals is large. Facilities located in rural areas are less likely to have any type of pharmaceutical, even the most common ones such as anti-malaria drugs, ORS sachets, and vitamin A supplements. For instance, while 77 percent of facilities in rural areas have an anti-malarial drug on stock, 87 percent and 92 percent of facilities in semi-urban and urban areas respectively have. The differences in the availability of ORS sachets and vitamin A supplements are even higher. Finally, very few facilities in rural areas have contraceptives or pregnancy test kits or iron/folate supplements.

The stock of vaccines in all facilities regardless of type or location is very low. CHC facilities were more likely to have vaccines. However, only about 63 percent of facilities had vaccines on stock at the time the survey was implemented.

#### *Private and Public Health Facilities*

Private facilities are more likely to be located in urban areas. About 56 percent of facilities sampled in urban areas were private; in contrast, only 12 percent of facilities in rural areas were privately owned as well as 37 percent in semi-urban areas (table 3.16). In addition, while 43 percent of public health facilities were health posts or dispensaries, most private facilities were higher level facilities.

Privately owned facilities are more likely to cover all needs of the population served. These facilities are more likely to be open seven days a week, 24 hours a day (table 3.16). They can also communicate better with the referral center and are more likely to have emergency vehicles available. They can thus respond to most needs of the community.

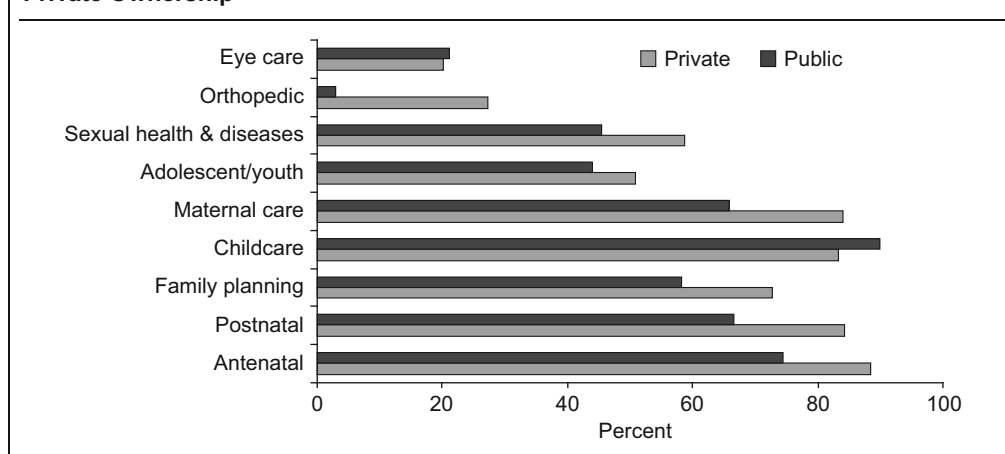
Private facilities are also in much better condition than other facilities (figure 3.1). They are more likely to have access to safe water and sanitation, and to have a fridge/icebox and both sharp and waste disposals. The infrastructure is also in much better condition as only very few are in need of repair.

**Table 3.16. Basic Information on PHC Facilities across Public and Private Ownership (in %)**

	Private	Government
<i>Hours of operation</i>		
Open 5 days a week	6	3
Open 7 days a week	90	72
Open 24 hours per day	91	62
24-hours staff on call	92	86
<i>Amenities</i>		
Communicate easily with referral center	57	50
Emergency vehicle available	58	15
Taps with running water	78	16
Safe water	95	57
Electricity	94	38
Lab	55	8
Phone	76	6
Waste disposal	91	39
Sharp disposal	88	60
Fridge/icebox	83	27
Toilet	91	47
Sterilizing equipment	86	43
<i>Condition</i>		
Leaky roof	15	57
Broken doors/window	15	57
Cracked floor	23	60
Clean	87	83

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

Private facilities are slightly more likely to offer a larger set of services than public facilities (figure 3.1). Although public facilities are more likely to offer child health care services, private facilities are more likely to offer maternal health services such as postnatal and antenatal care as well as family planning services.

**Figure 3.1. Percentage of PHC Facilities Offering Basic Services across Public and Private Ownership**

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

Private facilities are also better equipped and are more likely to have basic pharmaceuticals on stock (table 3.17). In some cases these differences are large. For instance, there is almost a 50 percentage point difference between the proportion of private and public facilities having a child weigh scale, sterile gloves, malaria smear, and urine test strips.

**Table 3.17. Percentage of Facilities with Basic Equipment across Public and Private Ownership**

	Private	Public
Generator	81	17
Refrigerator	92	69
Sphygmomanometer	77	59
Child weigh scale	57	15
Microscope	95	72
Thermometer	97	56
Bandages	83	41
Sharps container	90	76
Stethoscope	70	35
Obstetric forceps	47	15
Vacuum extractor	92	40
Antiseptic for skin	98	85
Disposable syringes and needles	97	59
Sterile gloves	54	8
Malaria smear	59	8
Blood centrifuge	79	25
Urine test strip	82	27

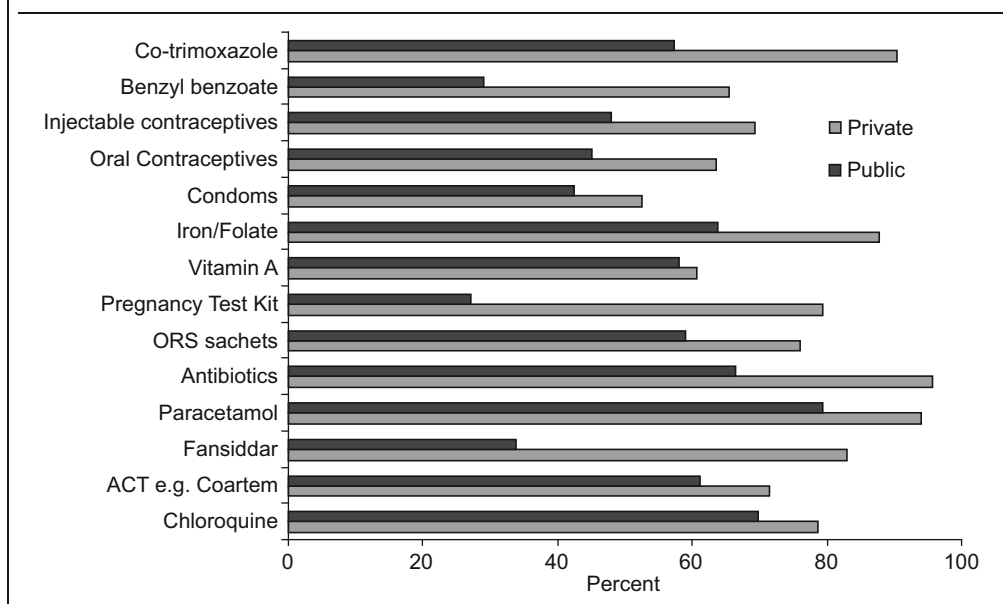
*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

A similar situation can be observed in the case of pharmaceuticals, private facilities are more likely to have these basic pharmaceuticals on stock than public facilities (figure 3.2).

In the case of availability of vaccines, there is no difference between public and private facilities. Only about 50 percent of both public and private facilities had them on stock.

Private facilities have less difficulty re-ordering resources, generally having percentages of re-order problems at less than half those of government facilities. Re-order problems generally occurred in less than 20 percent of the private facilities compared to approximately 40 percent for government facilities. These differences were noted for drugs, supplies and to a lesser extent vaccines.<sup>4</sup>

**Figure 3.2. Percentage of Facilities Having Basic Pharmaceuticals and Vaccines on Stock across Public and Private Ownership**



Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

#### *Households Satisfaction with Services*

To better understand whether PHC facilities respond to the needs of the communities a household survey was implemented for this study. This component of the study was designed to interview households in the same enumeration area where the facilities sampled were located with the aim of obtaining feedback on their performance. The household survey is not meant to be representative of the households in each state but of the households close to a PHC facility. In essence it was a client satisfaction tool, in addition to gathering some key information about the households. A total of 1613 households responded to the survey. The sample of households was distributed by state as follows: 28 percent in Bauchi, 25 percent in Cross River, 22 percent in Kaduna and 24 percent in Lagos. Thirty-five percent of the sample was in rural LGAs, 25 percent in urban LGAs and 40 percent in semi-urban LGAs. From the facility ownership perspective, 51 percent of households stated the nearest PHC was owned by the LGA, 20 percent by the state, 2 percent by the federal government and 26 percent by the private sector.<sup>5</sup> A more detailed description of the household sample can be found in Annex B.

As with the facility survey, access to core services largely varies across states (table 3.18). The sample of households was selected to ensure that the households had geographical access to services. However, not all services are offered in all facilities. In Bauchi, the percent availability was similar to the other states for child care, referrals, emergency, and general clinical services. Bauchi generally had a lower percent availability for all remaining services. Cross River, Kaduna, and Lagos had similar percent availability for antenatal, postnatal, child care, maternal care, referral and emergency services. Kaduna had lower percent availability for services such as STI

control, and outreach. Lagos generally had the highest percent availability for most services, including outreach services.

**Table 3.18. Availability of Basic Health Services in Nearest Facility across States (in %)**

	Bauchi	Cross River	Kaduna	Lagos
Antenatal	36	87	86	94
Postnatal	34	84	68	91
Family planning	24	65	43	84
Child care	76	83	90	94
Maternal care	36	74	83	84
Adolescent/youth care	13	57	63	65
Sexual health & diseases	11	41	17	51
Public health education	31	63	41	56
Referrals	63	56	52	75
Outreach	30	52	18	49
Eye care	24	34	13	38
General clinical	88	63	49	84

Source: Household Survey (EPOS, CSIH, CHESTRAD, 2007).

Satisfaction with the services provided by PHC facilities is low in all states. Less than 50 percent of households were satisfied with the availability of drugs, equipment, medical supplies, and staff. The pattern of satisfaction across the states mirrors the availability of the equipment and supplies in health facilities across states. Households in Bauchi and Kaduna were the least satisfied, followed by households in Cross Rivers and Lagos. Satisfaction with waiting time and information provided in terms of disease control and care and information on facility management was highest in Cross River and Lagos.

The pattern of satisfaction with facility staff attitude was different (table 3.19). Households in Bauchi were the most satisfied with the attitude of health care staff while those in Kaduna the least satisfied. This was, in general, the health service aspect that received the largest percentage of satisfaction. However, less than 60 percent of household heads were satisfied with the staff attitude.

**Table 3.19. Household Satisfaction with Nearest PHC Facility across States (in %)**

	Bauchi	Cross River	Kaduna	Lagos	Total
Drug supply	19	43	12	44	29
Availability of supplies	25	50	15	43	35
Availability of staff	23	50	19	61	37
Attitude of staff	70	51	42	62	57
Availability of equipment	11	25	7	51	21
Availability of diagnostic services	21	30	11	44	26
Information on diseases and care	21	38	22	52	31
Information on facility management	20	45	23	42	32
Waiting times	45	46	26	51	42

Source: Household Survey (EPOS, CSIH, CHESTRAD, 2007).

Although household satisfaction with private facilities is higher than with public ones, satisfaction with PHC facilities in general is low. As seen in table 3.20, household satisfaction with both types of facilities is generally low, especially for availability of equipment, diagnostic services, and information on disease control and care. Households in general were slightly more satisfied with private providers, particularly regarding to drug and staff availability, attitude of staff and waiting time.

**Table 3.20. Household Satisfaction with Nearest PHC Facility across Facility Ownership and across Type of LGA (in %)**

	Private	Public	Rural	Urban	Semi-urban
Drug supply	59	23	14	40	32
Availability of supplies	47	31	25	35	43
Availability of staff	53	32	26	38	45
Attitude of staff	65	55	37	63	76
Availability of equipment	38	17	15	25	23
Availability of diagnostic services	36	23	19	31	26
Information on diseases and care	36	30	32	24	38
Information on facility management	40	30	26	30	36
Waiting times	60	38	36	58	33

Source: Household Survey (EPOS, CSIH, CHESTRAD, 2007).

Reflecting the condition of the health facilities in rural and urban areas, household satisfaction with PHC facilities was lowest in rural areas. Satisfaction with different aspects of PHC facilities was lowest in rural areas with the sole exception of information on disease control and prevention. The largest differences in the level of satisfaction between rural, urban, and semi-urban areas were related to drug supply and attitude of staff.

The level of satisfaction among women was much higher than among men. The household survey interviewed household heads to obtain their opinion on satisfaction with the PHC facility nearest to the home. The majority of the women that answered the survey were located in either Lagos or Cross River where satisfaction with PHC facilities was in general higher. However, as table 3.21 shows, also in Lagos and Cross River female heads seem to be slightly more satisfied with the PHC facilities

**Table 3.21. Difference in Satisfaction with Nearest PHC Facility between Male and Female Heads of Households (in %)**

	Total		Lagos		Cross River	
	Male	Female	Male	Female	Male	Female
Drug supply	26	45	34	53	40	51
Availability of supplies	31	52	50	55	46	61
Availability of staff	30	62	50	70	47	61
Attitude of staff	57	58	55	67	51	54
Availability of equipment	17	39	48	53	23	33
Availability of diagnostic services	22	41	41	46	27	43
Information on diseases and care	27	50	42	60	35	44
Information on facility management	28	47	32	50	44	50
Waiting times	40	50	45	55	45	51

Source: Household Survey (EPOS, CSIH, CHESTRAD, 2007).

in their localities than male heads. There were few women respondents in Kaduna; as there were no many observations, the results are not shown in the table. In any case, the pattern was similar to that in other states. The only difference was regarding satisfaction with drug supply and attitude of staff where women's satisfaction was lower in this state.

### Education and Promotion Activities of PHC Services

There are particular weaknesses regarding the education and promotion activities of PHC facilities, particularly in the two northern states. One of the components of PHC as listed in the Alma-Ata declaration is the education concerning prevailing health problems and the methods of preventing and controlling them. According to the PHC guidelines (NPHCDA, 2004), these activities are also included in the standard package of services that PHC facilities should provide. However, as seen in previous tables, only few households reported having access to both outreach and public health education activities in all states but particularly in Kaduna and Bauchi. Similarly, the level of household satisfaction with the information on disease prevention and control is also very limited. In both Bauchi and Kaduna, less than 25 percent of households were satisfied with the information received.

Less than half of households were visited by a PHC provider; these visits are more likely to be done by public providers in rural areas, particularly in the two northern states (table 3.22). About 45 percent of the households were visited by a PHC provider. In Bauchi and Kaduna a larger percentage of households received a visit by a health provider, in contrast, in Lagos and Cross River less than 40 percent of households did. Most of these visits took place in rural areas and were done by public providers.

**Table 3.22. Percentage of Households near a PHC Facility Visited by Facility Health Personnel across States, Type of Ownership, and Type of LGA**

		Visit
<b>State</b>	Bauchi	58
	Cross River	38
	Kaduna	52
	Lagos	31
<b>Location</b>	Rural	67
	Urban	33
	Semi-urban	40
<b>Ownership</b>	Public	51
	Private	30

*Source:* Household Survey (EPOS, CSIH, CHESTRAD, 2007).

The majority of these visits are related to immunization followed by malaria prevention and control as can be seen in table 3.23. This is not surprising due to the large efforts of the government in the last years to improve immunization, mainly through national and regional immunization days that have focused attention in the northern states where immunization rates are low.

**Table 3.23. Reason for Health Facility Worker Visit across States (in %)**

Reason for visit	Bauchi	Cross River	Kaduna	Lagos
TB dots	2	1		1
Malaria	40	16	12	10
Immunization	36	68	86	75
HIV/AIDS	1	1	2	5
Follow-up visit	21	14		9

Source: Household Survey (EPOS, CSHI, CHESTRAD, 2007).

### Service Charges

The percentage of households that report that services are charged in the PHC facility varies largely across states (table 3.24). Bauchi and Cross River were the states where a lower percentage of households reported any charge to some basic services such as antenatal, postnatal, and maternal care. Kaduna was the state with the largest percentage of households reporting any charge for the services provided by the health facility. Even though most PHC facilities in Lagos are privately owned, a lower percentage of households reported a charge in this state than households in Kaduna with exception of general clinical services.

**Table 3.24. Percentage of Services with a Charge across States**

	Bauchi	Cross River	Kaduna	Lagos
Antenatal	18	29	82	55
Postnatal	13	25	62	48
Family planning/contraception	9	11	20	25
Child care	31	39	79	56
Maternal care	13	16	73	35
Adolescent/youth care	11	27	35	29
Sexual health and diseases	4	5	7	12
Public health education	4	9	11	14
Referrals	10	7	14	18
Outreach	3	6	1	14
General clinical	24	30	33	43

Source: Household Survey (EPOS, CSHI, CHESTRAD, 2007).

The households sampled were households in the vicinity of the PHC facilities sampled by the facility survey. However, households confronted with some choice do not necessarily visit their closest facility. Not surprisingly, households in urban areas were the least likely to use the nearest PHC facility. The main reasons given for not patronizing the nearest facility were the lack of equipment and the cost of the service (table 3.25).

**Table 3.25. Household Utilization of Nearest Health Facility across Type of LGA (in %)**

	Rural	Urban	Semi-urban
Households that Patronize nearest PHC facility	82	67	82
<i>Reasons for not patronizing</i>			
Not well equipped	38	29	21
No doctor	35	3	10
Service too expensive	9	39	34
Other	10	24	31

*Source:* Household survey (EPOS, CSIH, CHESTRAD, 2007).

## Notes

*General note:* This chapter presents the results of the surveys of health facilities, health care personnel, and households in their vicinity. The chapter presents a summary of the Final Report of these surveys prepared by EPOS Health Consultants; Canadian Society for International Health; and Center for Health Sciences Training, Research and Development (CHESTRAD).

<sup>1</sup> NPHCDA and FMOH (2004). Operational Training Manual and Guidelines for the Development of Primary Health Care System in Nigeria.

<sup>2</sup> Safe water is defined here as water from the following sources: piped water, borehole, and protected well.

<sup>3</sup> In interpreting this information, the reader should use caution as the responses to the questions on re-ordering included a significant number of invalid or blank entries across different variables.

<sup>4</sup> In interpreting this information, the reader should use caution as the responses to the questions on re-ordering included a significant number of invalid or blank entries across different variables.

<sup>5</sup> However, readers should keep in mind that there are some questions about the classification and coding of some health facilities in the household questionnaire, particularly in Lagos and Cross River States where PHCs were erroneously classified as hospitals either by respondents or enumerators. But since the correct classification (HP, BHC or CHC) was unknown, accurate coding could not be applied. The responses may have over-represented the number of State facilities and the number of hospitals and under reported the number of LGA facilities and the number of primary care facilities, that is, Health Posts, Basic Health Centers and Comprehensive Health Centers.

# Division of Responsibilities among Government Levels

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The previous chapter described the state of PHC facilities in Bauchi, Cross River, Kaduna, and Lagos. Often these facilities have decaying infrastructure, do not offer all basic services, and do not have all the health personnel, equipment, medical supplies, and pharmaceuticals needed to effectively offer services. This chapter and the following ones assess the factors that explain this performance of PHC facilities following the framework of the *2004 World Development Report, Making Services Work for Poor People*. The analysis is based on an evaluation of the relationships between service users, providers, and policy makers. However, as basic service delivery in Nigeria is decentralized, to understand the performance of PHC facilities is also important to understand the relationship between the different levels of government regarding health services. This chapter looks precisely at this relationship.

This chapter is based not only on the results of the health facility survey commissioned for this study<sup>1</sup> but also on secondary data from official and legal documents and on interviews with state and local government officials in two of the states that participated in the study: Kaduna and Cross River.

## **Laws and Policies Informing the Division of Responsibilities for the Delivery of Primary Health Care**

The current Nigerian Constitution of 1999 makes reference to the division of health responsibilities among government levels only when establishing the functions of local government councils. The Constitution assigns the provision and maintenance of health services as a shared responsibility of the states and local governments (LGs).

The National Health Policy of 1988 further defines this division of responsibilities. According to this policy, the federal government sets health policies and guidelines; monitors states and LGs health programs to ensure compliance; trains doctors; and provides tertiary and specialized health services. The state governments provide secondary health services; train nursing, midwifery and auxiliary health personnel; and assist LGs in managing PHC services. Finally, the LGs directly manage PHC services (see FMOH and WB, 2005).

The Health Policy of 2004 follows the general division of health responsibilities established in the 1988 document. This policy, however, creates the State Primary Health Care Management Board to “provide technical support and supervision for the development and delivery of primary health care.” These Boards are to be responsible

for the coordination of planning, budgeting, provision and monitoring of PHC services. The Local Government Health Authority would be under the supervision of the State PHC Management Board to ensure that LGs are involved in the development and provision of health services.

The successful implementation of the 2004 National Health Policy will greatly depend on the approval of the National Health Bill by the National Assembly as this Bill will provide the legal backing to this policy. The Bill delineates further the division of responsibilities across levels of government. Concerning PHC, this bill would give the responsibility of financing PHC services to the three levels of government through the creation of a National Primary Health Care Development Fund to be managed by NPHCDA. This fund would be financed with at least 2 percent of the total Federal Ministry of Health annual budget. However, for states and LGs to receive these funds they would have to contribute with 20 percent and 50 percent respectively of the total cost of the projects. This Fund will work as a conditional grant to the states and LGs, as NPHCDA would not disburse these resources if it is not satisfied with the use of the funds previously given and if states and LGs do not provide their counterpart funds.

Many states have also drafted and often passed bills or regulations clarifying this division of responsibilities. For instance, some states have already established the State PHC Management Boards, often called State PHC Agency. Among the four states included in the survey, Bauchi has already created a State Agency and Kaduna has submitted a bill to the State Assembly that creates a State PHC Agency. Finally, Cross River has drafted a regulation that would give the state more responsibility in the delivery of these services.

### **Division of Responsibilities in Practice**

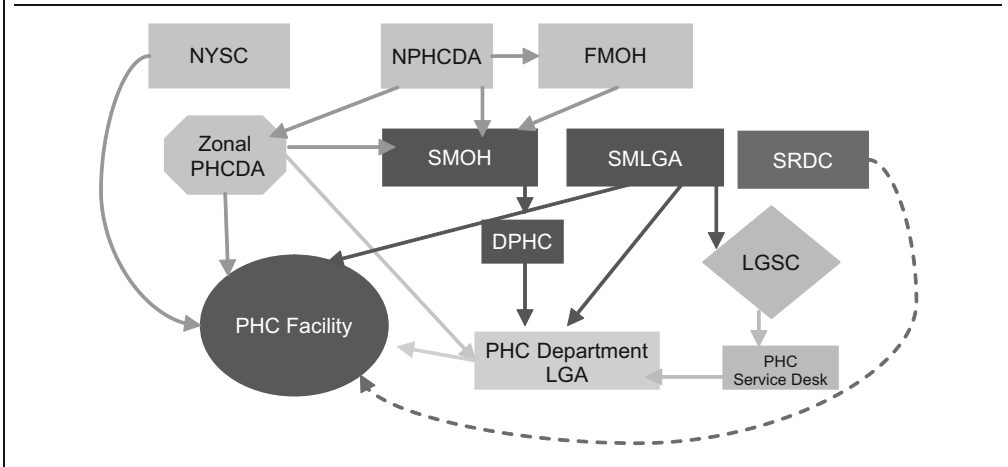
In practice, the division of roles and responsibilities between the three levels of government and especially between the states and LGs is complex and varies across states. There is no single level or single agency in charge of financing, managing, and supervising these services; of recruiting, training, and promoting PHC personnel; of setting and paying staff salaries; building and maintaining facilities; and providing drugs and supplies. Often the three levels of government and various agencies within each level participate in these activities, creating duplication and gaps in provision. To illustrate this complexity, the diagrams below show all agencies affecting the delivery of PHC services in two of the states that participated in the survey: Kaduna and Cross River. The responsibilities of the agencies that appear in the diagrams will be detailed in the next paragraphs.

### **Policies and Guidelines**

At the federal government, the Federal Ministry of Health (FMOH) and its parastatal agency, the National Primary Health Care Development Agency (NPHCDA), establish policies and guidelines regarding the provision of PHC services. For instance, both agencies designed guidelines for the development of the PHC system in Nigeria.

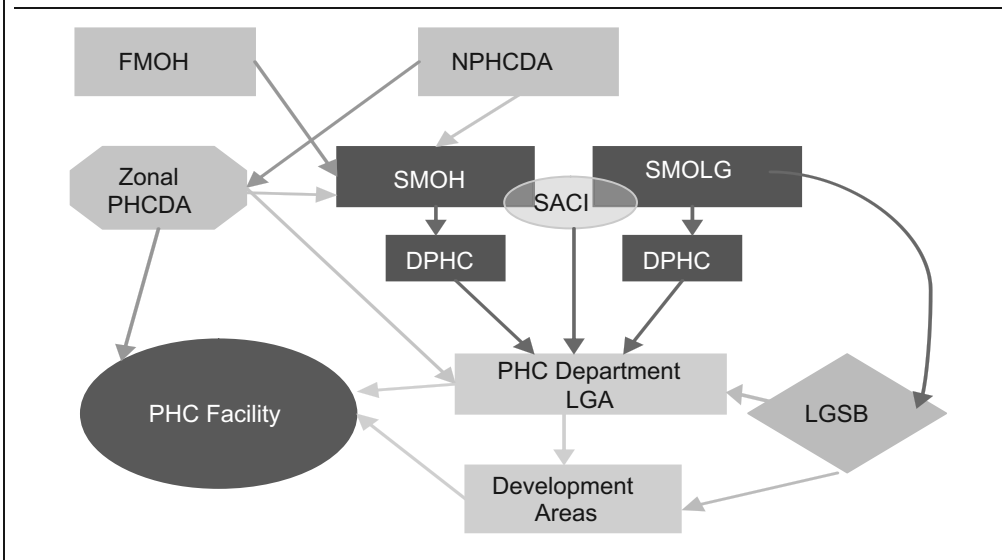
NPHCDA designed an operational guide for the Ward Health System and it also established a ward minimum health care package. The FMOH has also drafted guidelines regarding specific health programs such as malaria, reproductive health, and others.

**Figure 4.1. Government Agencies with Responsibilities in PHC in Cross River**



Source: Authors.

**Figure 4.2. Government Agencies with PHC Delivery Responsibilities in Kaduna**



Source: Authors.

The states can also generate policies and guidelines that affect basic health services. For instance, many states have implemented a policy to provide free maternal and child health care services. Among the states that participated in the survey, Kaduna has already started to pilot this policy. At the moment, all public hospitals offer these services but only a small set of PHC facilities do. In Cross River, the new Governor has also announced a similar policy; its implementation is supposed to start in the coming weeks. In addition and as mentioned before, some states have created or intend to create PHC agencies, like Bauchi and Kaduna. Cross River regulation to increase the responsibility of the state in the management of PHC is pending approval from the state executive.

Some states have also generated administrative guidelines that affect the provision of PHC. For instance, the state ministries of local government (SMLG) often generate guidelines concerning local government budget planning and preparation. These guidelines can be very detailed. For instance, in Kaduna the SMLG for the preparation of the 2008 budget sent the LGs a list of “recommended/approved” health areas for inclusion in the budget. This list also includes “recommended/approved” minimum expenditure for some of these areas. Finally, the local government service board or commission (LGSB or LGSC) also sets guidelines regarding management of LG personnel, including PHC workers.

### **Personnel Training**

The initial training of doctors and other university level health personnel is a responsibility of the federal government through the Federal Ministry of Education. The initial training of all other PHC staff, including nurses, midwives, CHEWs, and JCHEWs is a responsibility of the states that run schools of nursing and colleges of health technology where these personnel are trained.

Many agencies participate in in-service training of PHC personnel. NPHCDA offers training of PHC personnel, but also do the state ministries of health and the local government service board or commission. Indeed, a percentage of the Federation Account allocation going to the LGs is managed by the LGSB for the training of LG staff, including PHC.

### **Health Care Personnel Management**

The management of PHC personnel is shared between the LGs and the local government service board or commission. The LGSBs are the agencies with the main responsibility regarding personnel management. They are in charge of hiring, promoting, transferring and firing LGA personnel. They delegate part of this authority to the LGs for personnel grade 1–6. For more senior level personnel, the LGSB retains all this responsibility. In the case of PHC, nurses, midwives, and doctors are grade level 7 and above; thus the LGs do not have complete control over them. The LGs, through their Departments of Primary Health Care, can initiate procedures for hiring, firing, and disciplining health providers, but the final decision is taken by the LGSB.

### Remuneration

The LGs finance the salary of all PHC personnel. However, in the particular case of Cross River, the SMLG manages the payroll. The state deducts from the joint LG account, where the Federation Account allocation is deposited, the salary of all LG staff and pays them directly. This mechanism was implemented after many complaints from LG staff for non-payment of salaries by the LGs.

Finally, the National Youth Service Corps (NYSC), a federal agency, provides a one year service of recently graduated university students, including doctors and other health professionals. Cross River has used this program to ensure the presence of doctors in PHC facilities. The number of doctors and other health professionals varies from year to year, but it is usually small. There is less than one doctor per LGA; limiting thus the impact of this program. These health professionals are meant to give services in all the facilities in the LGA. They are usually based in either the LG headquarters or in the largest PHC facility.

### Infrastructure: Construction and Maintenance

The results from the facility survey show that the construction of PHC facilities is done primarily by local governments (table 4.1). There is large variability in the role of LGs across the states, partly reflecting the presence of the private sector in the provision of these services and community participation. For instance, in Bauchi, Lagos, and Kaduna the percentage of facilities built by communities/individuals reflects the percentage of privately owned facilities. In contrast, in Cross River almost half of the buildings are provided by communities or individuals while only 22 percent of facilities are privately owned, reflecting a large degree of participation of the local communities in the construction of these facilities.

**Table 4.1. Level of Government or Agency that Provided the Health Facility Building (in %)**

	Bauchi	Cross River	Kaduna	Lagos	Total
Federal government	3	1	3	0	2
State government	1	8	12	7	7
LGA	77	39	45	14	43
Development partner	3	3	13	0	4
Community/individual	15	46	25	76	42
Faith-based organization	4	7	6	2	4

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

LGs are also the main provider of resources for the maintenance of buildings and equipment with exception of Lagos (table 4.2). Cross River has an important participation of the community in the maintenance of buildings and equipment but it is also the state where a larger percentage of facilities reported that this maintenance was not done.

**Table 4.2. Main Agency Responsibility for the Maintenance of Equipment and Buildings across States**

<b>Maintenance equipment</b>					
	<b>Bauchi</b>	<b>Cross River</b>	<b>Kaduna</b>	<b>Lagos</b>	<b>Total</b>
Facility funds	12.2	22.06	25.9	77.65	36.8
Federal government	4.1	7.35	3.5		3.5
State government	1.4	8.82	3.5	1.18	3.5
LGA/PHCMC	70.3	22.06	55.2	17.65	40.0
NGO/donor	2.7			1.18	1.1
Community	1.4	10.29			2.8
Individual		5.88	5.2		2.8
Staff	2.7	7.35	5.2	1.18	3.5
Not done	5.4	16.2	1.7	1.2	5.96
<b>Maintenance of buildings</b>					
	<b>Bauchi</b>	<b>Cross River</b>	<b>Kaduna</b>	<b>Lagos</b>	<b>Total</b>
Facility funds	12.2	19.12	23.7	23.73	35.7
Federal government	2.7	5.88	3.4	3.39	2.8
State government	1.4	5.88	6.8	6.78	3.5
LGA/PHCMC	73.0	25	57.6	57.63	42.3
NGO/donor	1.4	2.94	1.7		1.4
Community	2.7	20.59	3.4	1.69	5.9
Individual		10.29	3.4	3.39	3.5
Staff	1.4				0.4
Not done	5.4	10.3		3.4	4.55

*Source:* Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

Due to the poor condition of PHC both the federal government and the states have increased their participation. NPHCDA has financed the construction of model PHC facilities in each ward. In addition, the states are increasingly participating in the construction and rehabilitation of facilities. For instance, Cross River applied and obtained funds in 2007 from the Office of the Special Assistant to the President for the MDGs. These funds were used for a major PHC rehabilitation program. A total of 130 PHC facilities were renovated (the work is still on-going) and equipped, the facilities were provided with water, solar panels, and cold chain equipment. The state provided an even higher amount of funds than those obtained from the MDG office for this program. Cross River also applied this year for funds to continue the rehabilitation of PHC. This effort took place after the facility survey was implemented and thus is not reflected in the results. Indeed, the survey showed that Cross River was the state with the largest percentage of facilities where the maintenance of equipment (16 percent) and buildings (10 percent) was not done.

In Kaduna, the Development Areas (DAs) also participate in the construction and maintenance of PHC facilities. The DAs were created by a state law in 2004 as a subdivision of the LGA. There are 46 DAs in the state. According to the DA operational guidelines, drafted by the Ministry of Local Governments, they have as functions the

provision and maintenance of dispensaries and clinics. They also provide some equipment and furniture. Lagos also has development areas with similar responsibilities.

### **Procurement and Distribution of Pharmaceutical Products**

All levels of government participate in the procurement and distribution of drugs and medical supplies. At the Federal level, the FMOH procures and distributes to the states pharmaceuticals linked to some health programs such as ITNs and ACTs from the Roll Back Malaria program, and contraceptives from the Reproductive Health program. NPHCDA also participates in the procurement and distribution of drugs by providing seed stocks for drug revolving funds in the model PHC facilities.

The states also participate in the procurement and distribution of pharmaceutical products and consumables to the PHC facilities. For instance, in Cross River, to ensure the procurement of all pharmaceutical products in the essential drug list, the SMOH formed a partnership with a private firm, Worldwide Health Care Limited to ensure the functioning of a drug revolving fund. This program is in charge of procuring all drugs in the essential drug list in the state, facilities and LGs can only get pharmaceutical products from this agency which is part of the Essential Drug Program. This arrangement ensures that all drugs provided in health facilities are approved by NAFDAC, the Nigerian Agency for Food and Drug Administration and Control. This is also a more efficient way of procuring drugs by taking advantage of economies of scale. This program also manages the distribution of other drugs provided free of charge. For instance, it manages the distribution of ACTs and ITNs from the Roll Back Malaria program. In Kaduna, the state procures some of the drugs that are then distributed to the facilities; for instance, it has procured drugs for the free Maternal and Child health program that functions in some of the PHC facilities. To simplify the procurement process and to increase transparency and efficiency, the SMOH has also introduced a bill in the state assembly creating an autonomous agency, the Drug Management Agency to manage all procurements in the state.

The LGs mainly store and distribute pharmaceutical products to the facilities. However, in some instances they have also procured drugs and medical consumables, even vaccines. For instance, in the Bauchi State SEEDS report (BASEEDS) an example is given of a local government council that procured large quantities of vitamin B that “would last for 20 years but only have a shelf life of only 4 years.” In Kaduna, some LGs have also procured drugs and vaccines.

#### *Vaccines*

At the federal level, NPHCDA is the agency in charge of ensuring the availability of vaccines at national level. The international procurement of vaccines is done by UNICEF. All levels of government intervene in their distribution. The agencies involved are NPHCDA, the state MOHs, and the LGs PHC Departments. In Kaduna, an inter-ministerial agency, the State Action Committee for Immunization (SACI), also participates in the distribution of vaccines.

The results of the facility survey show LGs are the main supplier of drugs, consumables, and equipment to PHC facilities; followed closely by the facility’s own funds (table 4.3). The presence of drug revolving funds in all states gives the facility’s

own funds a significant role in the provision of drugs and supplies. There are significant variations across the states in the roles of LGA, states, and facility's own funds. In Bauchi and Kaduna the LGs are the main provider of equipment, drugs, and supplies followed by the facility's own funds. However, as explained above, often the LGs also distribute drugs and medical supplies procured by other levels of government. The facility workers have a significant role in the provision of pharmaceuticals in Bauchi. In Lagos, due to the large share of facilities that are privately owned, the facility's funds represent the main source of procurement of pharmaceuticals and equipment. Cross River state follows a different pattern to that of the other three states. The results of the survey show that in this state LGs are the main suppliers to facilities but the state government plays a larger role than facility funds. However, as in this state the majority of the drugs available at the facility level are provided by the essential drug program revolving fund, it is likely that responses indicating that the state and LGs as main providers were referring to this program.

**Table 4.3. Main Supplier of Medical Consumables, Drugs, and Equipment to PHC Facilities across States**

<b>Medical supplies</b>					
	<b>Bauchi</b>	<b>Cross River</b>	<b>Kaduna</b>	<b>Lagos</b>	<b>Total</b>
Facility funds	11.1	20	25.9	79.76	36.6
Federal government	6.9	8.57	3.5	-	4.6
State government	1.4	21.43	6.9	2.38	7.8
LGA/PHCMC	68.1	34.29	43.1	13.1	38.4
NGO/donor	-	1.43	1.7	2.38	1.4
Community	-	4.29	-	-	1.1
Individual	1.4	2.86	6.9	1.19	2.8
Staff	5.6	2.86	6.9	-	3.5
Not done	5.6	4.3	5.2	-	3.52
<b>Drugs</b>					
	<b>Bauchi</b>	<b>Cross River</b>	<b>Kaduna</b>	<b>Lagos</b>	<b>Total</b>
Facility funds	15.3	26.76	33.3	78.82	40.6
Federal government	4.2	5.63	3.3	-	3.1
State government	-	22.54	5.0	11.76	10.1
LGA/PHCMC	47.2	38.03	45.0	7.06	32.6
Individual	2.8	4.23	3.3	1.18	2.8
Staff	25.0	-	6.7	-	7.6
Not done	5.6	2.8	3.3	-	2.78
<b>Equipment</b>					
	<b>Bauchi</b>	<b>Cross River</b>	<b>Kaduna</b>	<b>Lagos</b>	<b>Total</b>
Facility funds	12.2	17.39	24.1	76.47	35.0
Federal government	6.8	7.25	3.5	2.35	4.2
State government	1.4	15.94	6.9	16.47	6.3
LGA/PHCMC	73.0	30.43	56.9	2.35	42.7
NGO/donor	-	5.8	1.7	-	2.5
Community	-	10.14	-	-	2.5
Individual	-	4.35	3.5	1.18	2.1
Staff	1.4	1.45	1.7	-	1.1
Not done	5.4	7.3	1.7	1.2	3.85

Source: Health Facility Survey (EPOS, CSIH, CHESTRAD, 2007).

## **Supervision**

As in other activities related to PHC, all levels of government participate in the supervision of PHC activities. NPHCDA through its zonal offices supervises and supports the PHC Department in the LGs as well as health facilities. The SMOH also supervises health programs. Finally, the LGs supervise health personnel.

## **Possible Ways Forward**

Given the current situation there is an urgent need to clearly define the functions of each level of government and agencies within each level. Clearly defining who is responsible for what would avoid the existing gaps and overlaps. This is particularly the case for state governments. A larger participation of the state in the provision of these services, as intended in the Constitution, could improve the condition of these facilities and might decrease the fragmentation in the referral system. In particular, the state should be in charge of functions that have scale economies as is the case of the procurement of drugs and medical supplies and the training of personnel, both initial and in-service training.

Due to the poor condition of PHC services, the federal and state governments are increasingly participating in the delivery of these services. However, often these efforts have been fragmented and not well coordinated. The efforts to create PHC Management Boards or PHC Development Agencies at the state level intend to unify in one agency all activities linked to the management of PHC. For instance, in Kaduna the Bill that would create the PHC agency could offer great advantages if this agency concentrates the responsibilities currently shared by the SMOH, SMLG, SACI, and LGSB. This is the intention of the bill. However, if the new agency does not completely substitute all other state agencies but exists parallel to them, the new bill will not be able to improve the situation and will add more confusion and duplication. In addition, if this new agency is created, there will be a further need to clarify what would be the roles of the LGs and DAs in PHC. There will also be a need to clarify the relationship with NPHCDA. Finally, the creation of the agency would still not solve the fragmentation in the referral system as the links between hospitals and PHC facilities are not discussed in the bill.

In Cross River, due to the poor performance of basic services in 2004, the state enacted a law by which the salaries of all LG civil servants were to be deducted from each local government Joint Account. In addition to salaries, this law also stipulated the following deductions: a 2.5 percent of the gross sum in the account is deducted for rural water supply and electrification; a 2.5 percent for a primary school rehabilitation program; and a 2.5 percent for PHC facility rehabilitation program. These resources were then centralized. Different state agencies needed to apply for these resources to implement the rehabilitation programs. This process proved complex for the sectoral ministries to obtain these resources. The Law was revised at the end of 2007; the revised law stipulates among other things a deduction of 9 percent of the LGs Joint Account for the State Rural Development Commission (SRDC). This Commission will be in charge of the primary school and PHC facility rehabilitation program. This Commission exists in parallel to all other agencies in the state that have some

responsibilities regarding PHC service delivery (see figure 4.1). It is not clear what would be the division of responsibilities between this commission and the SMOH.

Under these circumstances, there is also a need for an institutional review of state agencies with health service delivery responsibilities. This will allow a better understanding of the organization of service delivery in each state and will provide needed information to prepare for any adjustment needed to eliminate redundancies and improve service delivery. Bauchi has already started to do this institutional review with the support of the Canadian International Development Agency. Kaduna has done an institutional review of the State Ministry of Health with the support of DFID-financed PATHS program which is a first step for an overall institutional review of the health service delivery architecture of the state.

## Notes

<sup>1</sup> General note: The results of the facility survey discussed in this chapter come from the Final Report for this survey prepared by EPOS Health Consultants, Canadian Society for International Health (CSIH), and Center for Health Sciences Training, Research and Development (CHESTRAD).

# Clients-Policy Makers

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The representatives of all levels of government in Nigeria, as in other democracies, are elected; the president, governors and local government chairmen as well as the representatives to the national, state, and local assemblies are elected. Through this election process the population could hold politicians accountable for the quality of basic services the government provides. However, this relationship does not always work. This chapter aims at looking at this accountability relationship between clients/citizens and policy makers concerning the delivery of PHC services. This chapter focuses the analysis on local governments as the main level of government in charge of managing PHC services.

The chapter draws from different reports including the Nigeria Public Expenditure Management and Financial Accountability Review (PEMFAR, 2007); a study on State and Local Governance in Nigeria (2002); a report on a Scorecard Assessment of Rural LGs in nine states financed by the Local Empowerment and Environmental Management Project (LEEMP); and reports from the Auditor General of LGs of Kaduna (1999–2004) and Cross River (2005–2006). Finally, this chapter also draws from interviews that took place on April of 2008 with state and local government officials from two states that participated in the survey: Kaduna and Cross River.

Accountability can be understood as having the obligation to answer questions regarding decisions and actions (Brinkerhoff, 2004). But for an agency or a level of government to be accountable for delivering services they also need to have the capacity to provide them, in other words, the financial and human resources needed to provide these services. This chapter first assesses the capacity of local governments to offer health services by examining local government revenues, public financial management, and health expenditure. Then the chapter looks more closely at the accountability relationship between local governments and clients and also between local governments and other levels of government.

## **Local Government Revenues and Responsibilities**

Allocations from the Federation Account (FA) represent the largest share of local government revenues. The revenues from oil and gas are centralized in the FA. In the last years, these revenues have represented more than 80 percent of the total revenues of the consolidated government. In contrast, internally generated revenues (IGR) from both states and LGAs have represented less than 5 percent of the total revenues. The remaining 5–10 percent comes from other revenues collected by the federal government such as value added taxes (World Bank, 2007).

The FA revenue is distributed across the three levels of government following a predetermined and transparent allocation formula. This formula has changed considerably since 1999 in benefit of the sub-national governments, who have seen their allocation increased considerably in the last years (World Bank, 2007). As seen in table 5.1, the share of LGAs increased from about 12 percent before 2000 to about 18 percent in 2005.

**Table 5.1. Changes in the Actual Distribution of Federation Account Revenues across Three Government Levels (in %)**

	1999	2000	2001	2002	2003	2004	2005
Federal	68.7	68.4	49.2	47.6	49.4	46.3	45.9
State, including FCT	19.7	19.8	31.6	31.9	31.6	35.3	35.8
Local	11.7	11.8	19.2	20.5	19.0	18.4	18.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

*Source:* World Bank PEMFAR, 2007.

The distribution across states and LGAs of this revenue is however very unequal. The 1999 Constitution reintroduced the mineral derivation rule by which 13 percent of all oil and gas revenues are deducted at source and distributed among the states where the resources are extracted. There are nine oil producing states in Nigeria; however, most production is concentrated in just four states, Akwa Ibom, Bayelsa, Delta and Rivers. These four states receive about 90 percent of all derivation oil payments or about US\$2 billion in 2005, about 40 percent of the total funding available for FA distribution to all 36 states (World Bank, 2007).

The LGAs also receive 10 percent of the state IGR revenues and they also collect own revenues, although their capacity to generate revenues is limited.

For many years there has been a debate on whether local governments receive enough resources to meet their responsibilities.<sup>1</sup> During the last military regime after many complaints for non-payment of primary school teachers' salaries, the federal government started to deduct the salary of teachers from the LGAs FA allocation. Many LGs complained that this deduction at source created such a large reduction of their total revenues that they were left with a "zero-allocation" to fulfill their other responsibilities (World Bank, 2002).

However, the local government revenues have increased considerably in the last years. As shown table 5.1, the LGs' share of the Federation Account has increased significantly since 1999. In addition, the total consolidated revenues of the entire government have also increased considerably thanks to the increasing oil prices (see table 5.2). Finally, government expenditure has also increased, especially local government expenditure, which has experienced an increase of more than 400 percent since 1999. This increase is much higher than that experienced by the state and federal expenditure.

**Table 5.2. Main Fiscal Trends for the Consolidated Government, 1999–2005, (billions of naira)**

	1999	2000	2001	2002	2003	2004	2005
Consolidated government revenues gross	1,011.0	1,985.0	2,247.0	2,064.0	2,795.0	4,126.0	5,642.0
as % of GDP	29.4	42.4	42.1	36.6	37.1	43.1	43.4
Consolidated government revenues, US\$ bn	11.0	19.4	20.1	16.9	21.4	30.9	42.4
Consolidated government expenditure	990.0	1,642.0	2,386.0	2,337.0	2,776.0	3,230.0	4,274.0
as % of GDP	28.8	35.1	44.7	41.5	36.8	33.7	32.9
Subnational (state + local) expenditure	228.0	505.0	768.0	895.0	1,190.0	1,523.0	1,962.0
o/w local government expenditure	60.0	145.0	171.0	170.0	269.0	423.0	602.0
as % of GDP	6.6	10.8	14.4	15.9	15.8	15.9	15.1

*Source:* World Bank PEMFAR, 2007.

Nevertheless, LGs face many limitations in the use of their revenues. Some of these limitations are statutory, such as deductions at source; others are administrative, such as limitations to their autonomy in drafting and executing their budget or in personnel management (World Bank, 2001). For instance, in most states, LGs need clearances from the state governments to spend resources above a threshold or to obtain a loan.

These limitations vary from state to state. For instance, in Cross River and according to the state local government Law of 2007, the state government deducts from the LGAs' joint accounts (where the FA is deposited): (a) the salaries of entire staff in the local government Service; (b) 9 percent for the State Rural Development Commission; (c) 5 percent to the state electrification agency; (d) 2 percent to the State Joint Security Operations Fund; (e) 2 percent to the Ministry of Local Government; (f) 1 percent to the LGSC for staff training; (g) 2.5 percent to the state Joint Social Welfare Service; (h) 1 percent to the border Communities Development Fund; (i) 1 percent for sports development; and (j) 2.5 percent for environmental management and protection. Other states also withhold part of the LGs' FA funds for different purposes.

In Kaduna, the Ministry of Local Government Affairs withholds part of LGA allocation to finance joint programs. In 2003, the Report of the Auditor General of LGs mentions that deductions were made at source for some of these projects without taking into consideration the needs of each LGA; for instance, resources were deducted in urban LGAs for agricultural projects. In addition, in this state, the Ministry of Local Government provides very detailed guidelines for the preparation of the LG budgets. In the case of PHC, a call circular for the preparation of the 2008 budget was sent to LGs listing the "recommended/approved" areas for inclusion, as well as some recommended minimum expenditures in particular areas. Finally, the LG budgets need to be approved by the state and any expenditure done by the LGA outside those related to salaries and overheads needs clearance from the state.

During the last military government, a 5 percent of the LGs allocations were deducted to support traditional rulers. This requirement was suspended; however, most LGs continue the support to traditional rulers who are part of their payroll.

## Public Financial Management

Limitations to local government's autonomy and the little revenues they received in the past do not fully explain the LGs service delivery record. For instance, public expenditure management in LGs is weak: budgets are unrealistic, record keeping is poor, and irregularities in the use of funds are common.

The PEMFAR 2007 evaluated public financial management (PFM) practices in the federal and state governments, reporting weak PFM systems in the states. Between 2002 and 2004, on average three of the four states included in the PHC survey, Kaduna, Cross River, and Bauchi, had a 31 percent difference between their consolidated budget and their consolidated expenditure.

The situation is similar at LG level where budgets largely differ from actual expenditure. As seen in table 5.3, in Kaduna, between 2003 and 2005 the execution rate of the LGs budgets on average was between 73 percent and 93 percent. In contrast, in Cross River, budget execution in 2005 and 2006 was higher than actual budget.

**Table 5.3. Budget Execution Rate across LG in Kaduna and Cross River (in %)**

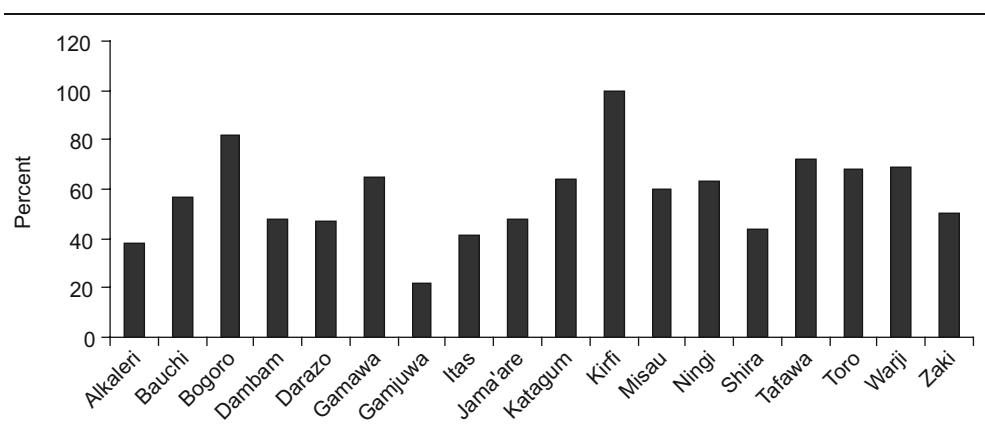
LG	2003	2004	2005	LG	2005	2006
Birnin Gwari		27		Abi	111	129
Chikun	66	112		Akamkpa	109	81
Giwa	75	109		Akpabuyo		
Igabi	79	67	97	Bakassi	98	
Ikara	76		84	Bekwara	120	104
Jaba	98	59	72	Biase	100	104
Jema'a	58	48		Boki	88	92
Kachia	109	65	100	Calabar Municipal	110	106
Kaduna North	188	62		Calabar South		100
Kaduna South	44	64	83	Etung	123	137
Kagarko			84	Ikom	122	123
Kajuru	85			Obanliku	92	125
Kaura		100	91	Obubra	91	100
Kauru	62	91	93	Obudu	134	118
Kubau	74		95	Odukpani	61	88
Kudan	140	116	92	Ogoja	107	136
Lere	102		92	Yakurr	91	89
Makarfi			136	Yala	90	116
Sanga			96	<b>Cross River</b>	103	109
Soba	83					
Zangon-Kataf	114	45	94			
Zaria			91			
Zabon-Gari		63	83			
<b>Kaduna</b>	91	73	93			

*Source:* Authors estimates based on data from Kaduna and Cross River Auditor General of Local Governments

In 2005, a scorecard assessment<sup>2</sup> of rural local governments in nine Nigerian states reported information on the budget execution rates of Bauchi's local governments. In the seven local governments for which information is available, on average, the execution rate was about 95 percent.

There is no complete information on why there are such large discrepancies between the LGs budgets and expenditures, but some of the causes are likely to be similar to those found at state level, such as low capacity to project future revenues (see PEMFAR, 2007). Indeed, data from the Auditor General of Local Governments in Kaduna shows large discrepancies between estimated and actual revenues in the state LGs. Similarly, the scorecard assessment of LGs in Bauchi showed an average ratio between actual and projected internally generated revenues of these LGs of about 57 percent (see figure 5.1).

**Figure 5.1. Average Ratio between Actual and Projected Internally Generated Revenues in Bauchi's Local Governments**



Source: Scorecard Assessment of Rural local governments in nine states of Nigeria-Volume II (Terfa Inc., 2005)

Most of the variation between budgets and actual expenditure is related to capital budgets, indicating very little attention to the financial management of projects. As seen in table 5.4, while in Kaduna LGs the execution rate of projects is in general very low, in Cross River LGs the actual expenditure is often many times higher than the budget.

Limited information also highlights general weaknesses in other aspects of public financial management. A study on state and local governance in Nigeria (World Bank, 2002), recorded poor financial management in 13 LGs from the six states included in the study.<sup>3</sup> In particular, the study described LGs budgets as just a list of needs, not an instrument to prioritize expenditures based on clear policies and procedures to identify clear goals. This study also indicated weak financial management capacity and also "willful" disregards for public financial management rules in some LGs.

**Table 5.4. Capital Budget Execution Rate across LG in Kaduna and Cross River (in %)**

LG	2003	2004	2005	LG	2005	2006
Birnin Gwari		25		Abi	209	269
Chikun	50	44		Akamkpa	101	76
Giwa	28	44	63	Akpabuyo		
Igabi	38	38	80	Bakassi	84	
Ikara	40		68	Bekwara	68	111
Jaba	15	58	40	Biase	88	202
Jema'a		6		Boki	56	138
Kachia		23	100	Calabar Municipal	111	146
Kaduna North	40	68		Calabar South		129
Kaduna South	6	47	49	Etung	122	127
Kagarko			50	Ikrom	126	154
Kajuru	12	64		Obanliku	115	209
Kaura		15	58	Obubra	71	104
Kauru	60		80	Obudu	162	398
Kubau	37		74	Odukpani	61	88
Kudan	614	44	82	Ogoja	124	215
Lere	35		80	Yakurr	98	81
Makarfi			80	Yala	108	131
Sanga		21	78	Cross River	107	161
Soba	84	56				
Zangon-Kataf	21	25	85			
Zaria		64	54			
Zabon-Gari		45	56			
Kaduna	77	40	69			

*Source:* Authors estimates based on data from Kaduna and Cross River Auditor General of Local Governments

Among the states that participated in the PHC study, the report of the Kaduna Auditor General of Local Governments can be indicative of weaknesses in public financial management in the LGs (see box 5.1). The situation in Lagos, as highlighted in the Lagos State Financial Accountability Assessment (World Bank, 2004), is similar. This assessment noted inadequate record keeping, poor supervision of revenue collection, unanswered audit queries, and long delays in audit reports.

Finally, the scorecard assessment of rural local governments in nine states (Terfa Inc., 2005) looked at financial integrity of LGs through an index that considered the following aspects: recent audit reports, compliance with procurement procedures, appropriateness of borrowing, payment of advances to political and career staff, and fulfillment of reporting requirements. Local governments in Bauchi state had on average the highest score on overall financial integrity among the nine participating states. Nevertheless, in a scale from 1–100, on average, Bauchi's LGs score was only 56.

**Box 5.1. Extract from Report of the Auditor-General for Local Governments on the Accounts of the 23 Local Government Councils of Kaduna State. For the Year Ended 31<sup>st</sup> December, 2004.**

“...It is evident that the local governments are yet to make any meaningful departure from the past as far as record keeping is concerned. Problems such as missing payment vouchers, unvouched expenditures..., investing in dead or non-performing companies, non-remittance of third-party deposits among others, still persist.”

*Note:* This report is the report the Auditor General presents to the Kaduna State House of Assembly.

### Local Government Civil Service

The size as well as the composition of local government civil services can also explain the weak performance of health services. In 2005, in Cross River’s LGAs on average about 53 percent of the total expenditure went to personnel remuneration. In Kaduna, on average, about 23 percent of the LGs expenditure went to personnel costs. However, this average hides large differences across Kaduna’s LGs; for instance, at least four LGs in the state, out of 23, spent more than 40 percent of their expenditure on personnel.

Although there is no data available on the percentage of the personnel remuneration out of total expenditure in other sub-national governments, information on national wage bills in countries in the region can be indicative of the problem. As seen in table 5.5 below, only Kenya has a larger wage bill than Cross River’s LGs.

**Table 5.5. Wage Bill in Different Sub-Saharan Africa Countries, 2005**

Country	Compensation of employees (% of expense)
Benin	43
Burkina Faso	41
Cote d'Ivoire	39
Kenya	60
Lesotho	37
Madagascar	41
Mali	33
Mauritius	39
Seychelles	37
South Africa	14
Uganda	13
Zambia	36

*Source:* World Bank Development Data Platform.

This large wage bill is partly due to an overstuffed civil service. As explained before, Cross River state deducts a significant part of the LGs allocations for different purposes. This could partly explain such large wage bill. However, local governments in the state also have large civil services. In total, in 2008 there were 39,762 people in the Cross River LGs payroll, about 1.4 percent of the state population. Not all of them are civil servants.<sup>4</sup> As seen in table 5.6, as percentage of the total population the LGs in Cross River are largely overstuffed. On average, countries in Sub-Saharan Africa have

civil services that represent about 1.5 percent of the population (1.7 percent in non-Francophone countries). This 1.5 percent includes civil servants working in all levels of government, including both education and health employees. If we only include pensionable civil servants and primary school teachers, the total Cross River LGs personnel represent about 1.1 percent of the state population.

**Table 5.6. Percentage of Civil Servants out of Total Population in Sub-Saharan African Countries**

	Sub-Saharan Africa average <sup>b</sup> 1996–2000 <sup>a</sup>	Non-Francophone Africa average <sup>b</sup> 1996–2000 <sup>a</sup>	Low income group average <sup>b</sup> 1996–2000 <sup>a</sup>	Middle income group average <sup>b</sup> 1996–2000 <sup>a</sup>
Civilian central government	0.30	0.38	0.46	0.59
Subnational government	0.30	0.38	0.46	0.59
Education employees	0.62	0.78	0.91	1.20
Health employees	0.29	0.20	0.62	0.70
General government total	..	2.67	2.27	4.26
General government excluding police and armed forces	1.50	1.73	2.45	3.09

*Source:* World Bank data base on public sector employment and wages.

Large numbers of people under their payroll is not unique to Cross River's LGs. The state and local governance study (World Bank, 2002) recorded large variation in LGs staffing varying from 400 to over 1000 people on staff, not including primary school teachers. This is similar to the variation of pensionable civil servants in Cross River who vary from 254 in Bakassi, to 1039 in Boki. In response to this large payroll, many states have an embargo on recruitment of new local government staff.

Despite the large number of personnel on their payroll, the LGs are also limited by personnel capacity constraints. For instance, a series of reports of the Kaduna Auditor General of LGs 1999–2004 can be indicative of the problem. These reports highlight the limited capacity of LGs treasurers who lack book keeping skills and capacity to produce final accounts. Similarly, the Lagos State Financial Accountability Assessment (World Bank, 2004) also reports insufficient number of professionally qualified Treasurers and insufficient supporting staff in Treasury and Internal audit unit departments with relevant qualifications. Finally, as seen in a previous chapter, PHC facilities are understaffed, particularly those in rural areas.

### Local Government Health Expenditure

The flow of resources to PHC facilities in the country is rather complex given the numerous agencies sharing responsibilities for the provision of services. The largest flow of resources is personnel remuneration which is financed by local governments. But as seen before, there are other flows of in-kind resources going to these facilities from different levels of government and donors, although mainly from local governments. The following paragraphs assess health expenditure at local government level. This expenditure is mainly expenditure on PHC, although not all of it is. For instance, LGs in Kaduna include as health, expenditure on refuse collection.

There is no consolidated account of LG expenditure. However, local government financial accountability is monitored by an Auditor General of Local Governments. The reports of the auditors general to the state assemblies present both budget and expenditure in all LGs. However, an estimate of actual expenditure across sectors is challenging. Recurrent and capital budget is presented separately, and while recurrent expenditure is presented in both administrative and economic classification, the capital budget is often presented in functional classification. Thus, while it is often possible to trace recurrent expenditure across administrative units (departments); it is not always possible to do the same with the capital budget. There are also large variations in budget presentation across states and within states, making comparisons difficult. Finally, the data presented in the Reports of the Auditors general is fairly aggregated making detailed analysis challenging.

This section is based on partial data on LG expenditure in Kaduna and Cross River, two of the states that participated in the PHC study. The data are not fully comparable as in Cross River the data on personnel are not disaggregated across administrative departments.

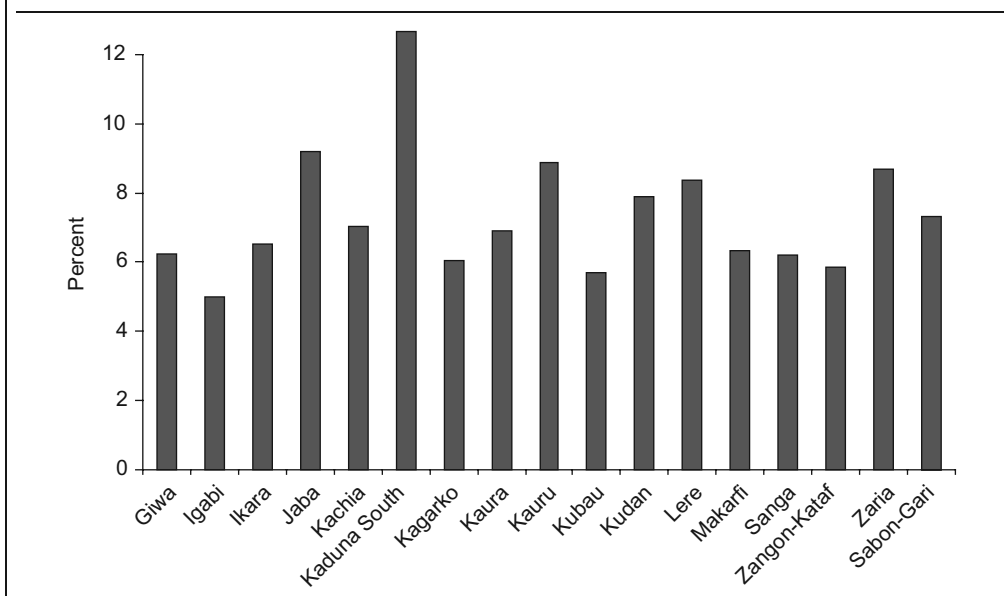
On average, local government expenditure on health is low. In 2005, Kaduna LGs spent on average about US\$2 per capita on health; about 7 percent of the entire LG expenditure went to the sector. Partial information from LG expenditure on health in Cross River also indicates low expenditure on health. For instance, average overhead expenditure on health in 2005 was only about US\$0.05 per capita, while capital expenditure was about US\$1 per capita.

Health expenditure varies largely across LGs. For instance, in Kaduna while health expenditure per capita in Zagon-Kataf LG was only about US\$1.34, in Jaba was about US\$3.6. In Cross River, there is also large variation across LG. For instance, overhead expenditures per capita vary from US\$0.01 to US\$0.13 and capital expenditures per capita vary from US\$4.6 to US\$0.5 (see table 5.9 and table 5.10).

These large variations are partly due to differences in shares of budget allocated to health. As shown in figure 5.2, in Kaduna LGs the share of total expenditure earmarked for health varies from as low as 3 percent to as high as 12 percent. In Cross River, there are also large variations in total expenditure allocated to health. For instance, overhead expenditure on health varies from 0.1 percent to about 6 percent of total overhead expenditure and capital expenditure on health varies from about 6 percent to about 12 percent of total capital expenditure.

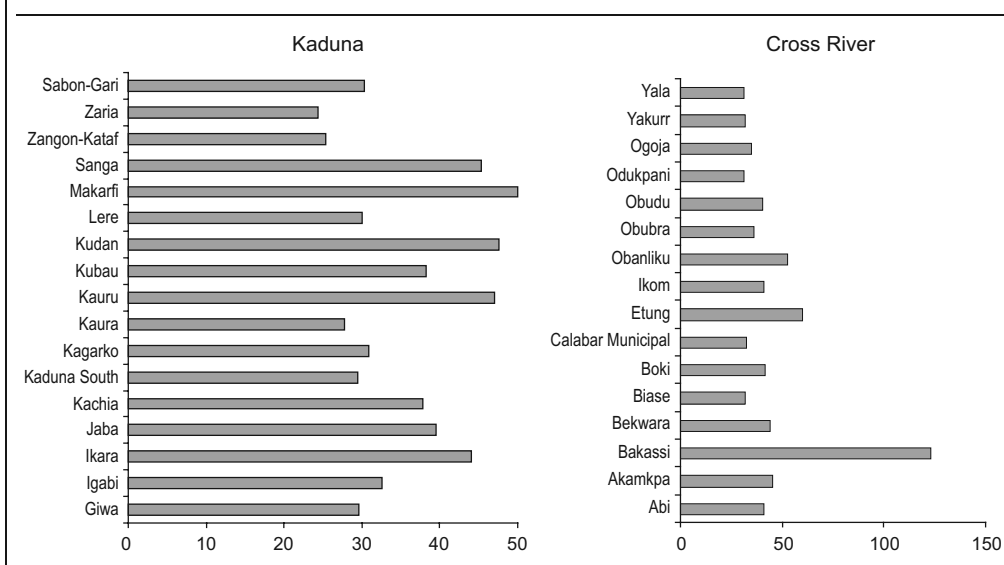
These differences in health expenditures are also due to large variations in total LG expenditure per capita. These variations mainly reflects the formula used to distribute the Federation Account revenues across states and LGAs as only 30 percent of the account is distributed according to population and, thus, in per capita terms states with less population receive more revenues. In 2005, on average, LGs in Kaduna spent about US\$36 per capita while LGs in Cross River spent on average US\$55. There are also large variations in total expenditures across LGs in each state as shown in figure 5.3.

**Figure 5.2. Share of Total LG Expenditure Allocated to Health in Kaduna LG, 2005**



Source: Authors estimates based on data from preliminary reports non-audited data from the office of the Auditor General of Local Government of Kaduna. Information was not available on a few LGs.

**Figure 5.3. Total per Capita Public Expenditure across Local Governments in Kaduna and Cross River, 2005**



Source: Authors estimates based on data from Auditor General of Local Government of Kaduna and Cross River. Information was not available on a few LGs.

There is also evidence that while total LG expenditure has increased significantly in the last years, health expenditure has increased only slightly. There are large variations in expenditure across LGs; however, health expenditure has actually decreased in many LGs and in those LGs where health expenditure has increased this increase has been lower than the growth in total expenditure (table 5.7). In only two LGs, Igabi in 2003–04 and Jaba in 2004–05, the growth rate of health expenditure was higher than that of total expenditure.

**Table 5.7. Real Growth Rate of Kaduna LG Expenditures in 2003–04 and 2004–05 (in %)**

Local government	Real growth rate 2003–04		Real growth rate 2004–05	
	Total	Health	Total	Health
Chikun	93	20		
Giwa	82	–47	32	33
Igabi	22	31	110	–54
Ikara	21	–35	89	23
Jaba	200	–65	–8	222
Jema'a	35	–2		
Kachia	14	1	174	11
Kaduna North	32	–33		
Kaduna South	60	–12	52	24
Kagarko	–4	1	179	–15
Kaura	14		180	–9
Kauru	18	2	114	1
Kudan	57	37	27	7
Zangon-Kataf	9	–19	218	34
Sabon-Gari			126	22
Kaduna average	32	3	87	4

*Source:* Authors estimates based on data from reports of Kaduna's Auditor General of LGs 2003–04, and preliminary reports from LGs for 2005 (not yet audited). CPI data source: WB Development Data Platform.

Data on expenditure in Cross River LGs show a similar pattern to that in Kaduna LGs. As seen in table 5.8, while the 2004–05 real expenditure in the LGs in Cross River grew on average 6 percent, both capital and overhead expenditure on health decreased. Similarly, on average overhead expenditure in the LGs decreased about 6 percent between 2005 and 2006 but the overhead expenditure on health decreased 45 percent.

Most local government expenditure on health is on personnel remuneration, very little is allocated to overhead expenditure or capital expenditure. On average, recurrent expenditure on health in Kaduna's LGs represents more than 80 percent of total expenditure. Most of this expenditure is on personnel remuneration, representing on average about 64 percent of total recurrent expenditure on health. On average, in 2005<sup>5</sup> LGs in Kaduna spent US\$0.76 per capita on non-salary recurrent costs. Very little was spent on pharmaceuticals, medical supplies, or the maintenance of facilities.

**Table 5.8. Real Growth Rate of Cross River's LG Expenditures in 2005–06 (in %)**

	Overhead expenditure	Capital expenditure	Total expenditure	Overhead expenditure on health	Capital expenditure on health
Abi	-7	81	17		-5
Akamkpa	3	11	-1	-66	-44
Bekwara	6	60	13	-71	
Biase	-14	157	19		
Boki	-15	74	12	-70	14
Calabar Municipal	31	50	13	-52	5
Etung	0	53	10	34	
Ikom	3	54	8	24	
Obanliku	-31	68	3	-78	
Obubra	-33	86	9	-22	-69
Obudu	-16	39	1	11	
Odukpani	14	33	7	-74	
Ogoja	-7	59	12	-21	
Yakurr	4	37	5	54	
Yala	-4	57	6	53	
Cross River	-6	52	6	-45	-19

Source: Authors estimates based on data from reports of Cross River's Auditor General of LGs 2005-2006. CPI data source: WB Development Data Platform.

In 2005, only two LGs in Kaduna (Ikara and Sanga), out of 17 for which data were available, had expenditure on the maintenance of health facilities. Similarly, only 11 LGs had expenditure on pharmaceutical products. Expenditure on drugs varied significantly across LGs from Naira 36,000 (US\$275) in Sabon Gari to about 3 million naira (US\$22,747) in Ikara. An important share of the total non-salary recurrent costs in these LGs went to travel and transport costs, to the maintenance of office equipment and furniture, and in some LGs to "entertainment and hospitality" expenses. Most LGs included in their health recurrent expenditure the cost of refuse collection. The rest of the recurrent expenditure went to the logistical support of vertical programs such as TB control, HIV control, roll back malaria, and immunization.

Information on health personnel expenditure in Cross River's LG was not available, but data on overhead expenditure show very little non-salary recurrent expenditure (see table 5.9). Capital expenditure in Cross River LGs was about US\$1 per capita.

### Local Government Accountability for Service Delivery

Accountability connotes having the obligation to answer questions regarding decisions and actions (Brinkerhoff, 2004). It will imply both reporting information and justification for actions and decisions. It will also imply the availability and application of sanctions for illegal or inappropriate actions uncovered. The level of accountability of local governments could then be measured by the level of information sharing on budget process, and on activities or outputs. Very little of this is done. Information on

local government budgets and expenditure is difficult to come by. LGs, however, are answerable to auditors general of LGs but this information is usually given with delays and the auditor general is often powerless to apply any sanctions for irregularities.

There is evidence of limited accountability of LGs in some states towards health service frontline providers. A study (Khemani, 2005) using data on LGs from Kogi state found very little accountability of the local governments reflected in the non-payment of salaries of health workers despite available resources. The same study included data from Lagos where this problem was not found. Non-payment of salaries of LGA staff have been reported in other states. For instance, in the last years Cross River state has been managing directly the LGs payrolls. The state took this decision after repeated complaints from LG civil servants for LG non-payment of salaries.

Local government accountability in relation to communities could be measured by their responsiveness to communities. The scorecard assessment of rural local governments (Terfa Inc., 2005), including all local governments in Bauchi, evaluated the responsiveness of local governments to the community by an index that included the following aspects: project implementation, project abandonment, overall councilors' responsiveness, councilor's meeting with community, consultation on budget issues, responsiveness to request assistance, performance of community outreach staff, and chairman's accessibility to members of the community. In general, the scorecard assessment found very poor responsiveness to communities among the participating local governments. In a ranking from 1–100, very few LGs in the nine states had more than 50 points in the ranking. Bauchi LGs, on average, had a score of 30 points.

### **Possible Ways Forward**

Improving the performance and accountability of local governments regarding service delivery requires reforms that go beyond the health sector. A comprehensive civil service reform that reduces the number of civil servants and changes their skill mix will be needed. There is also a need for capacity building concerning public financial management. These reforms will increase the LGs capacity to provide services but they will not necessarily increase their accountability towards clients or towards other levels of governments.

There is also a need to improve the accountability mechanisms at state level. For instance, auditors general monitor the financial accountability of local government. Despite limited resources, these auditors do a comprehensive work and present to the state assemblies detailed audit reports of local government finances. However, sanctions are often not imposed for uncovered irregularities.

Conditional matching grants from the federal or state governments to local governments can be used as instruments to improve basic health service delivery. Both the federal and state level governments have shown interest in improving basic service delivery in the country. They have used different instruments to do so. As seen in this chapter, the states regulate and control most of the activities of the LGs; they also deduct resources from the LGs allocation to ensure that some activities are carried out. Many of these instruments have not produced the intended benefits as the performance of services can testified. Matching grants conditional on performance can

offer local governments the incentives to improve services provided that they have flexibility and capacity to use these resources.

The federal government has used this instrument to improve service delivery. The Office of the Senior Special Assistant to the President for the Millennium Development Goals has started a conditional grant mechanism intended to transfer funds to the sub-national governments to improve basic service delivery and progress towards achieving the MDGs. The resources that fund this program come from debt relief. As discussed before, Cross River State has benefited from these conditional grants and has used these funds for a large PHC rehabilitation program in the state. The Health Bill that is currently in the National Assembly would create a similar conditional matching grant, the PHC Development Fund.

However, for these conditional grant programs to obtain the intended benefits there is a need for systematic collection, analysis, and reporting of information. This information is needed to verify compliance with goals and to assist future decisions on whether or not to continue providing grants to sub-national governments. The incentives provided by these grants will only improve performance if there is a real threat of funds withdrawal in case the performance is inadequate and this requires some standards or goals to be met and ways to measure whether these are met (Bird, 2000).

In Kaduna the state and local governments' joint programs have the potential to create the incentives needed to improve performance. These joint programs in practice are matching grants for capital projects. These joint projects, however, have often worked not as incentives to the local government to perform, but as an imposition. So far they have been used mainly for investment projects, which might create a perverse incentive for the local government to finance part of these investments but not to maintain them. Nevertheless, this system could provide benefits if used as incentives for local governments that want to improve service delivery, not just construction and rehabilitation of facilities but also for some recurrent cost needed to provide services.

Information on service delivery is not just important for creating accountability from local governments to other levels of government but more importantly to increase accountability of the LG in relation to clients. More information to the community on service delivery can increase accountability of local governments. Monitoring the performance of government policies, through report cards can work (see box 5.2). These citizen reports cards started in Bangalore, India but have been used in many different countries. In Sub-Saharan Africa, South Africa, Ethiopia, Rwanda, and Mozambique are experimenting with these citizen report cards.

The scorecard assessment of rural local governments in nine states was in essence a local government report card. However, both citizens and state and local government officials participated in the assessment. The objective of the assessment was to identify rural LGs for their inclusion as beneficiaries of LEEMP. However, publicizing broadly the results of the assessment and repeating it could also serve as a way to monitor LG performance.

### **Box 5.2. Citizen Report Cards: The Bangalore Experience**

Citizen Report Cards (CRCs) are assessments of a municipality's public services from the point of view of its citizens who as users can provide useful feedback on the adequacy of the services and the problems they face in their interactions with providers. The resulting pattern of ratings, based on user satisfaction, is then converted into a "report card" on the municipality's service.

These CRCs were developed in the city of Bangalore, India by the Public Affairs Center. The first report card was done in 1994 and only included a few municipal services such as water, electricity but they have since been extended to other cities and rural areas in India and have included health services. In the first report most public services received low ratings. Providers were rated and compared in terms of public satisfaction, corruption and responsiveness. The media publicity these results received and the public discussions that followed pressure public providers to improve services. When the second CRC was implemented in 1999 these improvements were reflected in better ratings and by 2003 the third CRC showed a large improvement of services. Public satisfaction has increased considerably and the incidence of corruption had declined perceptibly.

*Source:* Samuel, 2004.

A larger community participation in the local government budget planning process could also help improve service delivery. There is some experience in Nigeria in the education sector on these participative approaches (see box 5.3).

### **Box 5.3. Participative Approaches in the Management of Education: Literacy Enhancement Assistance Project (LEAP)**

The LEAP project worked in Lagos, Nasarawa, and Kano and supported 9 local governments. This project was financed by USAID and implemented by the Research Triangle Institute (RTI) and the Education Development Center (EDC). "An essential aspect of the project was to encourage decision-makers and administrators to listen and respond to the opinions of stakeholders, or beneficiaries of the primary education system. Representatives of parents, teachers, general civil society and politicians at the local government level were facilitated to identify the most important problems that, in their collective opinion, impede the learning of mathematics and English for their children. These groups then brought their opinions to a workshop, where collectively they identified the priority problems and concurrent solutions for their local government. In Kano, the common themes identified for all three local governments working with LEAP, were (i) too many unqualified teachers; (ii) inadequate and irrelevant instructional materials; and (iii) a lack of school furniture. Solutions included the provision of summer training workshops for teachers, the development of school or classroom libraries and the construction of school furniture by parents. In Lagos, common themes included (i) the poor state of school infrastructure; and (ii) the limited interest of parents in their children's schooling. Solutions included a concerted lobbying effort of state authorities and private philanthropists to support classroom renovation (resulting in significant grants from an oil company to Lagos Island schools) and a program to provide ideas to parents on to how to use daily interactions to teach English and mathematics concepts (using billboards). In all the local governments, the stakeholders collaborated closely with the local government council and the education authorities to address and improve the learning of their children."

*Source:* Destefano and Crouch, 2005.

## Notes

<sup>1</sup> According to the 1999 Constitution, the local government councils are in charge of: the establishment and maintenance of cemeteries and burial grounds, slaughter houses, markets, motor parks, and public conveniences; construction and maintenance of roads, streets, street lightings, drains, and parks; provision and maintenance of sewage and refuse collection; control and regulation of advertising, shops, restaurants, and so forth; and participation with the state government in the provision of basic health and education services.

<sup>2</sup> This assessment was done by the World Bank financed Local Empowerment Management Project (LEEMP). The objective of this scorecard exercise was to identify rural local governments in participating states where the “level of commitment to effective service delivery and responsiveness to rural communities justify their inclusion in the LEEMP project” (Terfa Inc., 2005). The participating states were: Adamawa, Bauchi, Bayelsa, Benue, Enugu, Imo, Katsina, Niger, and Oyo. This scorecard assessment was based on interviews with community representatives and with different state and local government officials, such as the Auditor General of LGs, the Chairman of the local government Service Commission, LGA Chairman, Councillors representing the communities visited, Director of Administration or Personnel, Treasurer or Director of Finance, Internal Auditor, and five heads of department.

<sup>3</sup> Anambra, Bauchi, Nasarawa, Ogun, Rivers, and Sokoto.

<sup>4</sup> Data from the Cross River Ministry of Local Government shows that as of April 2008 there were 20,540 primary school teachers; 11,717 pensionable civil servants; 3,196 non-pensionable staff; 3,573 traditional rulers; and 736 political office holders.

<sup>5</sup> This information comes from preliminary data from the Office of the Accountant General of LGs in Kaduna. These data have not been audited.

**Table 5.9. Cross River Local Governments Expenditure 2005**

	Abi	Akamkpa	Bakassi	Bekwara	Biase	Boki	Calabar Municipal	Etung	Ikom	Obanliku	Obubra	Obudu	Odukpani	Ogoja	Yakurr	Yala
Personnel cost	162,784,535	172,059,820	89,244,277	132,735,966	180,858,671	218,749,926	168,426,540	153,575,759	170,466,123	163,715,825	176,076,176	196,685,727	193,611,482	152,412,661	190,441,345	204,873,525
funding for primary education	159,134,496	178,009,212	50,581,751	121,643,839	194,897,624	262,977,178	192,945,751	121,398,682	268,788,141	201,809,563	236,209,154	235,346,671	164,568,225	236,829,987	216,903,368	238,828,146
pensions and gratuities	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	51,520,264	3,769,539
training fund	3,769,539	3,769,539	3,769,539	3,769,539	3,769,539	3,669,529	3,769,539	3,669,539	3,669,539	3,769,539	3,669,539	3,769,539	3,669,539	3,769,523	3,769,539	51,520,264
overhead cost	164,424,013	126,976,385	135,492,887	115,033,454	135,599,150	161,393,641	129,727,736	95,251,085	120,189,868	147,869,494	130,774,257	129,439,343	130,662,041	116,566,486	147,266,809	152,306,014
capital expenditure	218,386,872	350,377,771	181,372,136	174,563,915	127,558,222	292,330,719	205,089,468	189,197,147	237,084,270	174,362,046	197,626,650	216,522,669	221,610,404	208,957,120	193,240,268	191,243,099
Total	760,019,720	882,712,991	511,980,854	599,266,978	694,203,470	990,641,258	751,479,298	614,612,476	851,718,205	743,046,731	795,876,041	833,284,213	765,641,956	770,056,041	803,141,593	842,540,588
Health overhead expenditure		2,429,522		6,611,600		1,509,170	2,599,550	639,400	316,175	621,590	178,992	241,100	1,284,625	441,863	1,099,496	268,200
health capital expenditure	18,519,475	20,144,175	17,746,175			17,726,175	21,426,175				20,421,179					22,639,175
total health no personnel		22,573,697				19,235,345	24,025,725				20,600,171					22,907,375
Population	141905.96	148102.5	31737.3	103705.56	165799.34	182418.18	175804.16	78592.08	159135.34	108117.52	168995.12	156903.88	188595.12	168462.98	192521	206626.14
Remuneration as % of total expenditure	49.1%	37.4%	37.4%	51.0%	61.5%	53.8%	54.9%	53.1%	57.6%	56.1%	58.3%	58.0%	53.5%	57.2%	57.1%	53.1%
capital exp. as % of total health exp. as % of total overhead	28.7%	39.7%	35.4%	29.1%	18.4%	29.5%	27.3%	30.8%	27.8%	23.5%	24.8%	26.0%	28.9%	27.1%	24.1%	22.7%
health as % of capital	8.5%	5.7%	9.8%			6.1%	10.4%				10.3%					11.8%
total per capita in nominal naira	5,356	5,960	16,132	5,779	4,187	5,431	4,275	7,820	5,352	6,873	4,709	5,311	4,060	4,571	4,172	4,078
total health no-personnel per capita in nairas		152				105	137				122					111
health overhead per capita in Nairas		16		64		8	15	8	2	6	1	2	7	3	6	1
health capital per capita in Nairas	131	136	559			97	122				121					110
total per capita in current US\$	41	45	123	44	32	41	33	60	41	52	36	41	31	35	32	31
total health no-personnel per capita in current US\$		1.2				0.8	1.0				0.9					0.8
health overhead per capita in current US\$		0.13				0.06	0.11	0.06	0.02	0.04	0.01	0.01	0.05	0.02	0.04	0.01
health capital per capita in current US\$	1.00	1.04	4.3			0.7	0.9				0.9					0.8

Source: World Bank estimates based on Report of the Auditor General of Local Governments 2005.

**Table 5.10. Kaduna Local Government Expenditure 2005**

2005	Giwa	Igabi	Ikara	Jaba	Kachia	Kaduna South	Kagarko	Kaura	Kauru	Kubau	Kudan	Lere	Makarfi	Sanga	Zangon-Kataf	Zaria	Sabon-Gari
Total recurrent	824481923.1	1,261,056,554	806104679.5	705630132.7	929638993.2	127653557.3	785558420.6	676113090.4	786472445.8	1000705409	636902765.1	965719608.7	706523741.8	678616906.4	854965404.8	1065982289	887442782
Recurrent education and social development		267641502	201977771	386908189	260877160.9		30915145.48	237793735.4	247042779.3		140469271.3	308208385.2		27683975.41	304760518.1	302981458	
Recurrent Health	54868156.06	88,431,537	64030283.85	71882908.42	73267203.36	141098973.4	51786302.46	54721131.07	63944617.86	57392704.87	42553848.05	84667063.52	53322731	43971086.57	54597181.81	108485093.7	72,283,606
total capital	263046535.5	540438401	289957016.2	83588174.59	254161309	247322296.4	170988675.9	117545544.2	239885297.1	385693414.6	213199225	309716013.9	232170209	191172424.9	173765611.5	212485956.6	228001308
Capital education	30178673.5	76067964.72	41061908.47	13632000	36594014.14		20231659.3	20222727	8006770.6	65429245	30605828.4	56387863.05	14951584.15	20313977	15787390	32361150.25	11915000
Capital health	12866465	21768314.26	7649779.9	800000	9896849.58	52129689.55	5972625	181500	27365016.96	21705000	24500000	22174490	6232839.4	9900000	5542167.39	2797928.2	9422392
Total expenditure	1087528459	1801494955	1096061696	789218307.3	1183800302	1523857869	956547096.4	793658634.6	1026357743	1386398823	850101990.1	1275435623	938693950.8	869789331.3	1028731016	1278468246	1115444090
Total Health in Nairas	67734621.06	88,431,537	71680063.75	72682908.42	83164052.94	193228663	57758927.46	54902631.07	91309634.82	79097704.87	67053848.05	106841553.5	59555570.4	53871086.57	60139349.2	111283021.9	81705997.59
% of recurrent exp in total health expenditure	81%	62%	89%	99%	88%	73%	90%	100%	70%	73%	63%	79%	90%	82%	91%	97%	88%
% of total capital expenditure that is health	5%	4%	3%	1%	4%	21%	3%	0%	11%	6%	11%	7%	3%	5%	3%	1%	4%
Population	280698	421624	190047	152269	239389	394342	236124	218127	166608	276404	136212	324538	143334	146346	310043	400034	281134
Total exp. per capita	3874	4273	5767	5183	4945	3864	4051	3639	6160	5016	6241	3930	6549	5943	3318	3196	3968
Health exp. per capita in current Nairas	195	210	337	472	306	358	219	251	384	208	312	261	372	300	176	271	257
Total exp. per capita in current US\$	30	33	44	40	38	29	31	28	47	38	48	30	50	45	25	24	30
Health exp. per capita in current US\$	1.5	1.6	2.6	3.6	2.3	2.7	1.7	1.9	2.9	1.6	2.4	2.0	2.8	2.3	1.3	2.1	2.0
Health as % of total	6%	5%	7%	9%	7%	13%	6%	7%	9%	6%	8%	8%	6%	6%	6%	9%	7%
capital as % of total	24%	30%	26%	11%	21%	16%	18%	15%	23%	28%	25%	24%	25%	22%	17%	17%	20%
Total personnel cost	244290385.5	388694713.9	234830191.7	314861968.7	396997576.6	257321382.9	158382768	366528577.9	168445446.3	117526797.5	118699233	182160620.2	116586868	297540904.2	438143985.1	219497643.1	139755986.3
health personnel cost	33430730.68	53,157,485	37328752	47072276	49785019	90289696	36916105	40504616	50449019	35743467	14588017	65110141	34279661	29076328	40936495	73540076	34,897,426
health personnel as percentage of health recurrent cost	61%	60%	58%	65%	68%	64%	71%	74%	79%	62%	34%	77%	64%	66%	75%	68%	48%
Health non-salary recurrent	39%	40%	42%	35%	32%	36%	29%	26%	21%	38%	66%	23%	36%	34%	25%	32%	52%

Source: WB estimates based on data from preliminary reports non-audited data from the office of the Auditor General of Local Government of Kaduna. Information was not available on a few LGs.

# Policy Makers-Providers

Often services fail communities and particularly poor communities if resources do not reach frontline providers; if these providers do not have the incentives to serve the community, especially the poor; and if they are not responsive to communities' preferences and demands (World Bank, 2003). However, ensuring providers' compliance to offer quality services is not simple; it requires offering the right incentives and a close monitoring of their work.

To better understand the relationship between policy makers and primary health providers in Nigeria, this chapter first describes the characteristics of frontline providers in the four states sampled. This will be followed by an evaluation of the incentives these providers face to perform their work. This section is based on the survey on health facility personnel. In all facilities sampled, 25 percent of all types of personnel present in the facility at the time of the survey were interviewed (table 6.1). A total of 881 PHC workers were sampled<sup>1</sup>.

**Table 6.1. Health Care Personnel Sampled across States**

	Bauchi	Cross River	Kaduna	Lagos	Total
Medical officer	12	8	0	24	44
Community health officer	11	25	11	9	56
Public health nurse	14	40	12	37	103
Nurse	4	25	2	5	36
Nurse/midwife	15	14	16	32	77
CHEW	38	64	21	6	129
JCHEW	33	39	28	4	104
Environmental health officer	8	1	1	4	14
Lab technician	9	8	3	13	33
Pharmacy tech	6	5	2	8	21
Medical records officer	7	9	0	8	24
Dental assistant	1	1	1	0	3
Community health worker	8	7	6	0	21
Other (includes support staff such as attendants, cleaners and security guards)	105	43	9	42	199
<b>Total</b>	<b>271</b>	<b>289</b>	<b>112</b>	<b>192</b>	<b>864</b>

*Source:* Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007).

The distribution of the sample by occupation reveals the majority of medical officers interviewed were from Lagos as was the case for nurses / midwives. Lagos also

had a large sample of Public Health Nurses as did Cross River. The CHEW and JCHEW interviews were concentrated in Bauchi, Cross River, and Kaduna. The “other” occupation designation includes attendants, cleaners and security guards with a large number of the interviews of this group in Bauchi.

### Characteristics of Health Personnel

The majority of the health personnel interviewed across states were women with the sole exception of Bauchi where about 68 percent of the sampled personnel were men. While the majority of doctors in all states were men, the majority of nurses were female. In the case of community health workers, in the two northern states the majority of CHEWs and CHOs were men while the JCHEWs female.

The gender of the frontline providers often affects the demand of services. Services can also fail communities if they are not demanded. Lack of demand could be associated with the services not complying with the preferences of the community where they are located. The Nigeria 2003 DHS collected information among adult women on their perceived barriers to access health care. The main barrier to access services reported by women living in the North West region, where Kaduna is located, was the concern of non-availability of a female provider. This was also an important concern among women living in the North East region, where Bauchi is located (table 6.2).

**Table 6.2. Health Care Personnel Sampled by Gender across States**

	Bauchi		Cross River		Kaduna		Lagos	
	Male	Female	Male	Female	Male	Female	Male	Female
Medical officer	91.7	8.3	75.0	25.0			75.0	25.0
CHO	54.6	45.5	40.0	60.0	54.6	45.5	22.2	77.8
Nurse/midwives	15.2	84.9	8.9	91.1	16.7	83.3	2.7	97.3
other technical staff	83.3	16.7	45.8	54.2	71.4	28.6	36.4	63.6
Community-based health worker	100.0	0.0	57.1	42.9	16.7	83.3		
CHEW	55.3	44.7	31.3	68.8	71.4	28.6	0.0	100.0
JCHEW	72.7	27.3	20.5	79.5	39.3	60.7	0.0	100.0
Other	80.0	20.0	58.1	41.9	66.7	33.3	26.2	73.8
Total	67.94	32.06	31.6	68.4	44.14	55.86	22.34	77.66

Source: Nigeria 2003 DHS.

Note: This table collapses some of the categories of table 6.1. For instance, other technical staff includes environmental health officer, laboratory technician, pharmacy technician, medical records officer, and dental assistant.

On average a PHC worker is 37 years of age and has about nine years of experience and five years working in the same health facility. Half of them are from the same area where they work, and at least three in every four live with their families. There are few marked differences across states. First, PHC workers in Bauchi and Cross River are more likely to come from the same area where they work. Second, PHC workers in Kaduna and Lagos, on average, have less experience than those in Bauchi and Cross River.

There are however differences between public and private employees. Public PHC employees are more likely to be older and have about five years of experience more than private sector employees (table 6.3).

**Table 6.3. Characteristics of PHC Personnel across States and across Type of Facility Ownership**

	Bauchi	Cross River	Kaduna	Lagos	Public	Private
Age	37.9	36.0	36.0	36.4	38.4	32.6
Years of experience	9.1	11.1	6.5	7.2	11.2	4.5
Years working in the PHC	8.6	9.5	8.4	8.8	10.7	4.5
Years working in facility	5.9	4.5	4.0	4.9	5.1	4.4
Indigene to the community	62%	57%	40%	32%	60%	32%
Lives with wives and children	72%	70%	75%	69%	78%	55%

*Source:* Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007).

More qualified PHC workers are, on average, younger and much less experienced than less qualified workers. For instance, doctors have on average only about 5 years of experience, while CHEWs have almost 12 years. Medical officers are also less likely to come from the community (table 6.4).

**Table 6.4. Characteristics of PHC Personnel across Type of Personnel**

	Medical Officer	CHO	Nurse/midwife	Technical staff	CHEW	JCHEW
Age	34.9	40.5	34.8	35.2	37.3	31.7
Years of experience	4.7	14.0	7.6	6.1	11.6	7.0
Years working in the PHC	4.8	13.8	6.6	7.2	11.8	7.2
Years working in facility	4.4	4.1	4.8	4.2	4.3	3.3
Indigene to the community	32%	40%	42%	43%	45%	54%
Lives with wives and children	55%	84%	64%	60%	77%	63%

*Source:* Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007).

### Education Level

Most health workers have an Ordinary National Diploma or a Higher National Diploma. These certificates are given in Schools or Colleges of Health Technology where most PHC personnel such as CHOs, CHEWs, JCHEWs, are trained. Community Health Officers receive four years of training; although in the past CHEWs with some years of experience and an extra year of training could also become CHOs. CHEWs receive two years of training and JCHEWs one year.

Not surprisingly, most personnel with OND/HDN diploma are found in Cross River and Bauchi where most CHEWs and JCHEWs were interviewed. Most interviews with university graduates were conducted in Lagos, likely due to the concentration of medical officers in this state (table 6.5).

**Table 6.5. Highest Level of Education Completed by PHC Staff Interviewed (State Comparison)**

	Bauchi	Cross River	Kaduna	Lagos
Primary school	41	22	9	16
Secondary school	44	59	17	39
OND/HND	85	150	53	35
University	10	23	1	30
Post graduate	7	18	3	12
Other	75	24	28	59

*Source:* Health Personnel Survey (EPOS, CISH, CHESTRAD, 2007).

### Incentives to Providers

Bennet and Franco (1999) offer a conceptual framework to understand workers motivation. According to these authors, health workers motivation is a complex internal process that is determined by numerous individual, organizational, and socio-cultural or environmental factors explained below.

Workers individual needs, self-concept, and their expectations for consequences affect their motivation for performance. Some factors that can influence workers to exert efforts in their performance might be more important than others.<sup>2</sup> There are factors that can affect workers dissatisfaction by their presence or absence such is the case of salary, work conditions, job security, and interpersonal relations. Other factors such as achievement, the work itself, recognition, responsibility, advancement and growth can determine the level of motivation and satisfaction. However, without the first set of factors; known as “hygiene factors”, it is very difficult to provide positive motivation to perform.

The organization and structure of the health system also affect workers motivation by affecting the availability of inputs workers have to do their work (for example, drugs, equipment, and supplies); by affecting their autonomy in performing their tasks; and by providing the feedback and training needed to update and maintain the skills needed to perform.

Finally, the environment in which the health workers provide services also affect their motivation. For instance, the integration of health personnel in the social environment where they work can affect their motivation to provide quality services to the community.

Motivation is an internal process and thus not observable; however, some of the determinants of this motivation, and particularly some of the incentives the workers faced such as “hygiene factors” and some organizational and environmental determinants of their motivation can be observed. The next paragraphs give an overview to some of the incentives faced by PHC workers in Nigeria.

#### *Salary and Fringe Benefits*

There are large differences in the PHC personnel salaries paid by the public and private sector. Nurses and midwives in the public sector are better paid than their counterparts in the private sector. In contrast, medical officers are better paid in the private sector. These results are partly driven by large differences in years of

experience of nurses in public and private sector. On average, nurses in the public sector have about 10 years of experience; in contrast, nurses in the private sector have on average about 5 years. The sample of CHO, CHEWS, and other PHC personnel working in the private sector is too small to make any final conclusion. However, as in the case of nurses, on average the years of experience of these personnel in the public sector are higher than in the private sector. In the case of medical officers, the difference in experience is small (table 6.6).

**Table 6.6. Average Salary of PHC Personnel across Type of Facility Ownership**

	Private		Government		Total	
	Obs	Mean	Obs	Mean	Obs	Mean
Medical officer	22	78,773	12	38,342	35	64,674
Community health officer	8	10,500	45	29,566	53	26,688
Nurse/midwives	109	13,974	92	32,765	202	22,632
other technical staff	47	14,862	41	24,369	92	20,322
Community-based health worker	5	14,760	15	11,403	20	12,243
CHEW	7	8,500	109	20,810	117	20,203
JCHEW	21	8,724	75	15,527	96	14,039
Other	35	9,165	152	12,331	193	12,829
<b>Total</b>	<b>256</b>	<b>18,433</b>	<b>552</b>	<b>20,978</b>	<b>808</b>	<b>20,485</b>

Source: Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007). Salaries in nairas.

When compared with other countries in the region, these salaries in relation to GDP per capita are not high. The salary of nurses in the public PHC facilities, on average, is about 4 times GDP per capita, the salary of CHEWS about 2.4 times GDP per capita. In the case of nurses, these salaries are similar to the lower bound salaries for diploma nurses in other countries in the region (see table 6.7). CHEWS are a type of

**Table 6.7. Salary of Doctors and Nurses in Relation to GDP per Capita in Different Sub-Saharan African Countries (in %)**

Country	General practitioner	Diploma nurse
Burkina Faso	7.3–23.5	4.2–13.5
Burundi	11	4.2–9.6
Cameroon	5	2
Chad	10.3–18.8	5–10.6
Congo, Dem. Rep. of	1.8–2.40	
Ethiopia	18.3–30	11.7–27
Kenya	17	6.9
Mauritania	5.67–9.45	3.2–5.7
Niger	10.6–20.8	5.3–12.0
Zambia	23	54

Source: Most countries data are from WB Human Development, Africa Region, and Country Status Reports. For Zambia and Kenya: WDI, Country case study on health workforce financing and employment in Kenya (forthcoming) and Zambia report on human resources for health (forthcoming).

PHC personnel that are Nigeria specific. As mentioned before, they are high school graduates with a-two year training in schools of health technology. In other words, CHEWs have in some instances the same number of years of training of nurses in other countries in the area. Nevertheless, in GDP per capita terms their salaries are much lower than that of diploma nurses in other countries in the area.

In the past there were complaints of non-payment of salaries of PHC personnel. As explained before, in Cross River state after complaints for non-payment of salaries by the local governments, the state now manages the payroll. In other Nigerian states similar problems have been reported (Khemani, 2005).

At the moment, non-payment of salaries does not seem to be a problem in the four states sampled, although there are delays in the payment. Indeed, most PHC employees have been paid for every month in the last 12 months (see table 6.8). However, there are delays in the payment of salaries especially in Cross River state where only 30 percent of the personnel sampled receives the salary at the end of the month. Not surprisingly, 37 percent of the health personnel sampled in Cross River indicated that getting paid constituted an obstacle to do their job.

With the exception of Lagos, where the majority of the health care personnel sampled are employed by the private sector, less than a third of the personnel receives fringe benefits such as health care and housing from their employers. In addition, some health care personnel, particularly in Cross River and Kaduna receive housing benefits from the community.

**Table 6.8. Salaries and Fringe Benefits (State Comparison) (in %)**

	Bauchi	Cross River	Kaduna	Lagos
<i>Salary</i>				
Paid every month for 12 months	94	83	90	83
Received by end of month	70	30	59	53
<i>Employer benefits</i>				
Healthcare	25	23	25	84
Medicine	22	18	14	82
Housing	8	27	33	26
Food items	3	13	8	11
<i>Community benefits</i>				
Housing	9	14	13	6

*Source:* Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007).

As seen in table 6.9, the salary differences between types of LGAs are small. Salaries in urban areas are larger than those in rural and semi-urban areas, while salaries in semi-urban areas are the lowest. However, these differences mainly reflect differences in the characteristics of the personnel employed in urban and rural areas.<sup>3</sup>

**Table 6.9. Average Salary of Public PHC Personnel across Type of LGA**

	Rural Mean	Semi-urban Mean	Urban Mean
CHO	26,708	23,269	38,185
Nurse/midwife	33,771	27,500	34,128
CHEW	21,905	19,267	21,645
JCHEW	17,122	14,095	15,288

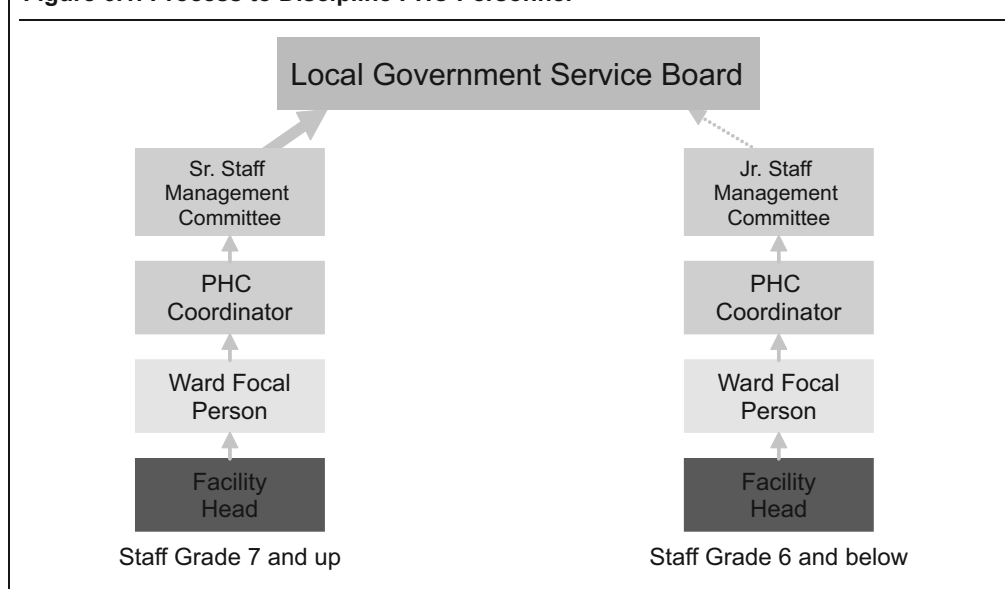
Source: Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007). Salaries in nairas.

These small differences in the salaries of personnel across type of LGA show very little financial incentives for personnel to live in rural areas. As seen in a previous chapter this is reflected in the distribution of personnel across LGA, as facilities in urban LGAs have on average more workers than facilities in rural LGAs.

Some states are aware of this issue and are providing or increasing a “rural allowance” or “rural posting” for their health personnel. For instance, the LGs in Kaduna state offer employees a rural allowance that represents about 30 percent of their basic salary, although only about 6 percent of their total salary.

### Mechanisms to Reward and Discipline PHC Personnel

The process to discipline staff is very complex rendering almost impossible measures such as firing staff. Figure 6.1 shows the process needed for disciplining PHC staff in Kaduna state. The facility head can initiate the process by sending a request for revision to the Ward Focal person, who then sends it to the PHC Department in the LG. For staff grade level 6 and below, the complaint is then sent to the Jr. Staff Management Committee in the LGs who then takes the final decision, although the

**Figure 6.1. Process to Discipline PHC Personnel**

minutes of the meeting need to be forwarded to the LGSB. For Senior Staff, the final decision is taken by the Local Government Service Board after a request is sent from the Sr. Management Committee in the LG. A similar procedure is followed in other states.

Given the complexity and the difficulties generated by this process to discipline personnel, many states are trying to change this procedure. In Kaduna, the draft bill creating the PHC Agency will take over the responsibilities of the LGSB. In Cross River, the draft regulation will give some of the LGSC responsibilities to the SMOH.

Regarding staff motivation, the main criterion for the promotion of staff is simply the years of experience. Merit, performance, or obtaining additional qualifications are reported as the second main criteria. There is not much difference across states or even across private and public employees, with the sole difference that a lower percentage of private employees reported the number of years of service as the main criterion for promotion (table 6.10).

**Table 6.10. Criteria for Promotion of Staff (in %)**

	Bauchi	Cross River	Kaduna	Lagos	Public	Private	Total
Number of years of service	46.7	52.7	44.4	51.8	53.6	40.8	49.6
Recommendation from management	11.8	7.8	14.8	7.2	8.8	12.5	9.8
Merit/performance/additional qualifications	30.6	34.0	36.1	34.3	31.7	36.3	33.3
Value of my network	2.0	3.1	4.6	5.4	1.9	7.1	3.4
Combination of above	9.02	2.38	—	1.2	4.03	3.33	3.89

*Source:* Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007).

### Other Negative Incentives Faced by PHC Personnel

A large percentage of PHC staff reports obstacles in receiving supplies and equipment as well as training for their jobs. Almost 60 percent of health care personnel in Bauchi and Cross River reported obstacles in obtaining supplies and equipment and more than a third of the personnel in Kaduna and Lagos reported the same obstacles. More than half of the personnel in Bauchi, Cross River, and Kaduna also reported having obstacles in receiving training. In Lagos, only 20 percent of the personnel did. Transportation to the facility was also reported as an important obstacle in all states (table 6.11).

**Table 6.11. Negative incentives Faced by PHC Personnel across States (in %)**

	Bauchi	Cross River	Kaduna	Lagos
Getting paid	23	37	19	24
Receiving supplies & equipment	56	59	46	31
Have enough work space	27	35	43	17
Receive training	53	54	59	23
Adequate supervision	35	37	38	15
Transportation	41	43	39	29
Time scheduling	37	40	23	20
Physical security	32	40	24	13

*Source:* Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007).

Health staff in rural areas reported considerable more obstacles to provide services than staff in urban or semi-urban areas. Only a very small percentage of health personnel in rural areas reported having adequate equipment to provide services, adequate toilets and water supply. In addition, the percentage of personnel reporting obstacles in providing services is much larger in rural areas than in both urban and semi-urban areas where the differences are small. This is especially the case when reporting obstacles to receive supplies and equipment, supervision, enough space to work, and transportation (table 6.12).

**Table 6.12. Obstacles in Doing Job across Rural and Urban Areas (in %)**

	Rural	Urban	Semi-Urban
% with Adequate equipment	11	43	31
<b>Assessment:</b>			
Toilet-good	12	51	33
Water supply - good	19	38	36
<b>Obstacles in doing your job:</b>			
Getting paid	33	24	29
Receiving supplies & equipment	73	43	44
Have enough work space	43	24	29
Receive training	57	45	45
Adequate supervision	46	26	30
Transportation	53	33	38
Time scheduling	40	27	37
Physical security	37	23	35

Source: Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007).

Government PHC employees are more likely to report facing obstacles when doing their work than private sector employees (table 6.13). There is a 40 percentage point difference between the percentage of public and private employees reporting obstacles in receiving supplies and equipment. There are also large differences between public and private employees reporting obstacles with transportation, time scheduling and physical security.

**Table 6.13. Obstacles in Doing Job across Type of Facility Ownership (in %)**

	Private (n=271)	Government (n=585)
% Adequate equipment	64	17
<b>Amenities:</b>		
Toilet-good	66	24
Water supply - good	75	21
<b>Obstacles in doing your job:</b>		
Getting paid	19	31
Receiving supplies & equipment	24	64
Have enough work space	20	33
Receive training	34	54
Adequate supervision	18	38
Transportation	24	46
Time scheduling	16	40
Physical security	14	37

Source: Health facility personnel survey (EPOS, CISH, CHESTRAD, 2007).

Finally, as mentioned before, the environment in which health workers provide services can also affect their performance. For instance, the degree of integration of the worker in the community where he serves can also affect their motivation. The desire to be appreciated and respected by their clients can be a powerful factor affecting the effort of the provider (Bennet and Franco, 1999). Workers coming from the same community or highly integrated into the community in which they serve are thus more likely to be motivated to offer quality services. As seen in table 6.3, workers in Bauchi and Cross River are more likely to be indigene to their community than workers in Kaduna. This could partly explain why households in Bauchi and Cross Rivers are also more likely to be satisfied with the attitude of personnel than households in Kaduna (see table 3.19).

### Health Personnel Coping Mechanisms

In response to inadequate salaries and poor working conditions, many health care workers respond by developing different coping strategies; some, albeit not all, of these strategies might result in conflicts of interest or in taking time from their work in the PHC facilities (Van Lergerghe et al., 2002). The survey on PHC personnel collected information on these coping strategies. The results are detailed in the following paragraphs.

The majority of the staff works fulltime in the health facility; however, a large percentage of these employees supplement their salaries with other economic activities (table 6.14). In the two northern states, more than two thirds of the staff supplements their salaries, while in the two southern states, only about a third or less of the staff do.

**Table 6.14. Percentage of Personnel Who Are Fulltime Employees and Supplement Their Salary**

State	Fulltime employee	Supplements salary
Bauchi	93	67
Cross River	89	34
Kaduna	91	68
Lagos	98	25

*Source:* Health personnel survey (EPOS, CISH, CHESTRAD, 2007).

A large number of fulltime workers who supplement their salaries with other activities work in a private facility or provides health care services at their house or in the house of patients (table 6.15). Although the most common activity to supplement their salaries is agricultural work in Bauchi, Cross River, and Kaduna and trade in Lagos; about 20 percent of staff supplements their salaries offering health services outside the facility in Bauchi and Cross River. In Kaduna, more than 40 percent of health staff offers services outside the facility and almost 30 percent of the staff that supplements its salary in Lagos does it by providing health care services outside.

**Table 6.15. Activities to Supplement Salaries of Health Staff across States (in %)**

	Bauchi	Cross River	Kaduna	Lagos	Public	Private
Agricultural work	74	80	85	7	80	32
Trade	14	37	34	52	25	34
Private facility	11	11	3	24	5	33
Provides health care at home	8	10	41	4	9	20
Sells medicines	7	14	13	7	10	7

*Source:* Health personnel survey (EPOS, CISH, CHESTRAD, 2007).

Personnel working in public facilities were more likely to supplement their salaries (52 percent) than those working in private facilities (35 percent). They were also more likely to supplement their salaries with agricultural work and trade.

### Possible Ways Forward

The Nigerian government has ensured the staffing of PHC facilities by creating special types of PHC personnel. Often these workers come from the same area where they work, ensuring their integration in the community they serve. Nigeria does not have the acute lack of health personnel that is common in other countries in the region.

However, there is room for improvements. Health care personnel are very unequally distributed across rural and urban areas and many basic factors determining health personnel motivation are lacking. Their salaries are delayed; they often do not have basic drugs and equipment to offer services; do not receive adequate training; and are poorly supervised.

In addition, providers' accountability in relation to policy makers and clients is weak. Measuring providers' accountability to local governments and patients is difficult. Lewis (2006) includes as a key measure of provider's accountability the "authority to reward performance and discipline, transfer, and terminate employees who engage in abuses". In the four states surveyed, the management of PHC personnel is cumbersome and fragmented given the number of agencies involved. Similarly, the lines of responsibilities regarding personnel supervision and management are not always clear. This makes any measure to discipline or motivate health personnel difficult to implement. As a result, frontline providers face little consequence for non-performance. Finally, their salaries are fixed and not linked to the provision of services; thus, they have little incentives to respond to the communities' demands.

It is difficult to motivate personnel if basic factors such as in-time payment of salaries are not present. Thus, to ensure providers compliance one of the first things needed would be to ensure that they are paid in time, and that they have a minimum set of equipment, drugs, and consumables needed to provide services.

Beyond these basic or "hygiene" factors, policy makers have other options to ensure provider's compliance to offer quality services. Many of these options often escape the health sector. For instance, there is an urgent need for a civil service reform that allows a more flexible and responsive mechanism to motivate and discipline health providers. Human resource management for health at the moment is fragmented, the LG and the LGSC or LGSB have the main responsibility, but other agencies also intervene. This fragmentation also creates challenges for worker

motivation. For instance, staff development and supervision are done by different government agencies, but despite this, too little is done.

Inside the health sector there are also options to improve health workers motivation and ensure compliance. But these options are not simple to implement, especially in the case of clinical services. These services are difficult to monitor as they are discretionary and characterized by large information asymmetries between policy makers, providers, and clients (World Bank, 2003).

However, not all services provided by PHC facilities are difficult to monitor. Preventive services offered to a target population such as immunization, micronutrient supplementation, and antenatal care, have been standardized and can be monitored. Policy makers could then monitor these services and offer public resources on the basis of increasing the coverage of these services.

The conditional transfers that the Office of the Senior Special Assistant to the President for the MDGs is now providing and the future PHC Development Fund could be made conditional to increasing the coverage of these basic services. At the moment, the transfers from the MDG office are mainly transfers for capital projects. Similarly, the PHC Fund seems to be mainly focused on the joint financing of capital projects. These projects are needed given the large need for rehabilitation and equipment of facilities. But these resources could also be used for recurrent costs needed to improve the coverage of basic preventive services that remain low. In other words, the amounts of the transfers as well as their continuity could be conditional on performance, measured by the increase in outputs that can be monitored such as immunization rates, antenatal care coverage, and so forth.<sup>4</sup>

However, for this performance based financing to be effective, providers need more autonomy in the use of resources. At the moment, PHC facilities only receive resources in-kind from the different levels of government (for example, drugs and supplies). They collect some resources from fees but they cannot use these resources as they have to return them to the local governments. With so little autonomy in the use of resources, it is hard to make these public providers accountable to improve service provision. By allowing facilities to retain the resources they obtain from the provision of services and by reducing the in-kind financing of the facilities they can be more responsive. For instance, if performance based transfers are used, facilities could receive funds also based on performance in achieving a certain level of coverage. The community could offer oversight in the use of resources and can also help in monitoring results.

Ensuring the provision of quality clinical care is more difficult. Empowering clients by strengthening their power in relation to providers could improve providers' responsiveness. Increasing information and community awareness on the services facilities provide and the resources they have to provide them and on the credentials and standard of services of providers could also help.

Contracting-out services to the private sector is also an option to explore. Contracts are difficult to monitor and enforce, in particular contracts for clinical services. However, it is possible to start by contracting out services that are easily to monitor and are highly cost-effective such as social marketing of consumables (insecticide treated nets, ORS sachets, condoms) and population based services such as vaccinations, micronutrient supplementation, and so forth. Making these contracts

based on performance, for instance based on achieving a pre-specified coverage level would certainly align providers incentives with the achievement of these targets (see Loevinsohn, 2008). At the moment, some services in the country are contracted-out to NGOs, as is the case of HIV/AIDS preventive services. As experience builds with the design and monitoring of contracts, other services, including curative clinical services, could also be contracted.

## Notes

<sup>1</sup> General note: The results of the health surveys presented in this chapter were taken from the Final Report for this survey prepared by EPOS Health Consultants, Canadian Society for International Health (CSIH), and Center for Health Sciences Training, Research and Development (CHESTRAD).

<sup>2</sup> Hertzberg (1959) as quoted in Bennet S. and Franco (1999).

<sup>3</sup> A regression on the determinants of salaries of nurses and CHOs showed that age, experience, ownership of facilities, and state were the main determinants of salaries, while type of LGA did not have a significant effect.

<sup>4</sup> For a review of performance based incentives potential see Eichler, R., Levine R. and the Performance Based Incentives Working Group. 2009. *Performance-Based Incentives for Global Health: Potential and Pitfalls*. Center for Global Development. Washington, DC.

# Clients-Providers

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To improve service delivery community members have two different routes; a “long route” by exercising pressure to their elected officials for them to ensure that providers offer quality services, and a “short route” by increasing their power over the provider. The previous chapters described some of the shortcomings clients face to improve services through the “long route” of accountability (World Bank, 2004).

As discussed previously, some of the reforms needed to improve the “long route” of accountability go beyond the health sector. For instance, there is an urgent need for civil service reform at local government level; a reform that will decrease the size of civil servants under the LGs payroll, change the skill mix of the personnel, and change the incentive structure faced by health providers. There is also a need to build capacity in public financial management at the local government levels. These reforms will take time and are difficult to implement. Therefore, to make significant improvements in PHC in the country, it is essential to improve the clients’ “power” in the delivery of services.

Increasing client’s power can result in improvements in service delivery but is not a panacea, as there are important market failures that affect health services and in particular clinical services. There are information asymmetries between patients and health personnel, as the latter know more about the patients’ diagnosis and treatment. This reduces the effect of the short route of accountability.

## **Increasing Clients’ Power**

One mechanism to increase clients’ power is through their direct involvement in co-producing and monitoring health services (World Bank, 2003). This chapter will look precisely at these existing mechanisms that community members have to exercise power in relation to providers.

The Nigerian government has long recognized the importance of community participation in the delivery of basic health care services and has thus tried to involve the communities in the development of PHC along the lines of the Bamako Initiative. Indeed, the guidelines for the development of the PHC system (NPHCDA, 2004) establish the development of the following health committees to support activities at village and ward level: Villages/Community Development Committees, Ward Development Committees, and LG Development Committees. All these committees are involved in many needed health activities, although not necessarily in the management of facilities.

According to the PHC guidelines, these are some of the roles and responsibilities of the Village/Community Development Committees regarding health facilities

(mainly health posts and dispensaries): (i) determine exemption of drug payment and deferment; (ii) determine the pricing of drugs; (iii) supervise and monitor the quantity of drug supply; (iv) supervise all account books; and so forth. Among the roles and responsibilities of the Ward Development Committees the following affect the management of facilities: (i) take active role in the supervision and monitoring of Ward Drug Revolving Funds/ Bamako Initiative; (ii) supervise activities of Village Health Workers and CHEWs; (iii) monitor activities at both the health facilities and village levels; (iv) oversee the functioning of health facilities in the Wards; (v) monitor equipment and inventory of monthly intervals; and (vi) ensure the proper functioning of the health facilities using a maintenance plan.

Some of these health committees have existed for many years; however, many are inactive. To assess the community involvement in the management of health facilities and in the monitoring of frontline providers the household survey collected information on the existence of these community management/development committees and their role in the functioning of PHC facilities.

### Survey Results<sup>1</sup>

Half of all PHC facilities in the country have or are linked to a community health development/management committee (table 7.1). These committees are present in two thirds of public facilities and in less than a third of privately managed ones. Most facilities in Kaduna and Cross River have management/development committees, while in Bauchi and Lagos not many have.

**Table 7.1. Percentage of Health Facilities with a Functioning Health Management/Development Committee and Gender of Committee Members across States, and across Facility Ownership**

	Bauchi	Cross River	Kaduna	Lagos	Public	Private	Total
Management/ development committee	40%	71%	75%	26%	67%	26%	51%
Male members	9.6	6.3	16.4	4.3	11.6	4.8	10.2
Female members	4.1	4.3	3.2	4.5	4.2	3.1	3.9

Source: Health Facility Survey (EPOS, CISH, CHESTRAD, 2007).

The majority of the members of these committees are men, with exception of Lagos state where, on average, there is the same number of women and men in these committees. Most of the members of these committees are selected by the community head or through an election in the community. Nevertheless, on average there are at least four women in these health committees. Indeed, according to the NPHCDA guidelines, a representative of women associations/groups should be a member of the community health committee.

Most health committees meet at least once a month (table 7.2). In Bauchi, however, 30 percent of these committees only meet a few times a year.

**Table 7.2. Frequency of Meetings of Health Committees across States**

	Bauchi	Cross River	Kaduna	Lagos	Total
At least once a month	68.8	92.9	71.7	76.2	79.4
A few times a year	31.3	5.4	19.6	19.1	16.8
Once a year	0	1.79	8.7	4.76	3.87

Source: Health Facility Survey (EPOS, CISH, CHESTRAD, 2007).

In all states but Lagos, community health committees only have a limited involvement in the facility management (table 7.3). Most of this involvement is in the request of vaccines and in the maintenance of facilities. Some of them also intervene in solving administrative and staff issues. In Lagos, even though only few facilities have a community management/development committee, these committees are very active and intervene in many different activities and decisions.

**Table 7.3. Actions of Community Health Management/Development Committees across States and Facility Ownership (in %)**

	Bauchi	Cross River	Kaduna	Lagos	Public	Private	Total
Action	33	28	38	90	34	61	41
Procurement of drugs	11	4	23	81	11	56	21
Fixed price of drugs	11	4	21	71	11	47	19
Fixed user charges	6	9	20	81	12	50	21
Requested more vaccines	47	52	60	76	58	51	56
Maintenance of facility	51	48	36	86	48	58	50
Provided fuel	0	23	15	86	15	56	24
Repaired equipment	9	27	26	90	23	58	31
New investment	3	23	21	76	16	56	25
Solved administrative issues	37	34	62	90	48	61	50
Solved staff issues	46	37	62	86	50	64	53

Source: Health Facility Survey (EPOS, CISH, CHESTRAD, 2007).

Despite the large percentage of facilities with management committees and their involvement in some managerial issues, others make the final decision (table 7.4). In the facility survey, facility heads were asked who takes the final decision on hours of operation of the facility, new construction, use of IGR and others. Most facility heads responded that both the LGAs and facility heads were the main decision makers. For instance, the LGA was listed as the main decision maker for new construction, the acquisition of new equipment, the transfer of staff. The facility head was reported as main decision maker for the facility hours of operation, making drugs and supplies available, setting user charges, use of IGR and taking disciplinary actions.

**Table 7.4. Final Decision on Health Facility Managerial Issues (in %)**

	Facility head	LGA
Facility hours of operation	73	19
New construction	38	61
Acquire new equipment	42	54
Make drugs available in facility	57	36
Making medical supplies avail	49	43
Setting charges for drugs	57	34
Setting charges for treatment	59	29
Use of IGR funds	56	37
Taking disciplinary action	52	46
Transfer of staff	30	58

*Source:* Health Facility Survey (EPOS, CISH, CHESTRAD, 2007).

In summary, with exception of facilities in Bauchi, most public facilities sampled in the survey worked closely with health committees that met at least monthly. However, the involvement of these committees in the management of facilities is rather limited, as most decisions are taken by either the facility head or by the LGA. This is not surprising as many of these committees were created to support health activities in general but did not have a strong mandate to participate in the facility management. In particular, the community health development committees as set up in the national guidelines are not directly involved in the management of health facilities. The Ward Development Committees, in contrast, are supposed to oversee the functioning of the facilities in the Ward. But the guidelines do not specify what this oversight role implies and what power would these committees have to impose and enforce sanctions.

Another mechanism to improve client's power in relation to providers is by making the provider's income depend on the demand of clients, particularly poor clients (World Bank, 2003). This is what patients do in private facilities. As seen previously, often in public facilities patients also pay for services. However, this does not always give patients power in relation to providers, especially if no other options or providers are available. Only when client's payments directly affect the income of the provider can these payments create the incentives for providers to offer quality services. When these payments are retained by the public provider and are reinvested in the facility or in the payment to frontline providers they can produce significant improvements in service provision. In Nigeria, most services provided by public health facilities have fee charges. These charges, however, have not increased the power of clients, as the facilities and health personnel cannot retain these revenues and use them for any improvements. These resources are sent back to the local government as they are considered part of their internally generated revenue.

### **Possible Ways Forward**

Initiatives to revitalize health committees and to ensure their participation in the management of health facilities have recently started. In Kaduna, the SMOH, with the support of DFID-financed project PATHS, is implementing an initiative to build capacity in PHC health committees so that they can play a more prominent and

proactive role in health and to ensure that the community voices “can be heard by health providers and the government” (Operation Manual for Health Facility Committees in Kaduna State). PATHS has also supported similar initiatives in Ekiti and into less extent in Jigawa, Kano, and Enugu.

The Kaduna Facility Health Committee Strengthening Initiative centers the role of the Committee around the health facility so that it can support the facility work and link it with the nearby community. In particular, the role of these committees are to: (i) support the health facilities to deliver services; (ii) increased access, particularly of the very poor to services; (iii) monitor the work of the facility; (iv) advocate for increased government support for the facility; (v) help build good relationship between facility and its catchment communities; (vi) and be the first point of contact for all services (Operation Manual for Health Facility Committees in Kaduna State). To support this initiative, the state has drafted detailed operational and training manuals for facility health committees. These committees have been revitalized in most of the state and some have started to produce results (see box 7.1).

**Box 7.1. Kaduna: Example of Facility Health Committee Role in Improving the Condition of PHC Facilities**

“Our local health facility lost some land when a dual carriageway was constructed. The state government planned to compensate local government for the loss. We lobbied the state government and asked to be paid the compensation directly. We wanted to avoid local government getting the cheque because there would be long bureaucratic delays in moving ahead with the building...The funds were released in September 2007. By early December 2007 we had renovated large parts of the health facility, built a new delivery ward, fenced the facility, installed a new water tank, and dug a pit latrine for patients. The new ward is bigger and better than what was originally in place. It was not easy to make the argument. We had to use impressive people for this... The Local Government PHC Co-ordinator assisted a lot. Everybody knew that if we got the money we could do a lot for the clinic. We submitted an expenditure report to local government in early December 2007 and have arranged for the Local Government Chairman to come and inspect the building work.”

*Babban Dodo PHC Facility Health Committee, Kaduna*

Source: PATHS Technical Brief.

The initiative in Kaduna is meant to increase “client’s power” in relation to providers not only through the facility health committees’ (FHC) participation in the management and monitoring of the facilities but also through encouraging clients complaints and redress mechanisms. The FHC in the states are encouraged to set up suggestion boxes, establish formal systems for client complaints, and undertake surveys of client satisfaction. The members of the revitalized FHC have also been trained to advocate in front of policy makers, in particular those that control the budgets, for issues affecting the performance of the PHC.

Many states have started to implement programs to offer “free” services to women and children. This policy can provide an opportunity to make the income of providers depend more on the services they provide. The subsidy could be paid directly to the client through vouchers and not to the provider as has been done until now. Vouchers, as other demand-side subsidies, can be costly. They need to be produced and distributed, providers need to be contracted, monitored and reimbursed, and so forth

(World Bank, 2005). Given this cost, it might only be possible to follow this policy in the cases where the benefit would be highest. This benefit will be highest when there is competition in the service provision, when there are multiple service providers and when the vouchers can be used in all available or accredited providers, including private providers (World Bank, 2005). In many urban and semi-urban areas in Nigeria there are multiple providers, both public and private. By subsidizing the demand and giving patients a choice of providers, vouchers create incentives among providers to improve service delivery; otherwise patients might decide to go somewhere else for services. Vouchers are increasingly being used in many developing countries to improve access and quality of services (see box 7.2).

### **Box 7.2. Experience with Vouchers for Health Services**

In Nicaragua vouchers have been used to increase access to sexual workers to STI treatment. Between 1996 and 1999 vouchers were delivered in six occasions and between 29 percent and 44 percent of these vouchers were used. The incidence of gonorrhoea dropped 71 percent among voucher users.

Also in Nicaragua between 2000 and 2002 in poor neighborhoods of Managua, a voucher program was used to increase adolescent access to reproductive health services. Perceived quality of these services as well as access to contraceptives increased.

In Tanzania a voucher program started in 2000 to increase access to insecticide treated bed nets. By 2006, this program, called "Hati Punguzo," had achieved a 60 percent coverage of the targeted population and surpassed the key milestone of over one million redeem voucher.

In Kenya, a pilot project has started to provide safe motherhood, family planning, and gender violence recovery services to disadvantaged people in three rural districts (Kisumu, Kiambu, and Kitui) as well as two urban slums in Nairobi. The program works through vouchers that can be redeem in certified public, private, and faith based facilities. This program started in 2006. By May 2007, more 38,000 vouchers have been purchased and 15,000 claims were purchased.

In Uganda, a project has started to provide vouchers sold at a nominal fee to entitle the holder to the whole treatment associated with safe child birth or the treatment of STIs. 150,000 households in the greater Mbarara region in western Uganda are expected to benefit from this project.

*Source:* Meuwissen et al. (2006a); Jones et al. (2006); Meuwissen, et al. (2006b); Weller, S.; and <http://www.output-based-aid.net/>.

In places where patients have no choice of provider, vouchers could still offer some benefits as they give the existing provider an incentive to offer more services, although not necessarily to increased the patient's perception of quality of these services (World Bank, 2005). Vouchers are expensive to manage, but in the case of services that are relatively easy to monitor and quantified as it is the case of some standardized preventive services such as immunization and pre-natal care and where the recipients of the vouchers are easy to identified, such is the case of demographic targeting (that is, pregnant women and children under five), the benefits from these vouchers might still outweighs their costs.

Nevertheless, as seen in a previous chapter, most PHC facilities are in very poor condition and do not have the equipment, supplies, and drugs needed to offer services. In many areas, these facilities are the only provider households have access to. In this case, a demand subsidy would need to be complemented with a rehabilitation and equipment program in public facilities.

Finally, community insurance schemes can also increase the client's power in front of the providers. They can contribute to health care costs and increase utilization (Carin et al., 2005). These schemes buy services in bulk from the facilities, increasing thus the power of the community in relation to providers. There are already some functioning community-based health insurance schemes in Nigeria, although at the moment they only cover a very small percentage of the population.

**Note**

<sup>1</sup> General Note: The discussion on the results of the Health Facility survey comes from the Final Report for this survey prepared by EPOS Health Consultants, Canadian Society for International Health (CSIH), and Center for Health Sciences Training, Research and Development (CHESTRAD).

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# Appendixes

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## Appendix A: Sample Size

Source: EPOS, CSIH, CHESTRAD (2007)

### Health Facility Survey

#### *Assumptions for Calculation*

- The proportion of facilities with drugs and equipment was 20%,
- A level of significance of 5%,
- An estimate of 250 facilities per state
- An absolute deviation of 10%

#### *Sample Size Determination*

1. Using software from the Center for Disease Control (CDC) in Atlanta (epi info 6), a minimum sample size of 49 facilities was arrived at. This was multiplied by 1.5 to arrive at a sample size of 75 facilities per state. A design effect of 2 was used for Lagos state, which gives 98 facilities in Lagos state.

#### *Sampling Procedures*

- A stratified, multistage random sampling method was employed.
- In each state, a list of LGAs was prepared.
- The LGAs were then stratified into rural, urban and semi-urban LGAs
- One rural, one urban and one semi-urban LGA was chosen at random (using a table of random numbers or by balloting)
- In the selected LGAs, a list of all Primary Health Centers (PHCs) was compiled based on private and public sector stratification.
- The sample size of 75 is divided into three, based on the number of PHCs in the selected rural/ urban/semi-urban LGAs, that is, probability proportional to size.
- Let the PHCs in the rural LGA=A , the PHCs in the urban LGA=B and the PHCs in the semi-urban LGA=C
- No. of PHCs selected in the rural LGA =  $\frac{\text{no of PHCs in A}}{A+B+C} \times 75$
- Number of PHCs selected in the urban LGA =  $\frac{\text{no of PHCs in B}}{A+B+ C} \times 75$

- Number of PHCs selected in the semi-urban LGA =  $\frac{\text{no of PHCs in C} \times 75}{A+B+C}$
- The number to be selected in the private and public sectors in the rural, urban and semi-urban LGAs was also determined based on the stratification by public and private sectors in each of the selected rural/urban/semi-urban LGA.
- These PHCs were selected using simple random sampling by a table of random numbers.

#### *Justification for Sampling Method*

- A stratified multistage random sampling method was employed based on the rural/urban/semi-urban and public/private sector stratification
- Probability proportional to size was used to divide the PHCs based on the rural/urban/semi-urban and public/private sector division
- Sampling was done in 3 stages, hence the multistage approach.

#### **Household Survey**

##### *Assumptions for Calculation*

- Proportion of people using the nearest health facility = 10%,
- A level of significance of 5%,
- A population of 16500 is assumed for each LGA.
- An absolute deviation of 10%
- A non response rate of 15%
- A design effect of 2

##### *Sample Size Determination*

- Using CDC software, *epi info 6*, a minimum sample size of 137 households was arrived at. This was adjusted for non response (15%) and a design effect of 2. Therefore the sample size became 400 households per state.

##### *Sampling Procedures*

- A stratified, multistage random sampling method was employed.
- In each state, a list of LGA was prepared
- The LGAs were then stratified into rural, urban and semi-urban LGAs
- One rural, one urban and one semi urban LGA was chosen at random (using a table of random numbers or by balloting)
- In each stratum, that is, rural /urban/semi-urban, a list of Enumeration Areas (EAs) was prepared
- The sample size of 400 was divided into three, based on the number of households in the selected EAs in the rural/urban/semi-urban stratum: that is, probability proportional to size.
- that is, Let the EAs in the rural LGA=A, the EAs in the urban LGA=B, and the EAs in the semi urban LGA=C
- No. of households selected in rural EAs=  $\frac{\text{no of households in A} \times 400}{A+B+C}$

- No. of households selected in urban EAs=  $\frac{\text{no of households in B}}{A+B+C} \times 400$
- No. of households selected in semi-urban EAs=  $\frac{\text{no of households in C}}{A+B+C} \times 400$
- A list of the households in the selected EAs was prepared.
- The number of households was selected using simple random sampling by a table of random numbers.
- Since we were selecting 75 facilities per state, and 400 households, we required 5 households per selected facility.

#### *Justification for Sampling Method*

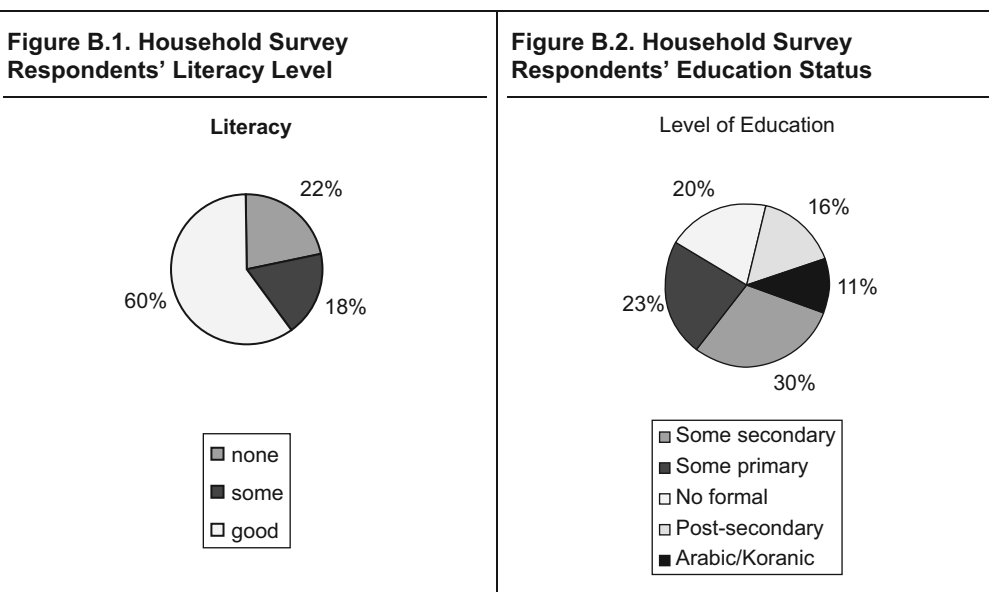
- We defined coverage in terms of households within 10km radius from the selected facilities
- A stratified multistage random sampling method was employed based on the rural/ urban/semi-urban and public/private sector stratification
- Probability proportion to size was used to divide the PHCs based on the rural/urban/semi-urban and public/private sector ratios
- Sampling was done in 3 stages, hence the multistage approach.

## Appendix B: Household Survey Sample Characteristics

Source: EPOS, CSIH, CHESTRAD (2007)

### Household Characteristics

Seventy-seven percent of household heads—the selected respondent for the survey—were male. When the results were tabulated by gender, there was little difference in any of the key variables, suggesting that the household head consulted other family members in responding to the survey questions. The median age of the respondent was 37; 82 percent were married with 71 percent having one wife. Sixty-one percent of respondents were self-employed and 18 percent civil servants. The most frequent occupation was farmer (36 percent) followed by skilled worker (23 percent). Sixty percent of the respondents reported themselves to having good literacy skills, while 69 percent of respondents reported having some secondary education or less. Most respondents (70 percent) were indigene to their community. Both literacy and education percentages decline by age, as measured by age groups (20–44, 45–64, 65+) of the respondents. The largest household sizes were found in the 45–64 age group.



**Table B.1. Employment and Occupation of Household Survey Respondents**

Employment	%	Occupation	%
unemployed	9	Farmer	36
self employed	61	Skilled worker	23
civil servant	18	Business	14
Informal employment	4	Petty trader	12

### *Housing Characteristics of Household Respondents*

The majority of households lived in basic housing conditions with most using all rooms but one as sleeping rooms. Thirty-five percent of households did not have electricity, 22 percent had a toilet, and 57 percent used open dumping for refuse. Household water supply was from stream/river in 13 percent of the cases and from an unsanitary well in 14 percent of households.

**Table B.2. Housing Characteristics of Household Survey Respondents**

<b>Electricity</b>	<b>%</b>
Public source irregular	60
No Electricity	35
Other	5
<b>Toilet</b>	
Flush toilet	22
Latrine	54
No toilet- bush hole	24
<b>Refuse</b>	
Open dump	57
Controlled dumping	28
<b>Water</b>	
Stream/river	13
Well - sanitary	20
Well - unsanitary	14
Bore hole	29
Pipe borne	18

### *Household Survey Respondents' Proximity to Health Facilities*

As indicated earlier, respondents stated that their nearest health facility was owned by LGA (51 percent), state (20 percent), federal government (2 percent), and a private sector facility (26 percent). Eighty-two percent of respondents were within a 30 minute walk of the facility with a further 15 percent between 30-60 minutes. In terms of facility type, 26 percent were health post, 42 percent basic health center, 9 percent comprehensive health center with the remaining 21 percent hospital. As noted above, the reader should be aware that the hospital percentage was over-stated due to classification and coding errors. The majority of respondents (77 percent) stated they patronized their nearest health facility. Respondents who did not use their nearest facilities stated it was due to the facility "not being well equipped" (this reason decreased with facility type) or the facility being "too expensive" (this reason increased with facility type).

**Table B.3. Household Survey Respondents' Proximity to Nearest Health Facility**

<b>Ownership</b>	<b>%</b>
Local	60
State	15
Federal	3
Private	21
<b>Distance</b>	
<30 min walk	82
½ - 1 hour walk	13
> 1 hour walk	5
<b>Type of Facility</b>	
Specialist hospital	10
General hospital	11
Comprehensive Health Center	9
Basic Health Center	32
Dispensary/Health Post	26
Maternity	10
<b>Patronize nearest PHC</b>	<b>77</b>







# Eco-Audit

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This paper, based on quantitative surveys at the level of primary health care facilities, health care personnel, and households in their vicinity, aims at understanding the performance of primary health care providers in four states in Nigeria. As possible ways to improve performance, the paper concludes that clearly defining lines of responsibility, implementing performance-based financing of local governments and providers, and collecting, analyzing, and sharing information are some options that can help realign incentives and improve accountability in the service delivery chain and service provision.

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