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NIGERIA HEALTH SYSTEM ASSESSMENT 2008



April 2009

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Mission

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

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NIGERIA HEALTH SYSTEM ASSESSMENT 2008

DISCLAIMER

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PREFACE

The Federal Republic of Nigeria is deeply concerned about the health and well being of its citizens. Our constitution affirms that health is a right of all Nigerians, and our government firmly believes that good health is central to development. Since 1999, our government has invested significant resources in addressing priority health challenges, training medical personnel, procuring equipment and drugs, and undertaking major policy reforms. We are also grateful to our development partners who have provided support to address priority health areas such as HIV, malaria, polio, tuberculosis and to some extent health systems

Nigeria is committed to achieving globally and regionally established targets such as the Millennium Development Goals and the Abuja Declaration which aim to alleviate poverty and improve health,. Indeed, our policy frameworks and plans are guided by the objective of attaining national and international targets. Progress has been slow and substantial work remains as too many Nigerian men, women, and children continue to suffer, and unfortunately perish, from preventable diseases.

The Nigeria Health System Assessment was conducted by the Federal Ministry of Health in collaboration with the United States Agency for International Development's Health Systems 20/20 Project and aims to provide a rapid yet comprehensive assessment of Nigeria's key health systems functions. As such, it is organized around health system components that cover the following areas: Governance, Health Financing, Health Service Delivery, Human Resources for Health, Pharmaceutical Management, and Health Information Systems. The report builds upon previous assessments that have quantified human resource availability, service provision availability, and financing policies.

I commend everyone who has contributed in putting this document together and recommend the report to federal and state policymakers, administrators, development partners, non-governmental organizations, and other partner agencies for use as guidance in their specific investments in health systems strengthening.

The conclusions and recommendations highlighted in this report can only be realized with commitment and cooperation among all stakeholders. It is our hope that, through cooperative efforts among our international and local partnerships, we can accomplish the goal of a vibrant health care system and that our interventions can be informed by the holistic approach to health systems development outlined in this report. We hope that our achievements will serve as an inspiration for other African nations to follow as we prepare to meet the demands for health services in the era of HIV/AIDS and other emerging diseases.



Professor Babatunde Osotimehin, OON
Minister of Health

April 2009

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral Drugs
CBO	Community-based Organization
CHAN	Christian Health Association of Nigeria
CHEW	Community Health Extension Worker
CHO	Community Health Officer
CIDA	Canadian International Development Agency
CISHAN	Civil Society HIV/AIDS Network
CSO	Civil Society Organization
DFID	Department for International Development
DOTS	Directly Observed Treatment Short-course
DPS	Department of Pharmaceutical Services
EDL	Essential Drug List
EXCO	Executive Committee
FATF	Financial Action Task Force
FBO	Faith-based Organization
FCT	Federal Capital Territory
FMOH	Federal Ministry of Health
FOMWAN	Federation of Muslim Women Associations of Nigeria
GDP	Gross Domestic Product
HERFON	Health Reform Foundation of Nigeria
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HMB	Hospital Management Board
HMIS	Health Management Information System
HR	Human Resources
HRH	Human Resources for Health
HRIS	Human Resources Information System
HRO	Health Records Officer
HSA	Health System Assessment
HSDP	Health Systems Development Project
HSRP	Health Sector Reform Program

ICT	Information and Communication Technology
IGR	Internally Generated Revenue
ISS	Integrated Supportive Supervision
JIMSO	Jigawa Medicare Supply Organization
LGA	Local Government Area
MDGs	Millennium Development Goals
MRO	Medical Records Officer
MTEF	Medium Term Economic Framework
NACA	National Agency for the Control of HIV/AIDS
NAFDAC	National Agency for Food and Drug Administration and Control
NDHS	Nigeria Demographic and Health Survey
NGO	Nongovernmental Organization
NHMIS	National Health Management Information System
NIMR	Nigerian Institute of Medical Research
NIPRD	National Institute for Pharmaceutical Research and Development
NPHCDA	National Primary Health Care Development Agency
PATHS	Partnership for Transforming Health Systems
PCN	Pharmacists Council of Nigeria
PEMFAR	Public Expenditure Management for Fiscal Accountability Review
PLWHA	Person(s) Living with HIV/AIDS
PMTCT	Prevention of Mother-to-Child Transmission
PMV	Patent Medical Vendors
PPP	Public Private Partnerships
PPPHAA	Peer and Participatory Rapid Health Appraisal for Action
SACA	State Action Committee on AIDS
SCH	State Council on Health
SEEDS	State Economic Empowerment and Development Strategy
SIACC	State Inter-Agency Coordination Committee
SMOHs	State Ministries of Health
SOP	Standard Operating Procedure
SPA	Service Provision Assessment
TB	Tuberculosis
USAID	United States Agency for International Development
VCT	Voluntary (HIV) Counseling and Testing
WHO	World Health Organization

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ASSESSMENT RESPONDENTS AND PARTICIPANTS:

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EXECUTIVE SUMMARY

The Nigerian health sector is broad and is comprised of public, private for-profit, nongovernmental organizations (NGOs), community-based organizations (CBOs), faith-based organizations (FBOs), and traditional health care providers. The composition of health providers is also very heterogeneous, and includes unregistered and registered providers ranging from traditional birth attendants and individual medicine sellers to modern hospitals. Thirty-eight percent of all registered facilities in the FMOH health facilities database are privately owned, of which about 75% are primary care and 25% are secondary care facilities (World Bank, 2005). Private facilities account for one-third of primary care facilities and could be a potentially important partner in expanding coverage of key health services.

The methodological approach used in assessing the national health system in Nigeria is based on the Health Systems Assessment Approach that was developed by Abt Associates Health Systems 20/20 project in collaboration with Rational Pharmaceutical Management under the Management Sciences for Health and the Quality Assurance Project. This assessment is the most recent comprehensive review of the entire health system drawing on primary data collection as well as on the wealth of existing studies and knowledge about the trends and challenges in Nigeria. The approach assesses the six major components of a health system which **include Human resources for Health (HRH), Health Financing, Health Services Delivery, Health Information Systems, Governance, and Pharmaceutical Management.**

The assessment was conducted in July 2008 by a team of local and international researchers. The team applied five interrelated steps to conduct the health system assessment (HSA).

- **Step I Stakeholders consensus building:** The research team conducted a consensus building workshop with key stakeholders on the scope, methodological approach, expected product and the period of the assessment. State Health Commissioners and HMIS officers from all 37 states and key development partners were invited to participate in a high-level consensus building so that the findings would more fully represent the diversity of strengths and challenges in the Nigerian health system.
- **Step II Data collection workshop:** Following the consensus building workshop, the HMIS officers participated in a three-day data collection workshop. At the workshop, participants presented the data from their states to the HSA team. In addition, the HSA team conducted group interviews by zone to review and collect additional data on qualitative indicators across all six health system components.
- **Step III Data validation:** Workshop participants returned to their states, completed further data collection on missing variables, validated the credibility of certain indicators, and then sent the data to the research team.
- **Step IV Document review:** Published and unpublished documents relevant to the health system were reviewed to inform the interpretation of quantitative and qualitative data.
- **Step V: Data analysis:** The quantitative data collected were analyzed by zone for each health system component. The zone-specific analysis focused on trends and disparities among states

within each zone. Patterns in findings across zones were then aggregated to identify strengths, weaknesses and new opportunities for health systems interventions.

Key Findings

1. **Human resources for Health (HRH):** Although great disparities exist across zones and across the rural-urban divide, the country has a good supply of Human resources for Health (HRH) compared with other countries in the region. However, functional HRH planning and management units with sufficient personnel and adequate human resources planning skills within the SMOH and Federal level are generally not adequate.
2. **Health Financing:** Relative to its high burden of disease and large population, health financing levels in Nigeria remain low, on a per capita basis and as a share of the state government budget. At the Federal level, the budgetary allocations highlight systematic underfunding of capital projects. Data shows that relatively higher levels of financing are observed in states with significant donor presence, and even in these states, total health expenditure per capita is less than US \$4.00.
3. **Services Delivery:** The coverage of most key preventive and curative health services is relatively low in Nigeria. This is compounded by geo-political zone, rural-urban and socio-economic disparities in coverage. For example, despite the rapid expansion of HIV services across the country, coverage of PMTCT, VCT and ART remains relatively low. Fewer than 25% of pregnant women receive any HIV counseling. VCT coverage is also low. Overall, 6% of women and 14% of men aged 15-49 were tested and received results. Rural areas and northern states lag behind on VCT and counseling coverage. Individuals belonging to the poorest fifth of the population are much less likely to receive HIV-related services than their counterparts in the richest 20% of the population: 7 times less likely for HIV counseling during pregnancy, 18 times less likely for VCT among women and 4 times lower for men indicating that there may be both economic and gender barriers to HIV service use. Overall national hospital bed availability of 9.2 per 10,000 people is above sub-Saharan average of 5.6 per 10,000 people. However distribution varies as shown by the figure of 4.3 beds per 10,000 people in the North West zone.
4. **Governance:** Governance across the health sector is very weak. For example, institutional arrangements for channeling advocacy and participation are not functioning well. There is significant variation on the level of effectiveness of SCH's across zones. Furthermore, there are few organizations that are informed and capable enough to link members of the public with providers and policymakers or engage with public officials in the establishment of policies, plans and budgets for health services.
5. **Health Information Systems (HIS):** HIS capacity across the country varies widely. Most states have limited budgets for HIS activities that provide adequate support for HIS. Few states have an adequate (well trained and sufficient resources with all positions filled) cadre of HIS personnel, particularly at state- and LGA levels. There is significant variation among states by level and type of available health information cadres.
6. **Pharmaceutical Management:** The pharmaceutical management system has mixed performance results. While the government has made tremendous progress in developing national pharmaceutical policies and regulations, implementation and enforcement of these policies lags far behind.

RECOMMENDATIONS

Based on the findings and conclusions, the Federal government in collaboration with state governments and development partners should:

1. Establish national norms and a national HRH monitoring framework for addressing human resource imbalance. The framework for HRH deployment should be based on factors such as workload, disease burden, population size and incentives for attracting and retaining staff.
2. Strengthen public participation in policy development and implementation through a) strengthening of voice indicators in the HMIS, b) supporting independent policy analysis and advocacy groups to 'demystify' health expenditures and service delivery so that ordinary citizens can understand them, and c) working with one or more CSOs to develop local knowledge about health and health services/budgets and thereby become effective intermediaries and advocates for citizens.
3. Design and implement resource tracking efforts at the Federal and sub-national levels, including but not limited to conducting national and state health accounts, for general health as well as for HIV/AIDS, malaria, reproductive health, and child health. In addition, they should explore mechanisms to enhance the accountability and transparency of financial flows at the state level, including responsibilities for health financing. Engage civil society in this effort, to generate demand for information on how health is financed.
4. Increase the resources (funding and trained personnel) availed to the central and State HIS units to enhance capacity to coordinate the HIS and produce relevant, timely health information products.
5. Issue a directive from the FMOH to clarify roles and responsibilities with respect to provision of essential supplies (i.e., registers and forms) for recording health information. This should include defining and implementing standards for data sharing among departments and vertical programs at the FMOH level.
6. Define or scale-up formal accountability mechanisms that prioritize user and community participation in policy formulation and service monitoring and that oblige policymakers and providers to listen and respond to citizens and users.
7. Define or scale-up policy benchmarks and technical standards of care that members of the public can easily access and use in holding policymakers and providers to standard and also strengthen local monitoring of technical standards, including by supporting a network of CSOs to build a citizens' coalition that will monitor service delivery improvement, good governance and anticorruption.
8. Strengthen and publicize Servicom's role in helping users to claim the services they deserve and introduce incentives and sanctions that encourage the production of service quality and cost data.
9. Engage stakeholders at federal, state, and local government levels to enforce and implement good procurement practices into the drug management system at the state level.

10. The FMOH should lead the SMOH to scale-up and strengthen the consumer protection movement by increasing awareness of pharmaceutical management problems among consumers.

I. INTRODUCTION

Nigeria is a federation of 36 states plus the federal capital territory of Abuja. With an estimated 148 million people, Nigeria holds approximately one-sixth of Africa's population and is the most populous country on the continent. Its population is expected to rise to 200 million by the year 2025.

Urbanization in Nigeria is occurring rapidly, with the percentage of the population living in urban areas expected to rise from 42% to 55.4% by 2015. The country's population is largely young: the median age is 18.7 years and about 45% of the population is under the age of 15. (Population Reference Bureau 2007)

The country is very diverse with more than 250 ethnic groups, 500 indigenous languages, and diverse religions including Islam, Christianity, and traditional African beliefs. The population in the north is predominantly Muslim, while the south is predominately Christian. The major ethno-cultural spheres are the Hausa in the north, Yoruba in the southwest, and Ibo in the southeast.



According to the World Bank, Nigeria's annual economic growth rate from 2000 through 2006 averaged 2.5% per annum. The economy largely relies on the oil and gas sector, which accounts for 99% of export revenues, 85% of the government budget revenue, and 52% of gross domestic product (GDP). Agriculture, mining, light industry, and banking sectors also contribute significantly to GDP.

Despite the large revenues generated from oil wealth and natural resources, Nigeria is one of the poorest countries in the world with a GDP per capita of only about US\$1,161 approximately 54% of the population lives on less than one dollar per day. (World Bank, 2007) Moreover, inequalities have widened across income groups and between rural and urban areas in recent years. Furthermore, as a result of the fact that oil resources are concentrated in the south, the southern part of the country is much more developed than the north.

Three decades of political instability and economic crisis have led to a deterioration of national health indicators. On most core health indicators, Nigeria fares worse than similar sub-Saharan African countries (Federal Republic of Nigeria, 2004). For example, the maternal mortality ratio of 800 per 100,000 live births (2000 est.) is one of the highest in the world. Similarly, under-five mortality is 194 per 1,000 people (2007 est.), and approximately 1 million children under five die every year from preventable diseases such as malaria, diarrhea, and pneumonia. (Kaiser Family Foundation, Global Health Facts 2008)

The rising disease burden from HIV/AIDS and other diseases are straining an already weak health system. Adult (age 15-49) HIV prevalence is estimated at 3.1% and approximately 2.6 million people in Nigeria are living with HIV/AIDS (UNAIDS 2007). These estimates give Nigeria the third largest population of people living with HIV/AIDS (PLWHA) globally. Moreover, onchocerciasis and schistosomiasis are prevalent in selected rural areas, principally in the mid-belt and the north. As in most developing countries, the prevalence and the incidence rate of non-communicable diseases such as coronary heart disease, hypertension, diabetes and cancer is also rising.

Table I provides an overview of basic demographic, socioeconomic, and health indicators. The population is growing at a rate of 2.1 percent, compared to a global average of 1.17 percent. The crude birth rate, is also extremely high at the rate of 40.20 births per 1,000 people (2007 est.), compared to a global average of 20.18 births per 1000 people. (Kaiser Family Foundation, Global Health Facts, 2008 and CIA World Factbook, 2008.) Per capita expenditures on health are low. Nigeria's per capita expenditure on health in 2006, at 50\$, (WHO 2006 data), was among the lowest per capita health expenditures, globally.

TABLE I: SUMMARY OF DEMOGRAPHIC, SOCIOECONOMIC, AND HEALTH INDICATORS

Indicator	Year	Estimate	Source
Demographic			
Total population	2007	148,093,000	UN Population Division 2007
Annual population growth rate	2005-2010	2.1	UN Population Division 2007
% of population in urban areas	2007	50	UN Population Division 2007
Crude birth rate (births per 1,000 pop.)	2007	40.2	UN Population Division 2007
Crude death rate (deaths per 1,000 pop.)	2007	16.9	UN Population Division 2007
Life expectancy at birth (years)	2006	48	WHO 2008
Socioeconomic			
Gross national income, purchasing power parity, per capita (Int.\$)	2008	1,770	World Development Indicators Database 2008, World Bank*
Per capita total expenditure on health (Int.\$)	2006	50.0	WHO 2006 data
Adult literacy rate, both sexes (%)	2006	71	UNESCO 2006
Health			
HIV prevalence, adults (15-49) (%)	2007	3.1	UNAIDS 2007
Annual TB Incidence (all cases/100,000)	2006	311	WHO 2008
Maternal mortality ratio (per 100,000 live births)	2005	1,100	WHO, UNICEF, UNFPA and World Bank, 2007
Total fertility rate (per woman)	2006	5.5	WHO 2008
Infant mortality rate (per 1,000 live births)	2006	99	WHO 2008
Under 5 mortality rate (per 1,000 live births)	2006	191	WHO 2008

*The World Bank. 2008. Gross national income per capita 2007. <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>

*UNESCO Institute for Statistics. 2006.

http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=124&IF_Language=eng&BR_Country=5660&BR_Region=40540

*UNAIDS. *AIDS epidemic update 2007*. 19 November 2007. Geneva, Switzerland.

I.1 OVERVIEW OF THE NATIONAL HEALTH SYSTEM

This section presents a brief overview of the national health system. It discusses the composition of the public and private health sectors, reviews service provision by level of care and outlines critical issues within the six components of the health system.

I.1.1 HEALTH SYSTEM STRUCTURE

The Nigerian health sector is broad and comprises of public, private for-profit, nongovernmental organizations (NGOs), community-based organizations (CBOs), faith-based organizations (FBOs), and traditional health care providers. The health sector is very heterogeneous, and includes unregistered and registered providers ranging from traditional birth attendants and individual medicine sellers to sophisticated hospitals. Thirty-eight percent of all registered facilities in the FMOH health facilities database are privately owned, of which about 75% are primary care and 25% are secondary care facilities (World Bank, 2005). Private facilities account for one-third of primary care facilities and could be a potentially important partner in expanding coverage of key health services.

Public Health Sector: Nigeria is a federation with three tiers of government – federal, state, and local. While the federal government develops policies that are relevant across all three levels, responsibility for health service provision in the public sector reflects the three-tier structure. According to the Department of Health Planning, Research and Statistics of the Federal Ministry of Health (FMOH), there were over 20,000 registered health facilities in the public sector across these three tiers in Nigeria in 2007. The levels of care in the public sector are:

- **Tertiary:** Tertiary facilities form the highest level of health care in the country and include specialist and teaching hospitals and federal medical centers. These facilities have special expertise and full-fledged technological capacity that enable them to serve as referral centers for patients from the primary and secondary levels and act as resource centers for knowledge generation and diffusion. Each state has at least one tertiary facility. The responsibility for tertiary care and training falls under the mandate of the federal government.
- **Secondary:** Secondary care facilities include general hospitals, which provide general medical and laboratory services as well as specialized health services such as surgery, pediatrics, obstetrics and gynecology. General hospitals are typically staffed by medical officers (who are physicians), nurses, midwives, laboratory and pharmacy specialists, and community health officers (CHOs). The facilities serve as referral centers for primary health care facilities. Each district, local government area (LGA), or zone is expected to have at least one secondary-level facility. State governments are responsible for this level of care.
- **Primary:** Facilities at this level form communities' entry point into the health care system. They include health centers and clinics, dispensaries, and health posts which typically provide general preventive, curative, promotive, and pre-referral care. Primary facilities are typically staffed by nurses, CHOs, community health extension workers (CHEWs), junior CHEWs, and environmental health officers. It is the expectation and practice that LGAs finance and manage primary health care under the supervisory oversight of the state government.

Private Health Sector: The private sector (including FBO facilities) also plays a large role in the provision of care across the country. It has a wide range of providers including physician practices, maternity homes, clinics, and hospitals. Private for-profit health facilities have proliferated since the mid-1980s and together with the FBO facilities, are reported to provide 80% of health services to Nigerians.

(FMOH, 2007; DFID, 2000; Larbi et al, 2004) The private for-profit facilities provide mostly curative services, while the faith-based facilities provide a wider range of preventive and health promotion services. There are also traditional medicine practitioners and informal medicine vendors.

While the private sector makes an appreciable contribution to health care in Nigeria, the sector is not very well regulated and supported. For example, private sector health care workers have fewer opportunities for training and refresher trainings than those in the public sector. Availability of policies, guidelines, and manuals is also weak in the private sector.

Anecdotal evidence suggests that overall, there is a widespread perception that the quality of both public and private health care services is low, and that service delivery is inadequate. Indeed, the quality, access, efficiency, and the service availability of the health care system has stagnated or declined over the past decades.

I.1.2 REVIEW OF THE MAIN ISSUES WITHIN THE HEALTH SYSTEM COMPONENTS

The section below reviews the main issues within the health systems components in terms of stewardship and management functions. It provides a brief background on each of the following components: human resources for health (HRH), health financing, health service delivery, HIS, governance, and pharmaceutical management.

a. Human resources

Nigeria has one of the largest supplies of human resources for health (HRH) in Africa, comparable only to Egypt and South Africa. Figures provided by the Federal Ministry of Health of Nigeria indicate that, there are about 39,210 doctors and 124,629 nurses registered in the country as of 2006, which translates into 30 doctors and 100 nurses per 100,000 people. These figures are significantly higher than the sub-Saharan Africa average of 15 doctors and 72 nurses per 100,000 people (WHO, 2006).

Despite the large supply of HRH, there are great disparities in health status and access to health care among different population groups in Nigeria. Like most countries, urban areas typically have more health workers than rural areas. Accordingly health indicators in rural areas are worse than in urban areas. For example, 26% of women in rural areas deliver with a doctor, nurse, or midwife compared with 59% of women in urban areas (NDHS 2003). There also are wide variations in health indicators and access to care between the country's six geo-political zones, with indicators generally being worse in the north than in the south.

The government is the primary provider and financier of health training. Nigeria has 18 fully and 5 partially accredited medical schools that produced about 2,000 doctors, 3,700 nurses, and 480 pharmacists per year in 2002/2003. Approximately 60% of medical graduates start their careers in the public sector. (FMOH, 2003)

The outlook is equally positive in the nursing sector, as Nigeria has nursing training schools in all 36 states (with some states having as many as five schools). These institutions produce approximately 3,700 nurses per year, of which an estimated 25% begin their careers in the public sector. Moreover, an estimated 50% of Nigeria's nearly 480 annual pharmacy graduates also launch their careers in the public sector (FMOH, 2003). Nigeria also has a number of institutions that train medical records officers (MROs) and health records officers (HROs) to provide record-keeping support at the primary and secondary health facility levels. No data were available for recruitment in the private sector.

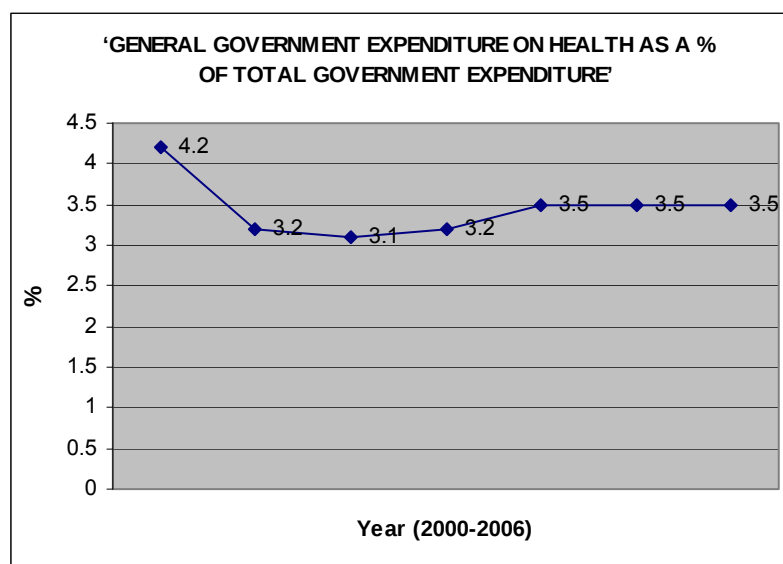
Attrition of staff is not a major issue in the public sector in Nigeria compared to other sub Saharan African countries. However, annual attrition rates for nurses and midwives is higher than the annual production rate. According to the public sector HRH assessment, the overall annual attrition (loss of staff) rate was 2.3% for doctors, 1.4% for nurses, 1.3% for lab staff, and 2.2% for pharmacists. The top three reasons for attrition are resignation (46%), termination (23%), and retirement (16%). There are, however, variations in attrition rates among primary care and secondary care facilities: Doctors and nurses are more difficult to retain at primary care facilities, whereas laboratory, pharmaceutical, and community health workers are more difficult to retain at secondary and tertiary levels.

b. Health financing

The structure of the Nigerian health system and mechanisms for its financing draw their origins from the colonial medical system. During colonial times, services were designed principally for public servants with preventive health care, mainly in the form of hygiene and sanitation, provided to the general population. Financing for public sector service delivery points derived largely from the government budgets. Curative care was largely undertaken and funded by the missionaries, who established FBO service delivery units, many of them outside the capital and in areas that were not readily served by public sector services. Over the years, different tiers of government were implicitly charged with the different health care delivery roles described above: the federal government for tertiary care, state governments for secondary care, and local governments for primary care services. Figure 1 shows the flow of government funding to the health care system. Within this arrangement, however, funding and referral linkages have never been clearly defined.

Health sector reform initiatives accelerated in 2001, primarily in response to the dismal ranking of the Nigerian health system in the WHO's *World Health Report 2000* (WHO, 2000). National policies were developed not only to clarify the roles and responsibilities for the delivery of health care but also to expand options for health care financing. In spite of this overall increase in resource availability in the government budget, overall allocations to the health sector decreased between 2000 and 2006. Government expenditure on health as a percentage of total government expenditure, fell from 4.2% (2000) to 3.5% (2004) and has flat-lined since 2004 (Figure 1). As well, the total expenditure on health as a percentage of Gross Domestic Product (GDP) fell slightly between 2000-2006 (from 4.3% to 4.1%).

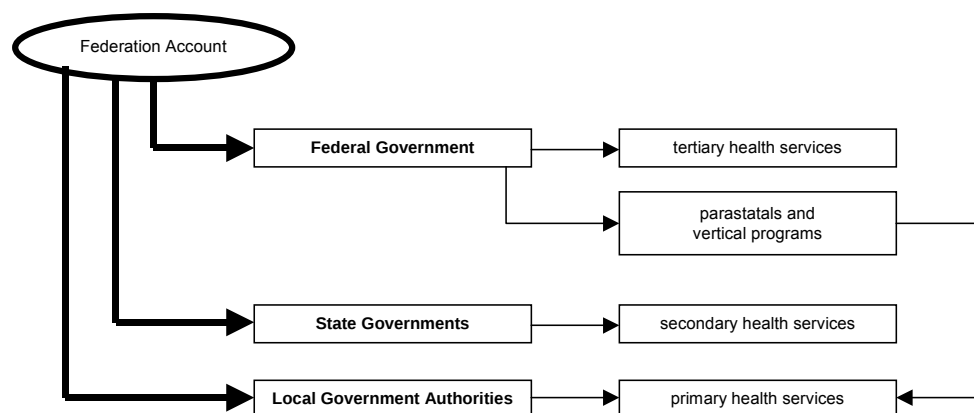
FIGURE 1 WHO, WORLD HEALTH STATISTICS, 2000-2006 DATA



Nigeria obtained debt relief from its Paris group of creditors in 2005. This effort has expanded the overall fiscal space for health in Nigeria. Managed by the Office of the Special Assistant to the President for the MDGs, savings from the debt relief program were focused on social sectors and infrastructure to help Nigeria accelerate its slow progress toward achievement of its MDGs. Twenty-one percent of its 2006 round of allocation from debt relief went to the health sector. In 2007, the appropriation fell to 13.5%, but provided further support for conditional grants and safety nets to assist both states and local governments support expansion of social service delivery, particularly primary health care (Office of the Special Assistant to the President on the Millennium Development Goals, 2006, 2007). Much of these funds were used to support federally directed construction of health centers and other infrastructure projects, procure drugs, and support training of midwives and nurses.

In the public sector, different tiers of government are charged with different health care delivery functions. As mentioned previously, the federal government is responsible for tertiary care, state governments for secondary care, and local governments for primary care services. Figure 2 shows the flow of government funding to the health care system. However, it is important to note that funding and referral linkages have never been clearly defined within the context of this system.

FIGURE 2: GOVERNMENT FUNDING FLOWS TO THE HEALTH SYSTEM IN NIGERIA



Source: Adapted from the FMOH and World Bank, 2006

As such, assessing financial flows and accountability of funds for health in Nigeria remains a dilemma. Indeed, the data required for tracking resource flows, budgets, and expenditure are often not easily available (EPOS Health Consultants et al., 2007). Moreover, complex flow of resources from the federation accounts to operational levels of governance and their allocation to health remains largely determined by global priorities and personal considerations of leadership at the federal and state levels. Further analysis will be necessary to clarify these complex financing mechanisms and generate actionable recommendations about how they can be improved.

The findings of Nigeria's first National Health Accounts (NHA), published in 2006 (WHO, 2006), provide important insights into the sources of health care financing in Nigeria. According to this report, it showed that household out-of-pocket expenditures remain the single largest source of health care financing in Nigeria, providing 65.9% of total health expenditures. This is followed by the government at 26.1% (federal 12.4%, state 7.4%, and local government 6.4%), firms at 6.1%, and development partners at 1.8%. Per capita expenditures on health were US\$50.00 by 2006, (WHO Statistical Information System, 2006 data).

As a part of efforts to strengthen the national health system, a national health policy has been developed and adopted by the Federal Executive Council. The key thrusts of the policy are to expand financial options for health care and strengthen the contribution of the private sector and pre-payment based approaches for financing (Dare, 2008). It also seeks to engage communities and households in community-based schemes for the financing of primary care services. Public-private partnerships (PPPs) are also presented as strategic approaches for the expansion of health financing options at all operational levels.

c. Service delivery

Provision of priority health services (both general and HIV/AIDS-related) is done through public and private facilities. It is important to note that significant inequities are evident in service coverage by zone, rural-urban location, and socioeconomic status across many of these indicators. The following provides a brief summary of health indicators of selected priority health service including immunization coverage, maternal and reproductive health services, malaria, HIV/AIDS, and TB services.

Diphtheria-pertussis-tetanus (DPT3) immunization coverage is frequently treated as a proxy for health system performance because it necessitates three interactions with health personnel and allows distinctions to be drawn between contact with the health system (1+ dose) and effective coverage (all three doses). DPT3 coverage in Nigeria is extremely low, with only 25% of children in the age range of 12-23 months receiving all three doses. However, 43% receive at least one dose of DPT (NDHS, 2003). In comparison, the regional average for sub-Saharan Africa is 72%. In addition, the proportion of children aged 12-23 months receiving all three doses of DPT, polio, BCG and measles immunizations rate for children has declined from 29% in 1990 (NDHS, 1990) to 13% in 2003 (NDHS, 2003).

Use of maternal and reproductive health services is relatively limited. According to the 2003 NDHS, approximately 37% of women did not receive any antenatal care (ANC) and there were sharp rural-urban, regional, and wealth inequities among those who did receive this care. ANC coverage has not shown much improvement since the 1990s. Moreover, the quality of ANC received also shows room for improvement, with only half of recipients receiving counseling on pregnancy danger signs and only two-thirds reporting that urine or blood samples were taken (NDHS, 2003). Between 1998-2003, only 35% of births were attended by a skilled attendant (NDHS, 2003). This national average is considerably lower than that for sub-Saharan African countries (47%).

Malaria is also an important public health priority in Nigeria as the disease is responsible for close to 30% of all childhood deaths and over 10% of maternal deaths. Use of insecticide-treated nets is very low – only 1% of children under five years sleep under a net (NDHS 2003) and only about a third of children under five with malaria get appropriate treatment within 24 hours of onset (Roll Back Malaria, 2001). Moreover, only 1% of pregnant women received preventive treatment for malaria during an ANC visit (NDHS, 2003).

Concerns about access to curative care are also highlighted by the fact that less than half of children with acute respiratory illnesses/fever seek treatment from a health provider, excluding patent medicine vendors (PMVs) and traditional practitioners (NDHS, 2003). When care-seeking behavior is disaggregated by socioeconomic status, it is evident that physical and/or financial access is a barrier to access to curative care.

With regard to HIV/AIDS and TB services, the country has made significant progress in areas of prevention, care, and treatment, but much remains to be done. For example, in 2003, the proportion of women and men who had heard of HIV/AIDS had risen to 86% and 97% (from 74% and 89% in 1999,

respectively) with minimal variations by region. Moreover, knowledge of HIV/AIDS does not show as clear variations by either region or wealth as do many of the other indicators examined (NDHS, 2003).

This is mirrored by increased awareness about important prevention strategies like condom use. Sixty percent of urban women and 40% of rural women (NDHS, 2003) knew that using condoms can help to prevent HIV infection compared with 19% of urban and 11% of rural women in 1999 (NDHS, 1999). Nevertheless, the contraceptive prevalence rate of 13% is also low, highlighting a lack of access to these materials.

There is an ongoing effort to scale up provision of antiretroviral therapy (ART), prevention of mother-to-child transmission (PMTCT), and voluntary counseling and testing (VCT) services. ART uptake has expanded since the free antiretroviral drug (ARV) policy was introduced in 2006 and as of March 2008, services were available at 251 sites. (Nigeria HIV/AIDS Service Provision Assessment 2008).

The cumulative number of individuals on ART increased from 50,581 in 2005 to about 269,859 in March 2008. However, less than 25% of women who gave birth in 2001-2003 were counseled on HIV/AIDS during their pregnancy. VCT coverage is also low only 6% of women and 14% of men had undergone HIV testing and received results (NDHS, 2003).

Nigeria has one of the highest TB burdens in the world with about 450,000 new cases in 2006 alone (WHO, 2008a); an estimated 10% of TB cases are co-infected with HIV. However, only 10% of TB patients are also tested for HIV, below the regional average of 22% (WHO, 2008a). Under the Directly Observed Treatment Short-course (DOTS) program, only 20% of smear positive cases in 2006 were detected. Treatment completion rates were 25% in 2005 and only 13% of TB cases were successfully treated under DOTS (WHO, 2008a). This indicates considerable room for improvement in the DOTS program.

As described above, the private sector in Nigeria is very heterogeneous, and includes unregistered and registered providers ranging from traditional birth attendants and individual medicine sellers to sophisticated hospitals. Thirty-eight percent of all registered facilities in the FMOH health facilities database are privately owned, of which about 75% are primary care and 25% are secondary care facilities (World Bank, 2005). Private facilities account for one-third of primary care facilities and could be a potentially important partner in expanding coverage of key health services.

Estimates suggest that a little over 50% of all registered private facilities are for-profit (World Bank, 2005). In the non-profit sector, FBOs are important service providers. To illustrate, the Christian Health Association of Nigeria (CHAN), an umbrella organization, reports about 3,500 facilities. Although comprehensive data on the composition of the private health sector in Nigeria are difficult to find, there is some evidence which suggests that for-profit private facilities in the formal sector tend to be small in size and have a greater presence in urban and semi-urban areas. Based on the limited information available, no clear patterns are evident in infrastructure or diagnostic capacity private providers.

Quality monitoring of private health sector providers by the government is limited. While state ministries of health (SMOHs) issue licenses to ensure that facilities comply with regulations, enforcement activities are limited. Professional associations do not actively assure quality, although some chapters of the National Medical Association do have committees on ethics and discipline.

Pharmacies and patent medical vendors (PMVs) are licensed to sell over-the-counter drugs only. PMVs are retail outlets for drugs but also act as de-facto service providers. This is especially true in rural areas where access to PMVs tends to be higher than access to health facilities. For example, in Benue state, a 2004 study found one PMV per 3,250 persons, while there was only one primary care facility for every

10,000 persons (World Bank, 2005). Drug stockouts in public sector health facilities and opening hours that are not client friendly act as “push factors” that promote care seeking from pharmacies and PMVs.

Recent research highlights that the private sector is used not only by the urban wealthy, but also by rural populations and by the poor. In fact, as mentioned earlier, nearly 80% of the population utilizes some form of private sector provider (FMOH, 2007; DFID, 2000; Larbi et al, 2004) and over 50% of the population uses *for-profit* private providers (World Bank, 2006). However, as is the case in most of the developing world, the poor are more likely to use informal sector providers who also provide lower - quality services. To illustrate, a survey in the South East zone found that 58% of those in the poorest fifth of the population consult a traditional healer or medicine dealer. The corresponding figure for the richest fifth is 42% (Africa Development Indicators, WB 2006).

The private sector’s role in HIV/AIDS service provision has been discussed mainly in terms of its involvement in workplace prevention, treatment, care, and support programs. Available information indicates that the majority of private sector companies involved in HIV/AIDS workplace programs are multinational companies, including about 85% of the Nigeria Business Coalition Against AIDS. FBOs have played a key role in provision of HIV/AIDS services, though there are indications that the levels and types of interventions may vary. These efforts are not coordinated although a National Faith Based Advisory Committee has been established (Report of the Joint Mid-term Review of the HIV/AIDS National Strategic Framework for Action, 2005-2009. December 2007).

d. Health information systems

The FMOH has had a long-standing interest in HIS, beginning with the establishment of the Department of Health Planning, Research and Statistics in 1976. In 2006, a policy document clearly laying out the responsibilities of the National Health Management Information System (NHMIS) unit was elaborated. The key functions of the NHMIS are as follows:

- Establishment and sustenance of an effective national HIS
- Central coordination of the national information sub-systems
- Collection, processing, and dissemination of relevant and necessary information required for both national health planning and monitoring the utilization of resources in accordance with national priorities, objectives, and health indicators
- Ensuring timely sharing of data to relevant agencies, departments, and programs operating at the federal level
- Providing technical and managerial support to facilitate HIS systems at all levels
- Instituting a regular feedback mechanism to facilities/states (NHMIS)

Although Nigeria has a well-crafted national HIS policy, there are significant divergences between policy provisions and actual practice. For example, a lack of clarity on responsibility for provision (printing and supply) of forms results in frequent stock-outs of essential reporting supplies at LGA, health facilities, and health post levels and therefore impacts reporting rates and data availability. The NHIS provides for one harmonized reporting form for all programs. However, increasing data demands of international donors combined with poor oversight results in additional program specific forms being deployed at the facility level, increasing facility staff workloads and further weakening the system.

Moreover, the FMOH has chronically under-funded HIS activities. Although the government professes a strong interest in evidence-based decision making, as reflected by the creation of departments of planning, research, and statistics in all government ministries, insufficient resource allocation for HIS activities (as evidenced by the frequent, recurrent stock-outs of reporting forms), poor infrastructure (uneven availability of basic information communication technology [ICT] equipment at the lower levels of the system), weak capacity at the sub-state level to collect and utilize health data, lack of coordination of HIS activities at the central level, lack of a data-use culture (information requests are most often ad hoc), and non-alignment of policy and practice adversely affect production and use of health information.

Several other trends are discernible in the Nigerian HIS environment. In the 1960s and 1970s, Nigeria had a functional medical statistics system. Data on mortality, morbidity, manpower, and hospital activities were published on a quarterly and annual basis. However, the creation of parastatal health organizations such as the National Primary Health Care Development Authority (NPHCDA) and the National AIDS Control Agency (NACA), combined with the emergence of vertical disease control programs (i.e., polio, yellow fever, sentinel surveillance, expanded program on immunization, National Contraceptive Logistic Management System, etc.) have severely weakened the overall HIS. Each of these structures has established separate information systems, with varying success.

The parallel systems face the same challenges as the routine system. For example, 18% of primary health care facilities submitted reports in 1995, and NACA has experienced challenges in establishing a routine reporting system for HIV programs. The assessment revealed that reporting through the routine system is irregular and incomplete. Little information is shared by the various “owners” of systems, which impedes access to important health data. Coordination of, and between, systems is virtually non-existent.

This problem is particularly severe in the HIV-AIDS area. Large-scale HIV care and treatment programs were launched in Nigeria under the above-cited circumstances. These programs, necessitating timely and accurate data, hastily implemented a variety of HIV patient management, logistics management, and reporting systems, which operate without any linkages to other national systems, further aggravating the situation. According to USAID/Nigeria, there are currently six HIV-specific patient management systems in operation in Nigeria, each adhering to different technical standards.

On a positive note, various disease-specific studies and surveys (such as the NDHS in 2003 and a Service Provision Assessment in 2008) have been undertaken over the last five years. As such, recent data on key MDG indicators (maternal mortality ratio, under-five mortality, HIV prevalence, and malnutrition) are generally available. The data highlights that Nigeria fares relatively well compared with countries in its income group with respect to timeliness of reporting on key health indicators. (National Health and Development Survey, 2003)

It is important to note that virtually every state in Nigeria has a state HMIS policy, modeled after the national policy but focusing on the key HIS functions to be implemented at the state level. Standardized reporting forms (forms 000 through 003) and data-flow policies have also been developed and disseminated. Form 000 is used by community health workers and while facilities use form 001. LGAs use form 002 to send summary reports to the state level HIS officer, who in turn submits form 003 to the national level every quarter. Reporting frequencies are monthly for community health workers and health facilities, quarterly from the LGA to the state level and semi-annual from the state to the national level.

e. Governance

Over the last 2 decades, governance in the health sector has been very challenging because of the complexity of the sector and the country's complicated federal administrative structure. In the three-tier federal administrative structure each tier is notionally autonomous over the management of its resources. Nevertheless, the relationship between them has not been without friction in the health sector. Constitutionally, health is on the concurrent legislative list, which allows the federal, state, and local governments to assume varying and potentially overlapping responsibilities for policy making, regulation, and provision. But the constitution's silence on the precise division of roles and responsibilities across the tiers makes for considerable ambiguity in the management of the health system.

In line with the Revised National Health Policy (FMOH, 2004), the federal government sets overall policy direction and standards and ensures quality and training. In addition, it implements nationwide sector programs such as immunization and also oversees dozens of federally funded tertiary health facilities across the country. The 36 states and the FCT undertake policy making and regulation as well as financial responsibility for the personnel and running costs and capital investment of their tertiary, secondary, and primary care departments and facilities. The 774 LGAs are responsible for primary health care delivery under the guidance and supervision of federal and state departments of primary health care. Alongside these public actors is an array of private voluntary and for-profit providers that operate at all levels of care and, together with the traditional care sector, are responsible for an estimated 80% of all services provided in the country (FMOH, 2007; DFID, 2000; Larbi et al, 2004).¹

At both the federal and sub-national levels, the governance responsibilities are further shared between the three branches of government, where the executive takes responsibility for policy formulation and implementation, the legislature provides oversight, representation, and laws, and the judiciary protects voice and ensures accountability. In practice these roles are problematic, as the state-level findings further confirm. While the federal government and the state governors wield substantial power in the health system, the other institutions remain relatively weak. Indeed, the legislature and the judiciary have been slow to assert themselves after prolonged suppression under military rule. Moreover, LGAs suffer from insufficient funding, mismanagement, and corruption. This state of affairs has not augured well for responsiveness and accountability in the health system.

The weakness of checks and balances within government naturally puts the spotlight on the roles of civil society organizations (CSOs), including professional organizations, specialized health NGOs and the media, in projecting and protecting citizens' voices and ensuring the responsiveness of services and the accountability of providers and policymakers. According to state level findings, CSOs have struggled in these roles, with only modest or mixed results at best. The findings are consistent with a recent review by the Canadian International Development Agency (CIDA) (Unom, 2003), which found that Nigerian CSOs and private media, while vibrant and essentially unshackled, lack the technical grasp, advocacy skills, and networking resources necessary for successful health reform advocacy and consumer protection activism. At any rate, health system reform seems to be lagging behind the attention to HIV

¹ This national average masks significant variations by region and state. As noted earlier, there are more private facilities in the south than in the north, and more public primary health care centers in the north than in the south. For example, while 72% of secondary health care facilities nationally are privately owned, their percentage is only 5% in the North East and 24% in the North West zones, compared with 90% in the South East and 80% in the South West zones (FMOH, 2007a: 29).

and AIDS, where relatively high levels of donor support have generated a more enthusiastic civil society response ²

Moreover, even the few capable CSOs with an interest in health systems reform often cannot collaborate with a government that is yet to adopt the ethos of responsiveness, as illustrated by the experience of the two faith-based federations, the Federation of Muslim Women Associations of Nigeria (FOMWAN) and Churches Health Association of Nigeria (CHAN). These two networks account for more than 60% of health care delivery in Nigeria (Nwaorgu and Vyas, 2004: 28) and yet cannot pull as much weight in the policy process as they would wish. ³

By and large, the findings indicate that Nigeria's history and complexity continue to hamper the commitment to rebuild the country's health system. Fostering collaboration and partnership and maintaining consistent standards and quality across the board has been particularly difficult. Further, decades of military misrule exacerbated the long-standing problems of mismanagement and corruption, further demoralizing providers and users. Despite recent reform efforts, the governance of the system is weak overall. It is hobbled by structural and institutional weaknesses coupled with capacity gaps that limit responsiveness of services and undermine the voice of citizens and the accountability of providers and policymakers. While new policies and systems continue to be developed at the federal level, nationwide implementation and stakeholder buy-in seems to lag behind.. The state-level findings show only modest and mixed progress alongside several aspects of continuing weaknesses. Against that backdrop, it is no surprise that public participation and confidence in the health system appears to be low. A clear message from the findings is that substantive reform is required to rebuild trust between users, providers, and policymakers.

f. Pharmaceutical management

Access to essential medicines is not only a human right, but also a critical component for achieving the MDGs. According to the WHO World Medicines Situation (WHO, 2004), Nigeria spends 18% of its total health expenditure on pharmaceuticals, a figure that is lower than both its sub-Saharan Africa and low-income group peers (both with an average of 27% of total health expenditure).

In recent years, the federal government of Nigeria, in partnership with state and local governments and development partners in health, has made several efforts to strengthen programs for the delivery of priority health interventions, including the pharmaceutical management of medicines and other commodities. Despite these efforts, studies have shown that the Nigerian system continues to be challenged by poor availability, high cost, and irrational use of essential medicines in the pharmaceutical sector. Additionally, these efforts are impaired by a lack of information about, and collaboration with, the private sector.

Figure 3 provides an overview of the pharmaceutical organizational structure in Nigeria. The different components of the system are discussed in this section. (See Annex)

The federal government has the mandate to establish laws and regulations that are applied at federal, state, and local government levels. The Pharmacist Council of Nigeria (PCN), which is mandated to regulate all pharmacists and non-pharmacists involved in the sale and distribution of drugs, has revised

² Counting only those affiliated with the umbrella body Civil Society HIV/AIDS Network [CISHAN], there are at least 3,000 CSOs identifying themselves as interested in HIV and AIDS (Unom, 2003: 71).

³ CHAN's eight requests during a high-level advocacy visit to the minister were recognized by the minister, who emphasized the critical role of CHAN in helping to realize the vision for the health sector. See press release, "Launch of CHAN advocacy visit," on the CHAN Web site, www.channigeria.org.

and updated a compendium of all Nigerian drug laws. The PCN is also charged with the registration of all premises where drugs are sold and distributed. The PCN liaises with the SMOHs' Departments of Pharmaceutical Services (DPS), which are responsible for informing the formulation of drug policies and their implementation on the ground. However, both the interpretation and implementation of policies tend to vary widely across, as well as within, zones.

While the importance of the established policy framework at the federal and state levels must be noted, there are several challenges that need to be addressed in order to achieve the objectives of the National Drug Policy of 2005. The official objectives of the National Drug Policy (2005) include:

- i. to ensure efficient and effective drug management in the public and private sectors.
- ii. to ensure access to safe , effective , affordable and good quality drugs at all levels of health care on the basis of health needs;
- iii. to promote the rational use of drugs by prescribers, dispensers and consumers;
- iv. to increase local drug manufacture/production and promote export;
- v. to ensure that all drugs in the national drug distribution system are safe, efficacious, effective and of good quality;
- vi. to strengthen administrative , legislative and regulatory controls of the importation, manufacture, procurement, storage, distribution, supply, sale and use of drugs;
- vii. to promote research on herbal remedies and integrate those found to be safe and efficacious into the health care system;
- viii. to promote pharmaceutical research and development of raw materials for the production, compounding and formulation of pharmaceutical products, as well as operational research for the effective implementation of the National Drug Policy and
- ix. to enlist government commitment at all levels for for achievement ot the goals and objectives of the National Drug Policy.

To begin with, at present there are about 13,500 pharmacists in Nigeria. However, their distribution across the country is uneven. Since they are mainly located in urban areas, the vast majority of the populace continues to patronize PMVs and alternative practitioners. Drug storage facilities exist at the federal and state levels though there is a need to upgrade and equip them with modern technology for effective handling and distribution of drugs to the primary facilities at the rural settings.

Additionally, because of public health system weaknesses, only 38% of Nigerians reported to have used the public sector for pharmaceutical services (FMOH, 2002). Others have relied on PMVs and private health clinics. Both geographic and economic access to essential medicines remains elusive in Nigeria. The 2002 baseline assessment of the pharmaceutical sector in Nigeria showed that 54% of key medicines were not available at public health facilities. Furthermore, reports show that medicines prices are unaffordable to majority of Nigerians and pharmaceutical costs are generally paid out of pocket. Poly-pharmacy continues to be a severe issue in Nigeria, with almost five drugs prescribed on average per prescription (FMOH, 2002).

The issue of fake drugs also continues to plague the Nigerian system. The National Agency for Food and Drug Administration and Control (NAFDAC) has been at the forefront of activities designed to ensure

that all medicines used in Nigeria are safe, efficacious, and of good quality. NAFDAC has made significant progress on this front in recent years. For example, in 2001 68% of drugs were not registered with NAFDAC. By 2004, that figure was reduced to 13% indicating a significant reduction in the number of counterfeit drugs in the country. In 2005 NAFDAC also found that the 84 pharmaceutical manufacturing companies in Nigeria produced only 30% of the country's drug requirements, with the rest being imported mostly from India and China. By 2008, the number of local manufacturers increased to 150. Despite the increase in manufacturers, the pharmaceutical sector did not meet the goal set by the National Drug Policy to ensure that 75% of the country's drug needs are met by local production.

In its effort to make essential drugs accessible and affordable, the federal government of Nigeria has continued to support an essential drug program. The fourth edition of Nigerian Essential Drug List (EDL), with 391 drugs, was published in 2003 with about 50,000 copies distributed to all health facilities in Nigeria. Public procurement is meant to be limited to the EDL. Yet, pharmaceutical management in Nigeria continues to show that selection is neither standardized nor based on the National EDL. For example in the just conducted HSA survey, it was shown that the respondents provided no answer on the existence of Standard Operating Procedures (SOPs) for procurement. Ogun did not know, and Osun responded negatively. Also in North Central zone, Nassarawa did not report to have a procurement committee. The respondents provided no answer on the existence of Standard Operating Procedures (SOPs) for procurement. Kogi did not know, and Nassarawa responded negatively which means that there is no mandatory standardized format to be followed across all the states for drug procurement.

2. PURPOSE AND OBJECTIVES

The need for strengthening health systems has been recognized as an essential building block for overall health sector development. According to the World Health organization (WHO), good health systems can deliver effective, safe, quality health services with a minimum waste of resources. As HIV/AIDS, TB, and malaria interventions are scaled up, it is vital to understand the state of the health systems in which these services are being delivered (WHO, 2005). Strengthening any health system requires a thorough understanding of its unique strengths and weaknesses.

The purpose of this assessment is to provide empirical evidence to health systems practitioners, policymakers, donors, program managers, and other stakeholders on the state of the Nigerian health system. The assessment focuses mainly on the public sector of the health system, but includes some private sector data as well. Specific objectives of the assessment included (1) identification of critical health systems strengths and weaknesses, (2) identification of emerging issues and opportunities in the health sector, and (3) providing guidance on future directions for health systems strengthening interventions.

3. METHODOLOGY

The methodological approach used in assessing the national health system in Nigeria is based on the Health Systems Assessment Approach that was developed by Abt Associates Health Systems 20/20 project in collaboration with Rational Pharmaceutical Management under the Management

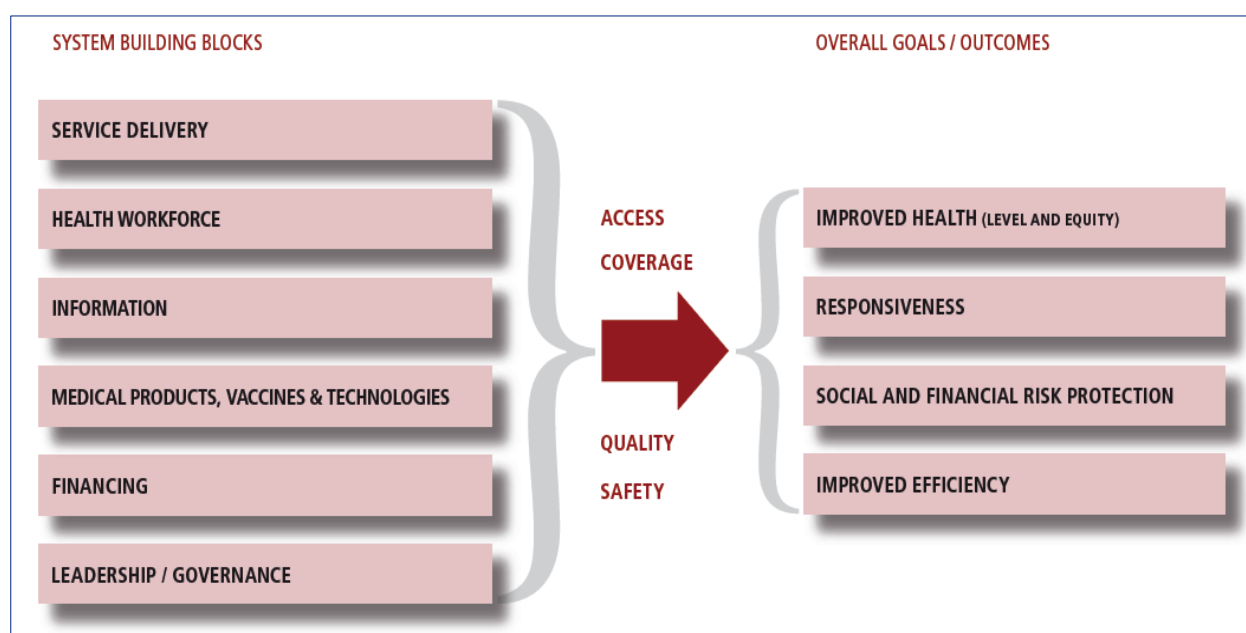
Sciences for Health and the Quality Assurance Project.. This assessment is the most recent comprehensive review of the entire health system drawing on primary data collection as well as on the wealth of existing studies and knowledge about the trends and challenges in Nigeria.

Six Components of Health Systems:

- **Human resources for Health (HRH):** covers systematic workforce planning, HRH policies and regulation, performance management, training/education, and incentives.
- **Health financing:** examines revenue collection, the pooling and allocation of health funds, and purchasing and provider payments.
- **Health service delivery:** examines service delivery outputs and outcomes, the availability, access, utilization, and organization of service delivery, and quality assurance of healthcare and community participation in service delivery.
- **Health information systems:** reviews the current operational HIS components, the resources, policies, and regulations supporting the HIS, data availability, collection, and quality, and analysis and use of health information for health systems management and policy making.
- **Governance:** addresses the capacity of the health system in health system responsiveness, social participation, technical oversight, service delivery, information reporting and lobbying, compact, directives, oversight and resources, coordination, and stability.
- **Pharmaceutical management:** evaluates the health system's pharmaceutical policy, laws, regulations, selection of pharmaceuticals, procurement, storage and distribution, appropriate use and availability of pharmaceuticals; access to quality pharmaceutical products and services and financing mechanisms for pharmaceuticals.

These components are embedded in a broader framework that links the health systems components to the health systems performance and health outcomes. This framework, developed by WHO, has been universally accepted and applied in many low resource countries.

FIGURE 4: WORLD HEALTH ORGANIZATION. EVERYBODY'S BUSINESS: STRENGTHENING HEALTH SYSTEMS TO IMPROVE HEALTH OUTCOMES—WHO'S FRAMEWORK FOR ACTION. GENEVA: WHO, 2007, PAGE 3.



The assessment was conducted in July 2008 by a local and international research team. The team applied five interrelated steps to conduct the health system assessment (HSA).

- **Step I Stakeholders consensus building:** The research team built consensus on the scope, methodological approach, expected product and the period of the assessment. State Health Commissioners and HMIS officers from all 37 states and key development partners were invited to participate in a high-level consensus building so that the findings would more fully represent the diversity of strengths and challenges in the Nigerian health system.
- **Step II Data collection workshop:** Following the consensus building workshop, the HMIS officers participated in a three-day data collection workshop. At the workshop, participants presented the data from their states to the HSA assessment team. In addition, the HSA team conducted group interviews by zone to review and collect additional data on qualitative indicators across all six health system components. Before the conclusion of the workshop, the HSA team discussed key issues and questions with the HMIS officers and identified additional data required to complete each health system component. The HMIS officers agreed to send revised and updated components, including supporting documentation, to the HSA team within two weeks.

The following table provides a breakdown of the 32 states plus the FCT that participated in this data collection exercise.

TABLE 2:

Zone	North Central	North East	North West	South East	South South	South West
States Data Collected From	Plateau Benue Nasarawa Kogi Niger FCT	Adamawa Gombe Borno Bauchi Yobe	Jigawa Kaduna Katsina Zamfara Sokoto	Ebonyi Anambra Enugu Imo	Bayelsa Cross River Akwa Ibom Rivers Delta Edo	Lagos Oyo Osun Ogun Ekiti Ondo
States With Data Not Available	Kwara	Taraba	Kano Kebbi	Abia*		

*A representative from Abia state attended the last two days of the workshop and provided data on governance and human resources.

- **Step III Data validation:** Workshop participants returned to their states, completed further data collection on missing variables, validated the credibility of certain indicators, and then sent the data to the research team.
- **Step IV Document review:** Published and unpublished documents relevant to the health system were reviewed to inform the interpretation of quantitative and qualitative data.
- **Step V: Data analysis:** The quantitative data collected were analyzed by zone for each health system component. The zone-specific analysis focused on trends and disparities among states within each zone. Patterns in findings across zones were then aggregated to identify strengths, weaknesses and new opportunities for health systems interventions.

Strengths and limitations of the HSA

In comparison to previous health systems assessments, this activity stands out for several reasons. First, the number of states included in the assessment is very large - 32 states as well as the Federal Capital Territory out of Nigeria's 37 states. This sample allows for a comprehensive, nationally representative review of the health system – a valuable contribution given Nigeria's diversity. Second, this assessment is the most recent comprehensive review of the Nigerian health system in its entirety and it assesses all components of the health system. Third, the assessment was conducted under a very participatory and transparent approach which allowed key stakeholders at the Federal and State levels of government as well as other development partners to contribute to the assessment process. Finally, recommendations drawn from the assessment are aimed at providing guidance to national and international partners on strengthening the health system.

As with any assessment of this nature, limitations clearly need to be spelled out. Conducting a comprehensive HSA in a country like Nigeria is resource intensive. The activity had limited resources which meant that the HSA team was not able to conduct field visits to validate all the reported data. However, the HSA team provided participants with the opportunity to send revised and updated data following the data collection workshop. As such, participants were requested to return to their states, confer with focal points in the areas of the six health system components, revise data as needed and

return the updated data to the HSA team for inclusion in the analysis. However, very few states provided updated data and the quality of the updated data received varies significantly. In addition, states were requested to provide supporting documentation for the quantitative and qualitative data provided in each health system component, but few states sent such information. As such, the HSA findings are supplemented by secondary data as necessary.

The challenges associated with the data collection process and validation efforts have particular implications for selected components (e.g. health financing). On account of this, the data presented should be interpreted with caution.

4. FINDINGS AND DISCUSSIONS

The findings are presented in the following six sections according to the health system components: HRH, financing, service delivery, HIS, governance, and pharmaceutical management. Each section summarizes the national level information followed by detailed findings across the zonal and state levels. Information for each zone is also presented as 'Individual Zonal Summaries' for each of the six zones (North East, North Central, North West, South East, South West and South South in the annexed sections).

a. Human resources

HRH is one of the six pillars of the health system. This section presents 8 major findings on three HRH key elements, namely (1) HRH planning, (2) HRH policies, and (3) performance management in place for HRH.

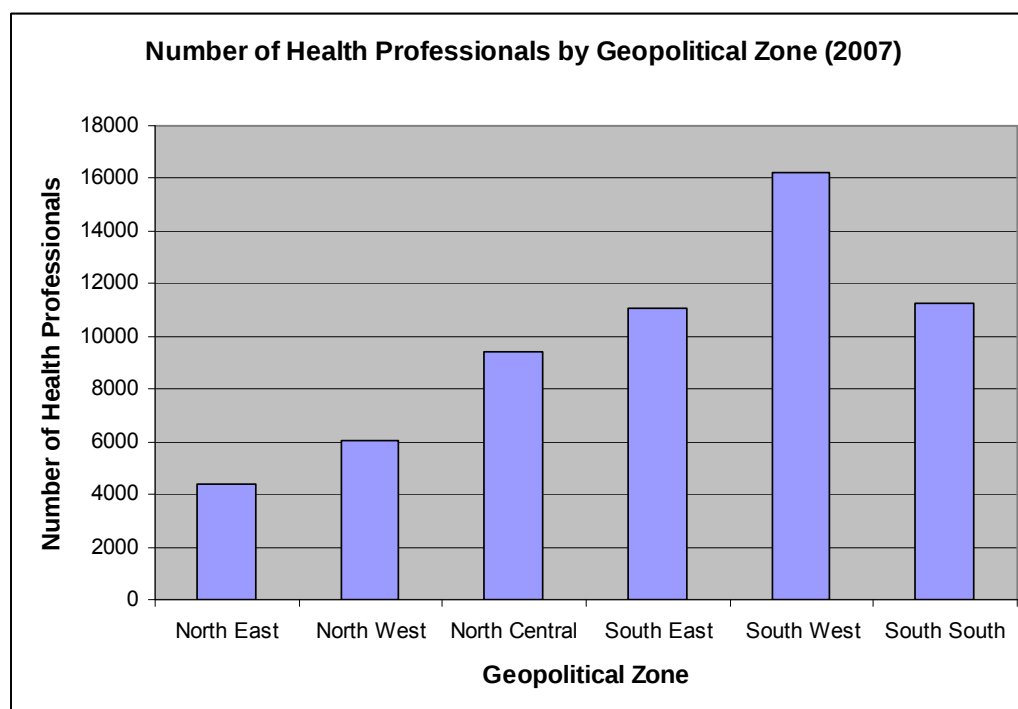
First, data from the states indicate that 84.4% of the respondents acknowledged the existence of a health deployment strategy at both national and state levels. It is interesting to note that although the majority of states that participated in this assessment reported that they have health deployment strategies in place, significant HRH distribution imbalances persist across all the zones. As expected, HMIS officers reported that rural areas are systematically under-resourced compared with urban areas, even in cases where the majority of the state population resides in rural areas (as is the case in the central and northern parts of the country).

Second, there are disparities in the distribution of health workers between the six geo-political zones. The number of health workers, as reported by the Federal Ministry of Health, 2007 ranges from 4,414 in the North East Zone and 16,249 in the South West Zone . Health Workers included in this data set include doctors, nurses and midwives, medical laboratory scientists and pharmacists.

TABLE 3: NUMBER OF HEALTH PROFESSIONALS BY CADRE AND GEOPOLITICAL ZONE
(FMOH, 2007)

Zone	Doctors	Nurses and Midwives	Medical Laboratory Scientists	Pharmacists	Total
North East	675	3,398	96	245	4,414
North West	1,388	3,941	201	502	6,032
North Central	1,841	5,778	434	1,342	9,395
South East	3,210	4,914	2,110	841	11,075
South West	7,300	4,487	1,603	2,859	16,249
South South	2,168	7,097	1,281	743	11,289
Total	16,582	22,518	5,725	6,532	58,454

FIGURE 5: NUMBER OF HEALTH PROFESSIONALS BY GEOPOLITICAL ZONE (FMOH, 2007)



Third, researchers looked at the existence of a functioning Human Resources Information System (HRIS) that tracks HRH categories, total stock, distributions, management, development, and other related activities. According to the data, 90.9% of the respondents suggested that this system exists at the national level but there was no information available about the degree to which the system is actually utilized. Similarly, at the zonal level an HRIS system exists in all states in the North West, South East, South West, and South South zones. However, respondents did not have information on the scope, timeliness, quality, and use of HRH data in these zones.

Fourth, all states participating in the study reported that registration, certification, or licensing is required for all the cadres of staff across zones. With the exception of the Yobe and Bauchi states, these requirements are monitored and enforced when public sector health professionals are hired and are also required for the establishment of private practices. Although all states except Adamawa reported that periodic re-registration requirements are in place, no data were available to verify the extent to which these policies are enforced. This is because the supervision of these requirements, especially for the private sector, is weak throughout the country (with the exception of Lagos State).

Fifth, respondents indicated that salary structures for health personnel, based on the national and state civil service scales, are available for all states except for Nasarawa, Abia, and Cross River states. Overall, respondents reported that salaries are paid on time in all states except Plateau (North Central zone) and in full in all states except for Kogi (North Central zone) and Oyo (South West zone).

Sixth, given the importance of HRH in service delivery, it is surprising to see that only 34.4% of the health expenditure at the national level is devoted to health personnel. The assessment revealed significant variation in the percentage of state government health expenditure devoted to health personnel. For states reporting data, the percentages ranged from 12% (Kogi) to 75% (Benue) in the North Central zone, 31% (Sokoto) to 55% (Kaduna) in the North West zone, and 4% (Edo) to 60%

(Akwa Ibom) in the South South zone. No data were available from the North East, South West and South East zones.

Seventh, job descriptions are available for health workers at the national level. About 79% of the respondents believe that job descriptions are updated regularly while 90.9% hold the view that job descriptions are shared with employees. Respondents across all zones reported that job descriptions are available for health workers and overall these were updated regularly (with the exception of the North Central zone). In addition, researchers were informed that job descriptions are shared with employees across all states with the exception of two states in the North Central zone and one state in the South West zone. In addition to availability of job descriptions, researchers reviewed the existence of performance appraisal processes. Data indicates that four of the six zones have formal mechanisms for individual performance planning and review

Finally, integrated supervision actually planned and conducted at the national level varies between 50% and 80%. According to the data, integrated supervision is weak in states in the North Central, North East, and South South zones. Integrated supervision policies are in place in the North West, South East, and South West zones. HMIS officers reported that the range of supervision visits planned and actually conducted varies between 20% and 90%.

b. Health financing

The financing system in Nigeria is multi-source including the federal and state governments, social insurance, individual out-of-pocket payments and others. This component sought to assess how resources flow within the health system across three topical areas: revenue collection, including the amount and sources of financial resources; pooling and allocation of financial resources; and purchasing and provider payments.

Revenue collection: The overarching finding related to revenue collection in Nigeria is that there is a lack of data (both quantity and quality) on health expenditures at the national and state level. The available data are, for the most part, based on approved government budgets, and thus do not necessarily represent actual health expenditures and reflect only the government portion of health financing. In the absence of institutionalized resource tracking efforts, including national- and state-level health accounts, data are lacking at the national and state levels on sources of financing outside the government, including households, donors, and other private sources. Data on total health expenditure as defined by National Health Accounts are also largely unavailable.

Several factors contribute to the lack of health expenditure data. First, the collation and documentation of expenditure data resides in multiple agencies including the Ministry of Finance, State Planning Commissions, and sometimes the Office of the Accountant General. This variability in the physical location of documentation makes it difficult to adequately capture expenditure data. In addition, the structure of budget templates and the existence of several channels of budgetary resources for disease-specific interventions also complicate efforts to estimate the government's share of expenditure.

From the data that were reported, it is clear that relative to its high burden of disease and large population, health financing levels in Nigeria remain low, both on a per capita basis and as a share of state government budgets. Significant variation also does exist across states. However, even in the states with significant donor presence, such as those in the North West zone (i.e., Jigawa and Kaduna, in particular) total health expenditure per capita is less than US\$ 4.00.

As noted above, without validated data, it is difficult to assess whether these variations are spurious and whether the data reflect actual expenditures or approved budgets. Data on financing for HIV/AIDS,

which was of particular interest for this assessment, is largely unavailable. While at least one state in each zone was able to provide information on government spending on HIV/AIDS as a share of total health expenditure, only 13 states of the 32 represented could provide the data, and these states are spread across the zones. Again, in the absence of actual total health expenditure data, it is likely that the information provided represents government budget for HIV/AIDS as a share of total government budget for health. The absence of information about how and on what services funds for health are actually spent on challenges efforts to allocate resources equitably and efficiently, target the poor with interventions designed to provide financial protection from the costs of catastrophic illness, and address zonal or demographic disparities in financial barriers to access.

Pooling and allocation of financial resources-government budget formulation and allocation: At the federal level, the budgetary allocations highlight systematic under-funding of non-salary recurrent operating costs. This is also observed in the states. A disproportionate amount of the health budget is allocated to the SMOH, which is the policy arm of the health sector at the state level, leaving very insignificant budgets beyond salaries to support service delivery functions of the Hospitals Management Boards (HMB). Indeed, recurrent expenditure are largely taken up by salaries, with most states estimating that well over 75 percent of their recurrent budget is spent on salaries.

The process of MOH budget formulation is nearly identical across states in Nigeria. The process is initiated with a request from the Department of Planning in four of the six zones, the Ministry of Budget and Planning in states in the North West Zone and the Planning Commission in states in the South East zone. Individual departments draft their budget requests for the coming year, organized around line items or sub-heads, and submit them to the requesting authority. Upon approval by the original requesting authority, the budget is submitted through the review and approval process to the relevant authorities in the state (see Annexes for details on differences across the zones.)

Budgeting and financing for primary care rests largely with local governments. However, there are no reported planning or budgeting cycles in local government primary health care coordinating units. Health budgets and expenditure at local government level are thus difficult to estimate and track.

Across the states, resource allocation in the health sector is largely based on resource ceilings imposed by the Ministry of Finance.⁴ Ceilings are often informed by the size of the overall resource envelope in the state, priorities of the leadership of the state government, and, in some cases, the level of expenditure reported by the sector in the preceding year. All of these influences give very minimal consideration for population health needs or the requirements of service delivery/policy units to effectively deliver health care. As such, they are largely unable to reflect programming, infrastructure, and other needs at both policy levels in the MOH and service delivery functions in HMBs.

Budget execution remains problematic throughout the country, resulting from weak planning capacity and a tendency for health programming at the state and local levels to be driven by federally mandated health initiatives and priority programs. Analysis of the discordance between the budget line items provided by the Ministry of Finance and the programming heads of Health Plans suggests that allocative efficiency is not optimal. For example, when Ekiti and Ondo worked with their Ministries of Finance to reallocate between budgetary line items it improved the internal allocative efficiency of their funds.

⁴ However, states in the North East zone, as well as Lagos, Ondo, and Oyo in the South West zone reported there being needs-based budgeting processes.

Purchasing and provider payment: In all of the zones, most if not all of the states represented have a national health insurance scheme that covers civil servants. However, most states did not know how these schemes were funded.

Deferral and exemption schemes and waivers are highly prevalent across the states. Currently, these schemes are targeted primarily toward pregnant women and children under five. In some states, the poor, elderly, indigent, and accident victims are also covered. Services covered include, at a minimum, malaria treatment, immunizations, and TB DOTS. Coverage for ARVs is not universal across the zones. However, in the absence of a strategy for sustainably financing these health programs, states such as Kaduna and Ondo are finding it necessary to scale back the benefits offered under these schemes. The remainder of the population, with the exception of civil servants, has sparse access to insurance-based risk pooling mechanisms.

Contracting with private providers and incentive and performance-based financing schemes are virtually non-existent. Deviations from this norm are noted in the detailed description of purchasing and provider payment in the zonal annexes.

The absence of risk-pooling options for the general population (outside of civil servants) in most states suggests that households are bearing the majority of the burden of health financing. Anambra was the only state that reported having a community-based health insurance scheme. Thus, in general, payment for health care service remains regressive, largely based on payment on point of contact, i.e., user fees or internally generated revenue.

Facility-level financial management is largely driven by revolving funds established to manage these various user fees. At the facility level, up to 14 of such revolving funds may exist, each independently managed in order to 'protect' the revolving nature of the resources collected within unclear channels of coordination with the overall capacity of the facility to manage its financial resources. Resource tracking efforts, such as state-level health accounts like those undertaken in Ondo and Ekiti, would be a valuable step to help state government policymakers allocate resources more efficiently and equitably. This has implications for health budgeting and expenditure tracking systems and should be considered in a cross-cutting context.

c. Service delivery

Providing services is arguably the most fundamental function of any health system. Using data collected through the health systems assessment process, the service delivery section of this assessment examines the capacity of the Nigeria health system to deliver HIV-related and general health services that are of good quality and accessible to the Nigerian population.

General health service availability: The average number of hospital beds in the public sector is 9.2 per 10,000 people (FMOH, 2007b), which is considerably more than the average number of beds in sub-Saharan Africa overall (about 5.6). Although the availability of public sector beds is not a perfect measure of capacity to deliver hospital services, it is indicative of a potential to do so.

However, there are regional differences in hospital bed availability across the country. This ranges from 4.3 to 12.1 beds across the 6 geopolitical zones, with a national average of 9.2 beds per 10,000 people. Looking at this from a zonal perspective, the North West zone trails the rest of the country with an average of 4.3 public sector hospital beds for every 10,000 people. However, almost every zone has at least 1 state with an average of under 4 public sector hospital beds per 10,000 population as illustrated by Benue, Jigawa, Kaduna, Enugu, Bayelsa and Lagos states. Intra-zone ranges also clearly support this point.

A different picture emerges from examining the number of primary care facilities in the public sector. Nigeria has only 1.6 public primary care facilities per 10,000 people (FMOH, 2007b). The overall low levels of this ratio suggest that this is a concern that cuts across all states and zones. Ironically, the state with the smallest number of primary care facilities per 10,000 people is Lagos. However, this may well be a reflection of private sector dominance in Lagos state, which these ratios do not capture.

The availability of VCT, PMTCT, and ART services in public sector facilities is very limited, with only about 1% of all public sector facilities reporting that they provide any PMTCT or ART services and 2.2% reporting any VCT services (FMOH, 2007b). There are some differences between and within zones but the low levels of HIV/AIDS service provision constitutes a cause for concern for the country as a whole. However, HIV/AIDS service delivery in the northern states – especially the North West and North Central zone – merits greater attention since higher HIV prevalence will be accompanied by greater need for HIV-related services.

Laboratory services are critical support services for ART and PMTCT as well as for health service delivery in general. Slightly more than 6% of all public sector facilities reported having a laboratory. However, data on the availability of supplies or equipment were not available. Laboratory availability varies substantially across states, ranging from 0.5% in Delta state to 50.8% in Ogun state (FMOH, 2007b). The range of reported lab availability is wide within each zone, which suggests the importance of a state-centered perspective when making investments in this area.

TABLE 4: HEALTH SERVICE STATISTICS AT NATIONAL AND ZONAL LEVELS

Indicator	Zonal Averages						National Average	n*
	NC	NE	NW	SE	SS	SW		
Public sector hospital beds per 10,000 people	8.6	10.3	4.3	12.1	11.6	8.5	9.2	32
Public sector primary care facilities per 10,000 people	2.4	2.0	1.5	1.2	1.1	1.4	1.6	32
% of public sector facilities that currently offer VCT	3.4%	1.5%	1.8%	1.2%	4.1%	1.5%	2.2%	32
% of public sector facilities that currently offer PMTCT	1.0%	0.8%	0.5%	0.8%	1.8%	0.7%	0.9%	32
% of public sector facilities that currently offer ART	0.7%	0.4%	0.5%	0.9%	1.3%	0.7%	0.7%	32
% of public sector facilities that currently have a laboratory	4.2%	6.2%	6.6%	8.3%	1.8%	9.3%	6.1%	27

*Number of states reporting on this indicator

As mentioned previously, Nigeria has a large and heterogeneous private sector that includes for-profit, non-profit, and FBO providers. Regarding quality of care, the private sector includes high-quality providers with sophisticated technology at one end and informal sector providers who provide low-quality services at the other. As figures 6, 7, and 8 show, the private sector has already emerged as an important provider of HIV/ AIDS services. For example, close to 35%, 28%, and 24% of all VCT, PMTCT, and ART facilities are private. (Nigeria HIV/AIDS Service Provision Assessment 2008).

However, there are important zonal differences in the private sector share of HIV/AIDS providers. The private sector share of facilities providing VCT, PMTCT and ART is relatively limited in the North East and North West zones. The North Central, South East and South West zones, on the other hand, show a very substantial private sector presence. Close to or over half of all VCT and PMTCT facilities in the

South East and South West zones and about 40% in the North Central zone are in the private sector. In the case of ART, the private sector share is over 40% in the North Central zone and close to 30% in the South East and South West zones.

It is important to underscore the point that the overall low availability of HIV/ AIDS services makes expanding HIV/ AIDS service availability in the near-term urgent. To illustrate, there are a mere total of 682 (0.005) VCT facilities, 245 (0.002) PMTCT facilities and 181 (0.001) ART facilities for every 1,000 people in Nigeria. This suggests the importance of considering public-private partnerships as a means of rapidly expanding availability and access, especially in the North Central, South East and South West zones where the private sector already accounts for a large share of available HIV/ AIDS services. (Data Set in Annex I)

FIGURE 6

Public-private distribution of VCT facilities

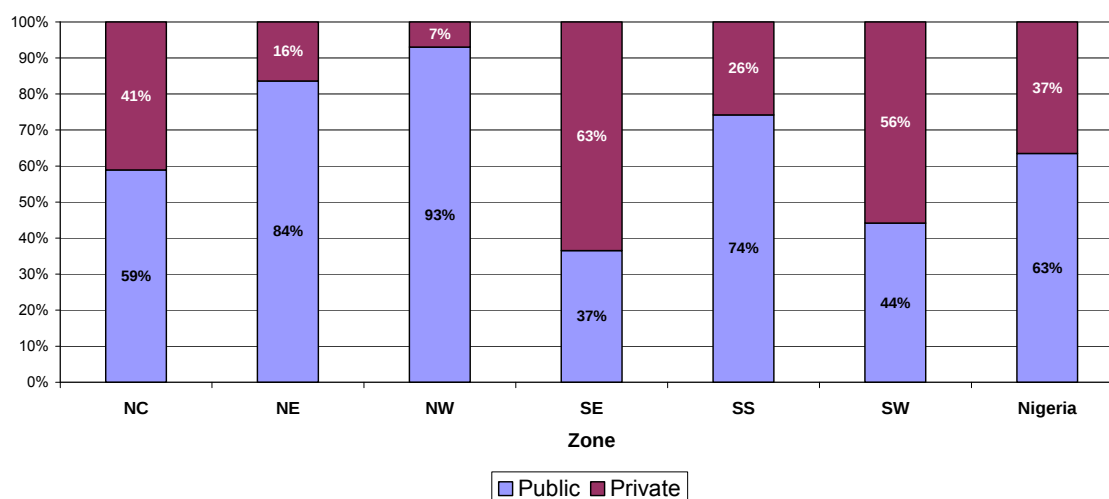


FIGURE 7

Public-private distribution of PMTCT facilities

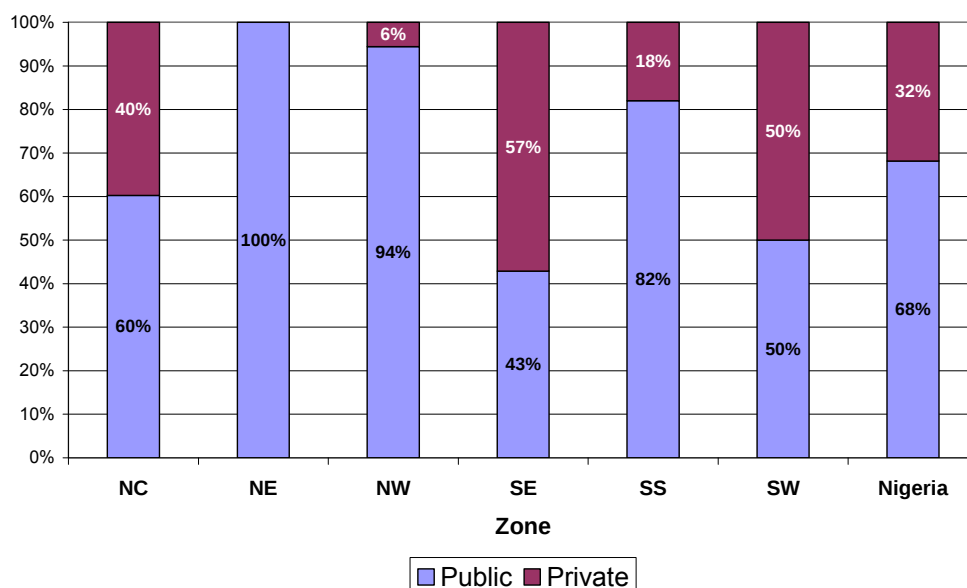
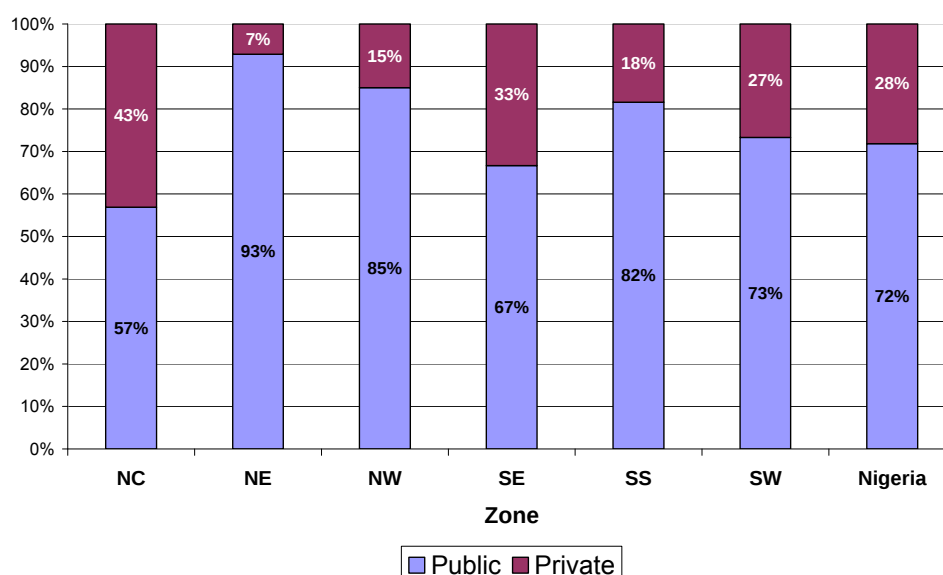


FIGURE 8**Public-private distribution of ART facilities****d. Health Information Systems**

This assessment did not intend to review, interpret, or analyze the value of health statistics produced in Nigeria but rather to assess the ability of the system to produce valid, reliable, timely and reasonably accurate information for decision makers. The outputs of this study will allow policymakers to better understand the capacity of the Nigerian HIS to “integrate data collection, processing, reporting, and use of information necessary for improving health service delivery” (Lippeveld, R Sauerborn, C Bodart, World Health Organization, 2000).

To do so, the HSA critically examined three elements: resources, policies, and regulation for HIS; data collection and quality; and use of health information.

Resources, policies, and regulation: This section aims to assess the availability of the financial and/or physical resources necessary to support HIS activities. Lack of, or under-investment in, HIS severely affects any country’s ability to effectively address health challenges. Data indicates that most states have limited budgets for HIS activities. It should be noted that, although budgetary allocations are consistent year after year, timely disbursement of funds is perceived as a challenge across all the states. For example, 100% of states in the south west zone report having adequate budgets for HIS, whereas 80% of states in the south-south zone do not provide budgetary allocations to support health information system activities. Kaduna, Jigawa and Sokoto in the NW zone provide budgets for both capital and recurrent HIS expenditures. A marked difference also exists between the type of donor support provided, and the availability of resources for HIS. All states that self-reported as exclusive recipients of HSDP support (HSDP as only donor supporting HIS) did not provide state resources for HIS. In contrast, the states that were recipients of PATHS I support supplemented donor assistance with state resources to support HIS activities. It should be noted that, although budgetary allocations are consistent year after year, timely disbursement of funds is perceived as a challenge by 75% of states.

The availability of recording forms and registers is a fundamental component of a HIS and are necessary for health personnel to record critical health data. All zones, with the exception of South West,

reported challenges with availability of forms and registers. Ebonyi state has experienced a complete stockout of forms and registers since January 2007. Shortages of forms were frequent in even in states receiving HSDP support (e.g. South-South zone). All zones, to varying degrees, had states that experienced shortages or stockouts of essential forms and supplies. In the best performing zone (South West) with respect to availability of supplies, 33% of states reported having experienced occasional shortages of essential supplies. A lack of clarity on the mandate for reproduction and distribution of registers and forms contributes to the non-availability of these essential supplies.

Basic ICT infrastructure (computers, telephones, access to email/Internet) is limited across the health sector. Telephones refer to both fixed line and GSM (mobile) phones. For the purposes of this assessment, personal devices, even when used for work purposes, do not qualify as available infrastructure. With the exception of Lagos, the only states with basic ICT infrastructure at the state and sub-state level are those that have received donor support, either through health system strengthening credits (HSDP), vertical programs (PEPFAR) or health system strengthening projects. Jigawa and Kaduna in the North West zone report having deployed infrastructure to the LGA level. Even where support was provided, the availability of ICT was compromised by poor infrastructure, particularly electricity. Frequent outages in limit the availability and compromise the lifespan of equipment. States in the South East zone reported loss of equipment due to frequent power surges. Few states have email or Internet connectivity available within SMOH offices. These services are most often procured from private vendors (cybercafés) within close range of SMOH premises. No SMOH reported having access to an official telephone (fixed or mobile), nor are official communication allowances (petty cash, scratch-cards) provided in any of the states. A very basic computer infrastructure (desktop computer and occasional laptop) is available in most SMOH offices. Technical and financial support for ICT (maintenance) is typically only available at SMOH level, except in Lagos.

All states have policies and laws mandating reporting by the public and private sector on national HIS data. However, all states assessed, with the exception of Lagos, reported challenges with private sector reporting. There is a widely held perception that routine reports could potentially be used for taxation purposes by fiscal authorities, and the private sector is therefore reluctant to provide service statistics. Selected donor supported states, including Enugu, Kaduna and Jigawa, have reported success in increasing reporting by the private sector. All others lack either mechanisms or capacity to enforce regulations on private sector reporting. Lagos state, in recent years, tied re-licensing (re-registration) of facilities to routine reporting, which significantly raised reporting compliance by private sector facilities. This best practice should be replicated in other states.

Data collection and quality: There is significant variation in the percentage of sites submitting routine health statistics reports among and within the zones. States that receive donor support have better data quality and higher reporting rates than those that do not (with a few exceptional). For example, Adamawa state leveraged a WHO reporting system (polio) to increase routine reporting to 75%. By using WHO infrastructure (motorbikes, data collectors) and by organizing refresher trainings for staff, the state was able to significantly increase its routine reporting rate from public facilities. The same scenario applies to the NW zone, with Jigawa and Kaduna reporting very high (75%) reporting rates, compared to 25% or less of facilities in other states within the same zone reporting on time. The lack of essential supplies (forms), insufficient staff, and data transmission challenges are cited as reasons for low reporting rates.

Weak supervision of private sector facilities, especially with respect to health information, is the main cause of poor reporting by the private health sector. In spite of low levels of routine reporting, facility registries (public and private) are available and updated on an annual basis for all states. Standards for data collection are specified in the national HMIS policy document. All states in attendance reported having a state-level HIS policy as per the national requirement for use in public facilities. Data were not

available on the level of use/application of the policy in private sector facilities. It should be noted that states have several tools to leverage to increase reporting rates. All private sector facilities are required to renew operating licenses on an annual basis. Lagos State has provided an example of this mandatory process, which is almost universally adhered to in country, could be leveraged to increase reporting by private sector facilities.

Reports on physical inventory (equipment, condition of buildings, vehicles) are unevenly required across the states. Given the presence of several vertical and parastatal programs, integrated commodity supply chain reports are not submitted to state or federal authorities. However, all HMIS officers reported being able to obtain supply chain data from partners upon request.

Data use: This section evaluates the resources available to analyze health information, the demand for health information on the part of decision makers, and the availability of information products. Several assessments and reports indicate that significant amounts of health information are collected, but little is known about how this information is used.

Nigeria has several institutions that train MROs and HROs, who are then deployed to primary and secondary health facilities. The Health Records Officers Board is the professional association that licenses this health worker cadre.

All states in attendance reported having an adequate, albeit insufficient number of personnel working on HIS issues at SMOH level. Kaduna, Jigawa and Lagos report having units with multiple staff dedicated to HIS activities at SMOH, in contrast to Bayelsa who has one HIS officer for the state. The situation differs markedly at sub-state level, with few states have an adequate cadre of HIS personnel. A limited number of states, including Enugu (SE), Jigawa (NW), Lagos (SW) have health record or medical record officers in 100% of public facilities and LGA's. Other states Delta (SS), Yobe and Gombe (NE) report having deployed M&E officers down to the LGA level. Although some states have managed to deploy personnel to the sub-state level, poor skills in data analysis prevents states from making maximum use of these resources at sub-state level. In most cases, the staff deployed serve as data collectors and collation agents, not as producers and users of data at their respective levels.

The use of data for decision-making purposes is a weakness across all states. Although data are frequently requested by policymakers, respondents indicated that it is typically used for diagnostic purposes to explain health problems and challenges, and not for informing planning frameworks (i.e., medium-term economic frameworks [MTEFs], long-term strategic plans, etc.). Three states (Kaduna-NW), Lagos (SW), and Enugu (SE) reported that demand for data was systematic from decision makers. All other respondents reported that although data is produced, demand typically remains ad hoc and driven by punctual imperatives (political needs, opportunities for donor funding, donor reporting) versus systematic use. Production of information products such as bulletins, statistical reports, and compendia is poor across the country. Indeed, Lagos is the only state that reported regularly producing and disseminating surveillance data via bulletins. Few states produce annual health data compendia that are available for public use. No state reported having adequate feedback mechanisms for health facilities (e.g., reports produced by the state comparing health facilities) and/or the general public (e.g., information on health performance across geographic areas).

e. Governance

This section provides an aggregate summary of the information gathered through group and key informant interviews. The information is arranged in the eight topical areas in the survey: responsiveness; voice: preference and aggregation; technical oversight; service delivery; information, reporting, and lobbying; compact, directives, oversight, and resources; coordination; and stability

Responsiveness: At the national level, the National Health Council (NHC) and other policy consultation forums meet regularly.⁵ However, they are often undermined by lack of high-level political support for their recommendations. The National, State, and Local Economic Empowerment and Development Strategy processes provide the overall policy framework for the development of health policies. At the same time, it is important to note that the National Planning Commission's 2006 benchmarking exercise established that inputs from consultations were rarely considered in the development of these policy frameworks (National Planning Commission, 2007: 8).

Institutional arrangements for channeling advocacy and participation are generally weak across the board, and more so at state level, where State Councils on Health (SCHs) are often either too irregular or too listless to have a substantial impact on health policy. In addition to the SCHs, there are People's Forums (e.g., Niger), PPP Forums (Bauchi, Borno, and Yobe), and International Partners' Forums (Borno and Yobe), all of which hold meetings to varying degrees of regularity.

There is no single consumer protection movement in any of the states, although members of the public and concerned stakeholders do occasionally engage with policymakers through the aforementioned forums and also through the VDCs, Ward Development Committees, and Miyatti Allah (a nomads' advocacy movement) as needs and opportunities arise. The Civil Society HIV/AIDS Network (CISHAN) is also very effective in this regard in Adamawa. Other than Health Reform Foundation of Nigeria (HERFON), there are few organizations that are informed and capable enough to link members of the public with providers and policymakers or engage with public officials in the establishment of policies, plans, and budgets for health services.⁶ There are therefore limited opportunities and incentives for service providers and policymakers to respond to the needs, concerns, and suggestions of users and members of the public.

Voice: There are no functional formal mechanisms for aggregating and presenting the concerns and preferences of ordinary citizens, experts and local communities to policy makers. Most of the mechanisms are informal or ad-hoc and in any case do not guarantee citizen access or compel officials to listen or respond. The few formal mechanisms that exist, such as suggestion boxes at facility level, Servicom (named for the office set up by the Federal Government to promote a service compact between service providers users in all sectors and at all levels), radio phone-ins, ad-hoc visits by officials and legislative hearings are either too ineffective or unfocused and in any case apparently not fully trusted. The result is that the voice gap remains wide at all levels of the system, although there are indications that the situation might be slowly changing.

Ward health systems committees⁷ were introduced recently but are yet to gain users confidence as reliable outlets for expressing and conveying voice. Local civil society and media are vibrant and largely unencumbered, as the overview section makes clear, but their interest in health system reform tends to be fleeting and must be actively cultivated (as the state-level findings indicate). Thus, overall, there are no robust formal mechanisms for harnessing and presenting the concerns and preferences of citizens,

⁵ Most of the national policy documents cited in this report have been developed in consultation with the states, but these consultations are usually among technocrats and not always with the highest levels of political authority which, especially at sub-national level, is critical for buy-in.

⁶ Interview with Hajia Bilkisu, Board Member, HERFON.

⁷ Wards are the political units into which the LGAs are further split. They are represented by elected councilors, who make up the legislative arm of the LGAs.

experts, and local communities to policymakers and, even where a mechanism does exist, it does not always represent the voices of all stakeholders.⁸

Technical oversight: All states adopt the standards set by the professional councils to regulate technical standards, protocols, and codes of conduct in regard to medical practice, unfair pricing, and discrimination. These include the Medical and Dental Council of Nigeria, PCN, Nurses and Midwives Council, Health Officers' Registration Board, and the Dental Technologists' Board as well as NAFDAC (the drug regulatory agency). The state-based offices of these federal bodies monitor compliance and enforcement. States, LGAs, communities, and CSOs can feed into these standards, protocols, and codes through their SCHs' contributions during the NCH, but the respondents reported that there was no evidence of such participation or input in their states.

Though these protocols, standards, and codes are sophisticated, yet state-level regulatory and civil society monitoring and oversight are weak. A National Policy on Health Research (FMOH, 2005a) has been developed but is yet to be adopted nationwide. Consumer protection advocacy is non-existent at any level, and users either do not know what the standards are or have no means of holding providers to account for adhering to them.

Service delivery: The 11-year trend data from the World Bank Institute's Worldwide Governance Indicators show that government effectiveness and service delivery have been poor in Nigeria, peaking at the 20th percentile rank in 2005 and never attaining a positive score on the -0.25 to +0.25 scale (World Bank Institute, 2008). The review confirmed that though structures are in place, there are no clearly outlined mechanisms to hold service providers accountable for their performance. For example, States in the South East zone reported a range of governance mechanisms for financing and incentivizing improvements in service delivery (e.g., performance assessments by the Local Government Service Commission in Anambra, joint monitoring missions to both government and private facilities in Abia). However, there is no information on the frequency of their use, which hints at the fact that health services are not organized or financed in ways that encourage providers to improve performance based on feedback from their clients. Moreover, overall there are no reliable mechanisms for measuring performance, conveying the views of service users to providers, or compelling providers to listen and respond to feedback.

Information, reporting, and lobbying: Across all zones, information on resource allocation and utilization is not publicly available at any level of the service. Accountability in Nigeria's public service is rated as generally weak at all levels, according to the Africa Peer Review Mechanism's *Country Self-Assessment* report.

The report cited the perception that the public service institutions remain oversized, inefficient, unaccountable, poorly equipped and poorly paid (Africa Peer Review Mechanism, 2007). Moreover, while there is press freedom, reporters are poorly paid and often vulnerable to bribery and unethical behavior.

Nigeria's budget and financial management started improving in 2004 after successive 20th percentile rankings on the World Bank's Country Performance and Institutional Analysis in 2002 and 2003 but it has not significantly gone up since then. Indeed, the World Bank's Public Expenditure Management and Fiscal Accountability Review (PEMFAR) in 2007 found that upwards of 40% of non-interest spending at

⁸ Most of the mechanisms are informal or ad hoc and in any case do not guarantee citizen access or compel officials to listen or respond. The qualified exception here is in Niger, where a Health, Economic and Social Council recently fielded questions from users in the course of its evaluation field mission.

the federal level was not in the regular budget (World Bank, 2007: *Volume 1: Main Report*, p 5). The PEMFAR review also reported that the quality and efficiency of budgetary expenditure at sector and sub-national levels was low, a finding that was consistent with the aforementioned 2006 SEEDS benchmarking results and the current health system review. The report also noted that increased revenue allocations to the state have not been matched by improvements in the quality of planning and expenditure.

The SEEDS report also suggests that many of the public resource allocation and accountability mechanisms reported here by the states are ineffective. For example, the benchmarking analysis showed that only five states had evidence of coherent fiscal strategy documents, and no state had a three-year MTEF, while up to 20 states had extra-budgetary expenditures in excess of 10% of the total expenditure. Only one state submitted its budget to the State House of Assembly on time and only six states could show that their state assemblies properly reviewed their appropriation bills before passing them. Moreover, only six states could show evidence of monthly or half-yearly disbursement reports (and of these, only four were on time). In more than 75% of the states, reports of the state accounts were not submitted to the Auditor-General or to the state assembly on time, while only 13 state assemblies had reviewed their states' audited accounts. In this wider context of sub-optimal public financial management, it is not difficult to see why the tracking and public reporting of resource utilization remains poor.

There has been progress in availability of care mapping and quality of care monitoring, thanks in part to donor support. However, for the most part, information on the quality and cost of care is still not publicly available or accessible at any level. This makes it difficult for clients to make informed choices or for stakeholders to effectively lobby for changes. Furthermore, professional associations largely focus their lobbying efforts on members' interests, which may not necessarily coincide with those of the public. Additionally, there is no evidence that service providers use evidence on program results, patient satisfaction, and other health-related information to lobby government officials for policy, program, and/or procedural changes. If and when they are adopted nationwide, the ward health system management committees are expected to assume crucial roles in strengthening user- and citizen-centered information reporting and lobbying.

Compliance, resource utilization and equity: All states have functioning systems for the accreditation and monitoring of hospitals and health facilities. As already noted, protocols, standards and codes of practice and certification procedures are centrally developed and disseminated to training centers and providers. Policies and guidelines have been developed with respect to integrated disease surveillance and response, blood and equipment management, traditional medicine, national HMIS, and PPPs, among others.

But compliance and monitoring are not rigorous, particularly at lower levels. This has more to do with the general weakness of Nigeria's public administration than any particular weakness in the health system. As already reported under the service delivery sub-section above, government effectiveness in terms of public services has remained poor in Nigeria, never attaining a positive score on the World Bank's -0.25 to +0.25 scale over the last eleven years.

The trend manifests at the sub-national level, where the findings indicate that mechanisms for effectively enforcing compliance are lacking. The SMOH committees, suggestion boxes, and legislative and public audit and ombudsman institutions responsible for oversight are apparently still not trusted enough by the public when it comes to challenging abuse or bias. Moreover, with the exception of states receiving sustained donor support (including Kano, Jigawa, and Kaduna in the North West, Ekiti in the South West, and Enugu in the South East) where promising reforms have been initiated to strengthen voice

and accountability (PATHS, n.d.), other states may not have the evidence they need to follow up on complaints.

Though the federal government has named health as one of the current administration's seven priorities, this has not resulted in higher resource allocations to the sector. At lower levels, resource allocation to the health sector generally remains a low political priority, as health services are not considered a vote-winner. The recent corruption scandal involving two sitting health ministers, the senate health committee chair, and senior FMOH staff shows the long road ahead in the push for accountability.

TABLE 5 : RECENT GOVERNMENT EXPENDITURES ON HEALTH

Indicator	2000	2005
General government expenditure on health as % of total expenditure on health	33.5	30.9
General government expenditure on health as % of total government expenditure	4.2	3.5
Per capita government expenditure on health at average exchange rate (US\$)	6.0	8.0
Total expenditure on health as % of GDP	4.3	3.9

Source: WHO Core Indicators for Nigeria (WHO, 2008)

To attract resources into the system, a model national policy on public-private collaboration has been prepared and is being adapted and tried in a few donor-supported states. But, as with many other national policies, it must await nationwide adoption in order to generate substantive results to inform national replication.

Coordination: Chapter 8 of the National Health Policy calls for increased private participation and inter-sector and cross-tier coordination continues to improve as PPPs begin to take hold at national and sub-national levels. Moreover, the effective coordination of multiple actors is among the seven strategic objectives of the FMOH's HSRP, with parallel objectives in various state health policies and sector reform programs.

This being said, coordination overall remains very much a work in progress. The links between state and non-state actors remain tenuous and at the state level often consist only of a regulatory relationship around the accreditation of private hospitals and facilities. Multi-sector coordination is still weak as the MOHs and health-related parastatals often get into each other's way. As such, fifty-one NCH meetings later, maintaining consistency and commitment across the tiers remains a challenge. Donor coordination also often falls through the cracks left by the lack of clarity in the roles of the SMOHs and other state ministries or departments charged with coordinating international assistance.

In the public realm, the states are protective of their restored autonomy⁹ and are not always on the same page with the center on policies and priorities. Occasionally this is attributable to political one-upmanship, but often it is because federally driven initiatives make unwelcome demands on state government resources or lack political buy-in at the highest levels of the state administration. Like the other tiers, the LGAs also receive guaranteed funding from the federation account. However, they have been operating under the frequently asphyxiating control of the states, which supply the senior personnel and approve the LGAs' budgets. This atmosphere of distrust and lack of confidence often undermines commitment to coordinated and harmonized action.

⁹ Under military rule, the states were mere appendages of the center.

Stability: Data on the 11-year trend from the World Bank Institute's (2008) Worldwide Governance Indicators shows that the outlook for political stability improved to a percentile rank of 20.2 (where higher values represent greater stability) at the onset of the democratic transition in 1998 but has since then been poor, with a percentile rank of 4.3 in 2007.

On the other hand, the aforementioned Bertelsmann Transformation Index 2008 (Bertelsmann, 2007) scores Nigeria's stability at a more positive 7 out of 10 (where higher values reflect better performance) but then describes the country as a "defective democracy" with continuing weaknesses in its political and social integration (5.3 out of 10), rule of law (5.5), clarity regarding the nation's existence as a state (6.0), political participation (6.5), and the stability of its democratic institutions (7.0). While much of the poor score relates to the high levels of violence in the Niger Delta and elsewhere in the country, the continuing instability in democratic institutions is highlighted by the fact that more than three-quarters of the current crop of federal and state legislators are in their first term, a development with obvious implications for policy continuity.

f. Pharmaceutical management

The following critical areas of pharmaceutical management were reviewed as part of the assessment: pharmaceutical policy, laws and regulations; selection of essential drugs; procurement; storage and distribution; appropriate use; availability; access to quality products and services; and drug financing.

Pharmaceutical policy, laws, and regulations: Pharmaceutical policies, laws, and regulations are well established at the federal level, as are mechanisms for licensing, inspection, and control of pharmacists, pharmacist technicians, PMVs, manufacturers, etc. Based on this assessment, it appears that all surveyed states are knowledgeable about the existence of these mechanisms.

However, states across all zones did not consistently identify the correct regulatory agency responsible for overseeing implementation. This suggests that although the mechanisms might be in place at the federal level, a disconnect continues to exist across all states regarding the on-the-ground implementation of policy and regulatory agency oversight. The situation is further complicated by the lack of sufficient and adequately trained and motivated HR to enforce existing drug laws, ensure compliance by practitioners, and to strengthen the drug distribution system in Nigeria. As a consequence, despite strong efforts from agencies like NAFDAC, fake and substandard drugs continue to be prevalent in Nigeria.

Furthermore, with the exception of a few states (e.g., Akwa Ibom, which has a DPS Task Force, and FCT and Niger, with pharmacovigilance forms for patients to fill out), respondents did not report utilizing systematic data collection regarding the safety and efficacy of marketed pharmaceutical products. Thus, few states consistently ensure that feedback from patients and providers on quality of services and adverse drug effects are recorded, processed, and acted upon by the appropriate regulatory agencies at the state level. As a consequence, very weak and sometimes nonexistent links tie patients and users with the appropriate authorities and the overall policy-making process related to pharmaceutical management.

Drug selection: According to the National Drug Policy, selection of drugs should be based on the EDL. Respondents from all the states confirmed the existence of the EDL in their states. However, the lack of familiarity with the content of the EDL (e.g., number of drugs) signals that the EDL is either not widely available to state procurement officials or not used even where available. Most of the states indicated that a committee existed at the state level to manage the process of maintaining the EDL. However, the lack of correct information related to the EDL points to the inefficiencies in the operations of these committees.

Procurement: Assessment findings at the national level indicate that many states have a committee or tender board exists to conduct procurements, except for Ondo, Enugu, Anambra, Nasarawa, and Zamfara. The committees that are in place do not follow a specific format, although commonalities exists among states within each zone and among states that have received significant, focused donor support (e.g., DFID Partnership for Transforming Health Systems (PATHS)-assisted states). Across all zones, the majority of respondents did not provide an answer about the existence of standard operating procedures (SOPs) for procurement. Although SOPs might exist, the respondents hinted that they are not used consistently.

When surveyed about procurement operations in the last two years, most states reported that they had conducted procurement more than twice a year.¹⁰ However, the fact the most states had to undertake emergency procurements indicates that the existing system is not functioning effectively.¹¹ Overall, the responses suggest that generic names for drugs are consistently used in procurement.

Not all drugs are procured through competitive bidding. Reasons cited for not procuring drugs through competitive bids include lack of political will, shortage of forms, and emergency and high-priority procurement situations. Overall, all states that responded procure more than 80% of their drugs through competitive bids, except Bauchi, which reported 65%, and Sokoto and Jigawa, which reported 0%.

While all states responded that they have a drug qualification process in place, most do not test samples as part of the procurement process. The principal reason for not testing is lack of state-level capacity. All states in the North East and North West zones and Plateau, Benue, and Kogi states reported that samples are tested through NAFDAC at the federal level. States in the South East zone were unsure of the locations of the testing labs.

All states reported that data, such as consumption and disease patterns, are used in quantification. However, no evidence was provided on whether this actually happens regularly. The inconsistent use of data might compromise the timing of procurement operations and the efficiency of price negotiations for essential drugs.

Storage and distribution: Overall, most states indicated that their storage and distribution functions were guided by inventory ledgers and SOPs. Moreover, states across all zones reported that drugs are stored under the conditions specified by SOPs. However, other assessments, such as the (FMOH, 2002) show that this might not be the case, especially in villages where the equipment is lacking (refrigerators/generators) or where the equipment exists but cannot be operated due to lack of power or fuel. The majority of states reported no inventory loss although some mentioned that inventory loss is a sensitive, poorly documented topic. Further exploration in this area is warranted.

None of the states reported contracting distribution functions out to the private sector. Several of the states mentioned that the distribution system was not integrated, but they did not provide further explanations for this situation. As such, the efficiency of the distribution system could not be assessed from the data collected.

¹⁰ Some states, like FCT and Yobe, conduct procurement monthly. Others, such as Bayelsa, Bauchi, Katsina, and Nasarawa, conduct procurement quarterly.

¹¹ Only Osun, Sokoto, and Borno reported no emergency procurements at all in the last two years. Yobe reported a surprising number of emergency procurements (more than five in 2006 and more than three in 2007), considering that procurement is conducted monthly.

Appropriate use: Most states use posters, information sharing and labeling of drugs to ensure appropriate use. For example, several of the states, especially in the South West zone, organize monthly reviews of prescribing practices. The person presiding over these reviews varies from state to state depending on the structures in place (e.g., in Enugu the Drug Revolving Fund's [DRF's] Prescription guide serves as a good reference). Most states, however, do not have a robust system for monitoring prescribing practices. For example, North East states reported having no system at all.

All states reported that standard treatment guidelines exist and that they are used for basic and in-service training of health personnel. However, it was not clear whether the use of treatment guidelines is monitored and whether these results would be availed to the general public.

Access to quality products: Data was not available on the percentage of the population having access to a pharmacy, the population per licensed pharmacies, and the percentage of households that are more than 5 or 10 km away from a health facility or pharmacy. None of the states listed anything related to pharmaceutical management as a barrier for PLWHA to obtain treatment.

Financing: All states (except Adamawa, Osun, and Imo) reported that a cost recovery system had been introduced for pharmaceuticals. Most of the health facilities across the country have DRFs in place. In some states, like Cross River, the State Essential Drug Program is in charge of the cost recovery programs. According to our survey, the percentage of drug costs recovered ranges from 30% to 100% across states. However, the percentage of recovered drug funds that are reinvested for drugs purchases to sustain the inflow of funds and ensure the availability of essential drugs in health facilities could not be established.

While this assessment did not provide more specific information about financing of pharmaceuticals, WHO's *Medicine Prices in Nigeria: Prices People Pay for Medicines* (2006), reported that patients pay 2-64 times international reference prices for medicines in public and private facilities and that prices for procurement range from 2-38 times international prices in the state central medical stores surveyed. Furthermore, WHO reports prices in the public sector to be almost identical to those in private pharmacies. Based on this information, it appears that high medicine prices are a great barrier to accessing health care and that this should be a cross-cutting consideration when reforming the pharmaceutical management system.

5. CONCLUSIONS AND RECOMMENDATIONS

Several conclusions can be drawn from this assessment. It must be stressed that the Nigerian health system is operating in a very complex and rapidly-changing environment. Much of this complexity and change are being driven by the ongoing health sector reform efforts.

First, the country has a good supply of human resources for health (HRH) in comparison to other countries in the region. However, there are great disparities in distribution across zones and across the rural-urban divide. A national human resources information system is in place although there was no information obtained on the scope, timeliness, quality and use of HRH data. Functional HRH planning and management units with sufficient personnel and adequate human resources planning skills within the SMOH and Federal level are generally not adequate.

Second, relative to its high burden of disease and large population, health financing levels in Nigeria remain low, on a per capita basis and as a share of the state government budget. At the Federal level, the budgetary allocations highlight systematic underfunding of non-salary recurrent operating costs. Relatively higher levels of financing are observed in states with significant donor presence, and even in these states, total health expenditure per capita is less than US \$4.00. Data from the assessment also confirms the commonly held belief that data on how health is financed as well as levels of actual expenditures are not readily available in most states. The collation and documentation of expenditure data resides in multiple agencies including the Ministry of Finance, State Planning Commissions and sometimes in the Office of the Accountant General. This variability in documentation makes it difficult to adequately capture expenditure data and in some states, actual expenditure data is not available.

Third, the coverage of most key preventive and curative health services is relatively low in Nigeria. This is compounded by geo-political zone, rural-urban and socio-economic disparities in coverage. For example, despite the rapid expansion of HIV services across the country, coverage of PMTCT, VCT and ART remains relatively low. Fewer than 25% of pregnant women receive any HIV counseling. VCT coverage is also low. Overall, 6% of women and 14% of men aged 15-49 were tested and received results. Rural areas and northern states lag behind on VCT and counseling coverage. Individuals belonging to the poorest fifth of the population are much less likely to receive HIV-related services than their counterparts in the richest 20% of the population: 7 times less likely for HIV counseling during pregnancy, 18 times less likely for VCT among women and 4 times lower for men. This indicates that there may be both economic and gender barriers to HIV service use. Overall national hospital bed availability of 9.2 per 10,000 people is above sub-Saharan average of 5.6 per 10,000 people. However distribution varies as shown by the figure of 4.3 beds per 10,000 people in the North West zone.

Service delivery at the primary level is relatively weak and needs further strengthening if the country is to expand access to critical health services in Nigeria. This means focusing on LGA facilities. Increasing the number of functional LGA facilities that provide VCT, ANC and PMTCT services is also closely related to the imperative of increasing coverage among rural populations. Furthermore, economic barriers to health service use remain very high, and must be addressed if service coverage among the poor is to be expanded. Although service delivery strategies like outreach or staff incentives may help to

reduce inequities in service use, it may be important to consider other strategies such as vouchers to lower economic barriers for the poor.

Fourth, governance across the health sector is very weak. For example, institutional arrangements for channeling advocacy and participation are not functioning well. There is significant variation on the level of effectiveness of SCH's across zones. Furthermore, there are few organizations that are informed and capable enough to link members of the public with providers and policymakers or engage with public officials in the establishment of policies, plans and budgets for health services.

Fifth, HIS capacity across the country varies widely. Most states have limited budgets for HIS activities that provide adequate support for HIS. For example, annual budgets for health information activities ranged from N4.2 million/annum (Ebonyi) to N10 million/annum (Imo). Few states have an adequate (well trained and sufficient resources with all positions filled) cadre of HIS personnel, particularly at state- and LGA levels. There is significant variation among states by level and type of available health information cadres. Some states have designated health information staff at LGA level, with donor supported states having health and medical records officers available up to facility level. The use of data for decision-making purposes is a weakness across all states. The lack of essential supplies (forms), insufficient staff and data transmission challenges are cited as reasons for low reporting rates.

Finally, in the area of pharmaceutical management, the system has mixed results. While the government has made tremendous progress in developing national pharmaceutical policies and regulations, implementation and enforcement of these policies lags far behind. For example, in terms of procurement, the high number of emergency procurements suggests that the planning process within the system is not functioning well. Another area of concern is the implementation of the Drug Revolving Funds as form of cost-recovery. There is not sufficient information to date on how the resources that are kept at the health facility level are reinvested in the procurement of drug to sustain availability and affordability. There is also not sufficient information on the deferral and exemption policies and their effectiveness in reaching the poor.

Based on the findings and conclusions, the Federal government in collaboration with state governments and development partners should:

1. Establish national norms and an HRH monitoring framework for addressing human resource imbalance. The framework for HRH deployment should be based on factors such as disease burden, population size and incentives to attract and retain staff.
2. Strengthen public participation in policy development and implementation through a) strengthening voice indicators in the HMIS, b) supporting independent policy analysis and advocacy groups to 'demystify' health expenditures and service delivery so that ordinary citizens can understand them, and c) working with one or more CSOs to develop local knowledge about health and health services/budgets and thereby become effective intermediaries and advocates for citizens.
3. Design and implement resource tracking efforts at the Federal and sub-national levels, including but not limited to conducting national and state health accounts, for general health as well as for HIV/AIDS, malaria, reproductive health, and child health. In addition, they should explore mechanisms to enhance the accountability and transparency of financial flows at the state level, including responsibilities for health financing. Engage civil society in this effort, to generate demand for information on how health is financed.
4. Increase the resources (funding and trained personnel) availed to the central and state HIS units to enhance capacity to coordinate the HIS and produce relevant, timely health information products.

5. Issue a directive from the FMOH to clarify roles and responsibilities with respect to provision of essential supplies (i.e., registers and forms) for recording health information. This should include defining and implementing standards for data sharing among departments and vertical programs at the FMOH level.
6. Define or scale-up formal accountability mechanisms that prioritize user and community participation in policy formulation and service monitoring and that oblige policymakers and providers to listen and respond to citizens and users.
7. Define or scale-up policy benchmarks and technical standards of care that members of the public can easily access and use in holding policymakers and providers to standard and also strengthen local monitoring of technical standards, including by supporting a network of CSOs to build a citizens' coalition that will monitor service delivery improvement, good governance and anticorruption.
8. Strengthen and publicize Servicom's role in helping users to claim the services they deserve and introduce incentives and sanctions that encourage the production of service quality and cost data.
9. Engage stakeholders at federal, state, and local government levels to enforce and implement good procurement practices into the drug management system at the state level.
10. The FMOH should lead the SMOH to scale-up and strengthen the consumer protection movement by increasing awareness of pharmaceutical management problems among consumers.

ANNEX A

Both national and zonal data were collected as part of the health system assessment. The following annexes present zonal findings from each of Nigeria's 6 geopolitical zones: North Central, North East, North West, South East, South South, and South West. Data provided for each zone is summarized by health system component (HRH, financing, service delivery, HIS, governance, and pharmaceutical management). Data availability and quality varied from state to state and is acknowledged within each zonal summary.

ZONAL FINDINGS AND DISCUSSIONS

I. NORTH CENTRAL ZONE

States: Benue, Federal Capital Territory, Kogi, Kwara, Nasarawa, Niger and Plateau states

Population: 20,266,257 (2006 est.)

Infant Mortality Rate: 103 per 1,000 live births (2003 est.)

Number of Health Professionals: 9,395 (FMOH 2007)

HIV/AIDS prevalence: approximately 6%

Poverty Incidence: 67.0%

Fertility rate: 5.7

*Includes doctors, nurses, midwives, medical laboratory scientists, and pharmacists.

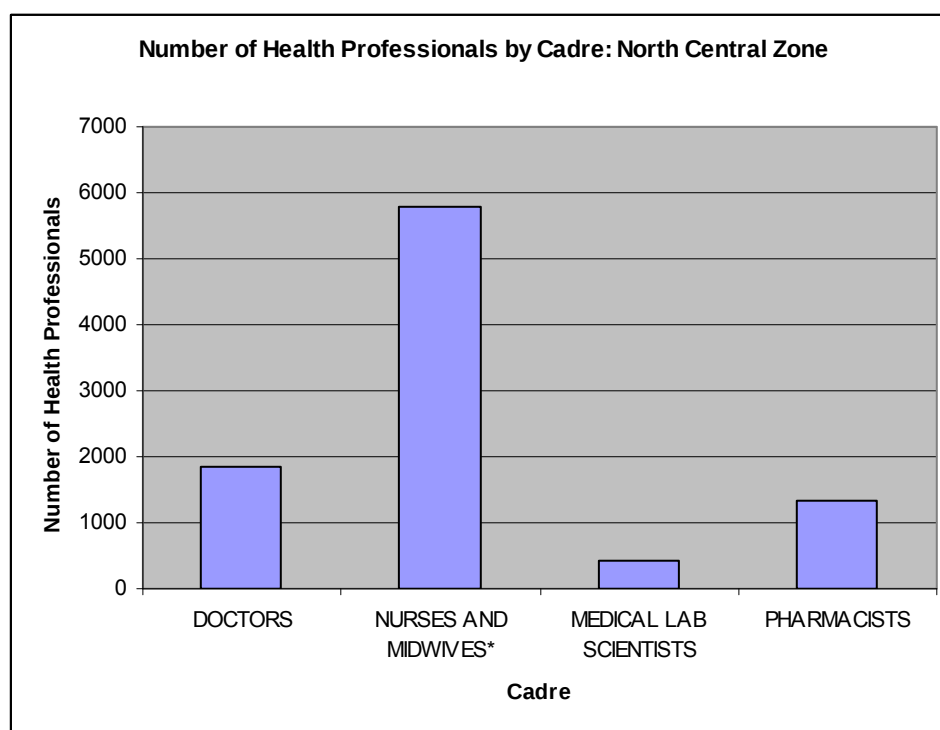
The North Central zone includes Benue, Federal Capital Territory, Kogi, Kwara, Nasarawa, Niger and Plateau states. The HIV prevalence is relatively high in most states in this zone (barring Kwara) with the prevalence of Benue state estimated to be over 6%. In this zone, data was collected from all states except for Kwara.

i. Human Resources for Health (HRH)

Human Resources for Health Planning: The table below provides a breakdown of the distribution of health care workers by cadre and state. FCT has the highest concentration of doctors, while Kogi has the lowest. The range of distribution of nurses/midwives is lowest in Benue and highest in Niger. The availability of pharmacists and laboratory technicians is lower than doctors and nurses. All states reported that the migration of health care workers is affecting the availability of HRH within their state. All states except for Nasarawa reported a significant human resource imbalance between rural and urban areas, with more health workers available in urban areas.

TABLE 6: NUMBER OF HEALTH PROFESSIONALS BY CADRE: NORTH CENTRAL ZONE

State	Doctors	Nurses/Midwives	Medical Laboratory Scientists	Pharmacists
Benue	222	995	53	56
FCT	232	735	96	635
Kogi	185	1294	52	69
Kwara	843	NA	56	106
Nasarawa	96	397	18	73
Niger	69	1192	8	138
Plateau	194	1165	151	265
TOTAL	1841	5778	434	1342

FIGURE 9: NUMBER OF HEALTH PROFESSIONALS BY CADRE: NORTH CENTRAL ZONE (FMOH, 2007)

Four of the six states reported having a health staff deployment strategy in place. A human resources data system is in place in all except Benue State. No information was available on the effectiveness of the HRIS. FCT, Plateau, and Nasarawa all report having a functioning, resourced HRH planning and management unit, with enough personnel and adequate HRH planning.

The percentage of the state health budget dedicated to HRH varies significantly ranging from 12% in Kogi state, to 26% in FCT, 47% in Nasarawa, 60% in Niger and a surprising 75% in Benue state.

Human Resources for Health Policies: Professional associations require registration, certification or licensure of health professionals to practice. Requirements for periodic recertification are also in place. Membership in these associations is a prerequisite for any health professional seeking employment with

the State MOH or persons wishing to engage in private practice. Monitoring of registration status is monitored in the public sector. The situation in the private sector is more complex. Upon opening of a new facility, licensure requirements are verified. Respondents did not have any data on periodic recertification of private sector practitioners.

All states, except for Nasarawa, had a salary structure for health personnel. Respondents from Nasarawa, Niger and Kogi states reported that compensation in the public sector is competitive with the private sector while Benue state indicated that compensation is more competitive in the private sector. Representatives from FCT and Plateau states did not have any information on whether compensation in the public sector is competitive with the private sector.

With the exception of Plateau state, salaries were reported to be paid on-time and paid in full in all those states except Kogi state.

Human Resources for Health Performance Management: Job descriptions were reportedly available for health workers employed in all states in the zone. Respondents from Nasarawa and Niger states reported that job descriptions are regularly updated in their states. However, only Plateau and Kogi states indicated that job descriptions are systematically shared with staff.

An integrated supervision (administrative and clinical) policy exists only in Kogi state. However, the percentage of supervision visits to health centers planned and actually conducted in this state is unknown. No other states reported having integrated supervision policies. A formal mechanism for individual performance planning and review for hired staff was reported to be available in all states except for Plateau state. Reviews between personnel and supervisors were conducted on regular basis and documented in Nasarawa, Niger, Benue and FCT states.

ii. Health Financing¹²

Health financing is examined according to three overarching indicators: (1). Revenue collection, which includes the amount and sources of financial resources; (2). Pooling and allocation of financial resources, including government budget formulation and allocation; and (3). Purchasing and provider payment, including user fees and insurance schemes.

Revenue Collection – Amount and Sources of Financial Resources¹³: For the states with data available, per capita health expenditures increased between 2006 and 2007 (Figure X). However, none of the states in the North Central zone are providing the WHO Commission on Macroeconomics and Health recommended USD\$34 per capita needed to finance a basic package of health services. In fact, the highest level of per capita spending in 2007 was in Nasarawa at approximately USD\$15.

Four of the six states reported having a health staff deployment strategy in place. A human resources data system is in place in all except Benue State. No information was available on the effectiveness of the HRIS.

¹² All states in this zone except Kwara participated in the data collection workshop. Only Nasarawa, Niger, and the Federal Capital Territory provided updated data for inclusion in the analysis. Nasarawa, Kogi, and FCT submitted supporting documentation to verify the figures submitted. Thus, it is not clear whether the information provided is actual expenditures or approved budget allocations.

¹³ The data on revenue collection for each zone are presented in table format, with notations for the states that provided updated and revised data to what was initially submitted at the data collection workshop. Throughout the zones, NP indicates the data were not provided, meaning that the states either did not provide the data initially during the data collection workshop or did not submit revised and updated financing component following the workshop. NA indicates the data were not available, meaning that the state representative indicated that he/she did not know the information or that the data were not possible to obtain.

FCT, Plateau, and Nasarawa all report having a functioning, resourced HRH planning and management unit, with enough personnel and adequate HRH planning.

The percentage of the state health budget dedicated to HRH varies significantly ranging from 12% in Kogi state, to 26% in FCT, 47% in Nasarawa, 60% in Niger and a surprising 75% in Benue state.

Human Resources for Health Policies: Professional associations require registration, certification or licensure of health professionals to practice. Requirements for periodic recertification are also in place. Membership in these associations is a prerequisite for any health professional seeking employment with the State MOH or persons wishing to engage in private practice. Monitoring of registration status is monitored in the public sector. The situation in the private sector is more complex. Upon opening of a new facility, licensure requirements are verified. Respondents did not have any data on periodic recertification of private sector practitioners.

All states, except for Nasarawa, had a salary structure for health personnel. Respondents from Nasarawa, Niger and Kogi states reported that compensation in the public sector is competitive with the private sector while Benue state indicated that compensation is more competitive in the private sector. Representatives from FCT and Plateau states did not have any information on whether compensation in the public sector is competitive with the private sector.

With the exception of Plateau state, salaries were reported to be paid on-time and paid in full in all those states except Kogi state.

Human Resources for Health Performance Management: Job descriptions were reportedly available for health workers employed in all states in the zone. Respondents from Nasarawa and Niger states reported that job descriptions are regularly updated in their states. However, only Plateau and Kogi states indicated that job descriptions are systematically shared with staff.

An integrated supervision (administrative and clinical) policy exists only in Kogi state. However, the percentage of supervision visits to health centers planned and actually conducted in this state is unknown. No other states reported having integrated supervision policies. A formal mechanism for individual performance planning and review for hired staff was reported to be available in all states except for Plateau state. Reviews between personnel and supervisors were conducted on regular basis and documented in Nasarawa, Niger, Benue and FCT states.

ii. Health Financing¹⁴

Health financing is examined according to three overarching indicators: (1). Revenue collection, which includes the amount and sources of financial resources; (2). Pooling and allocation of financial resources, including government budget formulation and allocation; and (3). Purchasing and provider payment, including user fees and insurance schemes.

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the North Central zone are providing the WHO Commission on Macroeconomics and Health recommended USD\$34 per capita needed to finance a basic package of health services. In fact, the highest level of per capita spending in 2007 was in Nasarawa at approximately USD\$15.

Government expenditure on health as a percent of total government expenditure ranges widely across the zone, from 2.20 percent in Plateau State to 11.20 percent in Nasarawa State. The proportion of total health expenditures funded by the government ranges across states in the zone from 16 percent in Nasarawa to 60 percent in Niger. However, health as a share of total government expenditures is low across all states. Similarly, government funding for HIV/AIDS is low.

TABLE 7. REVENUE COLLECTION INDICATORS IN NORTH CENTRAL ZONE¹⁶

	Benue		Nasarawa		Niger		Kogi		Plateau		FCT	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Per capita total health expenditure, naira	NP	NP	N607.48	N1,871.13	N141.17	N652.19	N501.00	N626.00	N152.20	NA	N559.16	N568.5
Government expenditure on health as % of total government expenditure	NP	NP	12.30%	11.30%	9%	5.40%	4.90%	5.00%	1.50%	2.20%	5.06%	6.91%
Public (government) spending on health as % of total health expenditure	NP	NP	18.20%	16.04%	55%	60%	NP	NP	NP	NP	96.30%	27.66%
Public (government) spending on HIV/AIDS as % of total health expenditure ¹⁷	NP	NP	0.42%	0.46%	NA	NA	0.20%	5.50%	NP	NP	NA	NA

Sources: Nasarawa: Ministry of Health Planning Unit; Nasarawa: Ministry of Health Finance Department; Niger: Niger State Ministry of Health Department of PRS; Kogi: Ministry of Budget and Planning; Plateau: Ministry of Health Finance Department; FCT: Federal Capital Territory Statistical Bulletin.

Pooling and Allocation of Financial Resources – Government Budget Formulation and Allocation: The budget formulation process was reported to be nearly identical across the states in the zone. Each department within the Ministry of Health submits budget requests to the Department of Planning, which collates the information for submission to the Ministry of Budget and Planning. The Directors of each department review the budgetary request submission and subsequently present it to the State Health Commissioner. Following this, the budget is presented to the Executive Committee (EXCO) and then to the National Assembly. In Kogi, the Ministry of Finance provides guidelines about how the Ministry of

¹⁵ The data on revenue collection for each zone are presented in table format, with notations for the states that provided updated and revised data to what was initially submitted at the data collection workshop. Throughout the zones, NP indicates the data were not provided, meaning that the states either did not provide the data initially during the data collection workshop or did not submit revised and updated financing component following the workshop. NA indicates the data were not available, meaning that the state representative indicated that he/she did not know the information or that the data were not possible to obtain.

¹⁶ It is not clear whether the data provided for Adamawa and Borno States for government expenditure on health as a percent of total government expenditure are indeed the same as public expenditure on health as a percent of total health expenditure, or if there was confusion regarding the information (i.e. numerator and denominator) the indicator was requesting.

¹⁷ FCT indicates that in 2006, the state government spent N100,130,004 on HIV/AIDS and in 2007, the government spent N11.1 million. Without data on total health expenditures, however, it is not possible to determine the percent of total health expenditure spent on HIV/AIDS.

Health should organize its spending. Budgets are organized around line items or sub-heads. In Nasarawa, the extent to which the Ministry is generating revenue as well as accomplishments achieved in the previous year can help to determine whether the budget request is approved.

The autonomy and authority of Ministry of Health spending is variable across the states. In Nasarawa, the specialist hospital is semi-autonomous, and other facilities have varying levels of autonomy in how they determine their recurrent cost expenditures (or running grants) and procurement. In Niger, purchases are determined by the Drug Revolving Fund Committee of the Ministry of Health. In Kogi and Benue, facilities do not receive running grants.

User fees, or internally generated revenue (IGR), are added to the recurrent expenditures in Plateau and Niger States, and the FCT. In Niger State, IGR is used to purchase hospital consumables, such as reagents and basic instruments. In FCT, a portion of the IGR is also pooled at the facility level. A Hospital Management Committee (HMC) establishes and maintains operational guidelines to govern the use of IGR in FCT, which is primarily for purchasing additional medicines and consumables, as well as for administrative costs. In Benue and Kogi, while there are no running grants, facilities can keep 90 and 70 percent of IGR at the facility level, respectively. In each state in the zone, internal auditors monitor expenditures and provide reports to the Secretary of Health for the state, and in Niger, to the State Accountant General.

Purchasing and Provider Payment: Free health programs exist in the states but, with the exception of the FCT, data were not provided on whether these programs are insurance-based or not. If not covered under the insurance scheme in FCT, outpatients could be charged for the registration card, drugs, supplies, and diagnostic tests and inpatients could be charged for bed space, drugs, food, supplies, and lab and other diagnostic tests.

A fee waiver and exemption scheme in FCT covers immunizations and DOTS for TB patients. In Niger State, a similar scheme covers children under five, pregnant women, and the elderly for outpatient or inpatient healthcare services. Fees lost at the facility level through this scheme are replaced by funds from the government.

Contracting between the public and private sectors, incentives, and performance-based financing schemes are virtually non-existent across the states.

iii. Service Delivery

Service delivery data for this zone is summarized in Table 8. The following narrative provides additional insights captured within three service delivery indicators: (1) Service provision capacity ;(2) HIV/AIDS service provision; and (3) The private sector share of HIV/AIDS service provision.

General service provision capacity

The average number of public sector hospital beds in the zone is 8.6 for every 10,000 people, slightly below the national average of 9.2. There is, however, a wide variation within the states in the zone between Kogi, which has 32.0 public sector hospital beds for every 10,000 people, and other states which have an average of 2.1 to 7.2 public sector beds.

The North Central zone has more primary care facilities per capita than the national average (2.4 compared to 1.6 for 10,000 people). Differences between states are relatively limited.

HIV/ AIDS service provision

The proportion of public sector facilities offering VCT services is greater than the national average, but this high average conceals important differences between states, with reported service provision capacity concentrated in FCT and Benue. Approximately 1.0% of public sector facilities in North Central zone offer PMTCT, which is slightly above the national average. Public sector facilities in FCT and Benue, once again, are more likely to report offering PMTCT (6.8% and 1.8% respectively). Less than 1% of public sector facilities in the remaining states offer PMTCT. Only 0.7% of public sector facilities offer any ART services despite the high zonal HIV prevalence. 5.8% of public sector facilities in FCT offer ART, while reported ART availability in the remaining states is very low, ranging from 0.2% to 0.9%.

Laboratory capacity is very limited in public sector facilities. On average, only 4.2% of public facilities reported having a laboratory compared to the national average of 6.1%. FCT, Kogi and Nasarawa have the highest percentages of facilities with laboratories within the zone, ranging from 5.8% to 6.3%. In contrast, only 1.5% of public sector facilities in Niger reported having a laboratory.

Private sector share of HIV/ AIDS service provision

Private sector facilities account for a fairly large proportion of existing HIV/AIDS providers in the North Central zone. On average 41%, 40% and 43% of VCT, PMTCT and ART facilities are private. With regard to VCT, the highest proportion of services provided by private providers is in Nasarawa (68%), Plateau (51%) and Benue (42%) states. Private providers account for the majority of facilities offering PMTCT in Benue (55%) and Plateau (59%) and half of all PMTCT facilities in Kogi. Private facilities dominate ART provision in Benue (61%) and Plateau (69%) respectively.

TABLE 8

Indicator	North Center	Nigeria
	Average	Average
Public sector hospital beds per 10,000 people (<i>Range</i>)	8.6 (2.1, 32.0)	9.2 (2.1, 32.0)
Public sector primary care facilities per 10,000 people (<i>Range</i>)	2.4 (1.3, 3.2)	1.6 (0.3, 3.4)
% of public sector facilities that currently offer VCT (<i>Range</i>)	3.40% (0.6, 10.5)	2.20% (0.3, 13.1)
% of public sector facilities that currently offer PMTCT (<i>Range</i>)	1.00% (0.2, 6.8)	0.90% (0.2, 6.9)
% of public sector facilities that currently offer ART (<i>Range</i>)	0.70% (0.2, 5.8)	0.70% (0.1, 7.4)
% of public sector facilities that currently have a laboratory (<i>Range</i>)	4.20% (1.5, 6.3)	6.10% (0.5, 50.8)
% of VCT facilities that are public	58.90%	65.07%
% of VCT facilities that are private	41.10%	34.93%
% of public facilities that offer VCT	3.40%	2.25%
Total number of VCT facilities	258	682
% of PMTCT facilities that are public	60.30%	71.60%
% of PMTCT facilities that are private	39.70%	28.40%
% of public facilities that offer PMTCT	1.00%	0.93%
Total number of PMTCT facilities	78	245
% of ART facilities that are public	56.90%	76.07%
% of ART facilities that are private	43.10%	23.93%
% of public facilities that offer ART	0.70%	0.75%
Total number of ART facilities	58	181

iv. Health Information Systems

Zonal health information system data is presented as it relates to three broad indicators: (1). resources, policies and regulation; (2). Data collection and quality; and (3). Data use.

Resources, policies and regulation: States in the north central zone receive financial support for HIS from a variety of sources. In Benue, Kogi, Nassarawa and Niger, HIS activities are supported by the State MOH annual budget. FCT and Plateau HIS functions are entirely financed by the HSDP project. 50% of respondents from the zone report experiencing frequent stock outs of recording forms and registers negatively impacting the collection of health information. Benue state has ICT equipment at state and sub-state level. The remaining states have ICT infrastructure at state level, and at selected (<50%) of sub-state sites. Connectivity is available only at the state MOH level. No states in this zone make budgetary provisions for ICT maintenance. The impressed (equivalent of petty cash) budget is used to cover any maintenance expenditures.

A range of donor partners provide HIS assistance in the North Central Zone. These include Paths (Benue), HSDP (FCT, Benue, Kogi, Niger) and Save the Children (Niger). Nassarawa and Plateau state do not receive any donor support for HIS related activities.

Guidelines on collection and use of data, based on the State HMIS policy documents and government circulars, are in place across the zone but poorly enforced.

Data collection and quality: Reporting rates from districts on surveillance are relatively low across the zone. 5 of 6 states cite reporting rates (timeliness of submission of data) of approximately 50%. Plateau state receives less than 25% of its reports on time. Benue State has instituted an output payment scheme (2000N/report) to improve timeliness and completeness of data. According to the HMIS officer, this scheme has helped raise reporting rates to 75%.

Reporting on the minimum data set is also variable across the zone. Benue and FCT indicate that data is submitted regularly and on time, whereas Kogi, Nassarawa and Niger describe reporting as irregular and incomplete. The Plateau HIS very poor reporting rates. According to the HMIS officer, this is due to a lack of forms and delays in disbursement of funds.

All states in the zone indicate very low submission (less than 10%) of routine reports from private facilities. Reasons cited for this situation include fear of taxation, and a lack of training on data definitions and use of forms. Nevertheless, all states have updated facility registries covering both the public and private sector.

The state level HMIS policies outline standards for data collection, compilation, analysis and use. All respondents stated that these are only partially implemented. All facilities throughout the zone are required to submit annual reports on inventory and status of physical equipment, as well as quarterly reports on levels of supplies and commodities. 50% of the zone (Benue, FCT and Kogi) regularly produce integrated HIS summary reports. Plateau, Nassarawa and Niger do not publish HIS reports.

Data use: Human capacity at State MOH level was defined as adequate by all respondents. Differences arose at sub state level. Benue, FCT and Niger have designated HIS officers at over 50% sub-state structures. Kogi, Nassarawa and Plateau have deployed HIS staff to the LGA level. Very few health facilities in the three states have health records officers (HRO's) or medical records officers (MRO's).

All states described the demand for data by senior policy makers as ad hoc and driven by punctual pressures.

Availability of timely data varies across the zone. Benue and FCT have current (less than 2 year old) data (annual health statistics) that can be used by policy makers. Niger and Nassarawa annual statistics date six years. All respondents indicated that health information is only occasionally used to inform budgets, plans and frameworks. One respondent stated that delays in budget release create opportunities for inappropriate use of health funds. Benue is the only state in North Central that reports providing regular feedback to service delivery sites through a bulletin, which is available at all district health offices.

There are no mechanisms in place to provide feedback/information to the public on state health programs.

v. Governance

Zonal governance data is presented according to 4 indicators: Responsiveness; Compliance, resource utilization and equity; Coordination; and Stability.

Responsiveness: Only Kogi boasts a forum that is specifically devoted to health. Benue, Nassarawa, and Plateau rely on quarterly SACA meetings to bring together representatives of FBOs, NGOs, widows groups, traditional rulers, military health establishments, SMOH, line ministries and LGAs. Niger organizes People's Forums that enable the governor and his team to interact with members of the public on government policies, including those relating to the health sector.

TABLE 9

State	State Councils in Health	Extended SACA meetings	People's Forums
Benue	X		
FCT	X		
Kogi	X	X	
Nasarawa	X	X	
Niger	X		X
Plateau	X	X	

* States did not mention PPP forums, International Partners Forums, NGO coordinators meetings or HERFON meetings

Compliance, resource utilization and equity

Consumer protection: Professional councils, the judiciary, the Public Complaints Commission (for civil servants), NGOs, human rights organizations and federal regulatory agencies (such as NAFDAC) help providers, clients and other concerned stakeholders when regulations, protocols, standards and or codes of conduct are violated.

Misuse of resources: Procedures exist for reporting, investigating and adjudicating the misallocation or misuse of resources including standard public service audit procedures in respect to public providers.

Fighting bias and inequity in access to services: In Niger, CSOs, ad-hoc government committees, group protests and the state assembly are also procedures and institutions that clients, providers and concerned stakeholders can use. CSOs also provide oversight of public, voluntary and private provider organizations in all the other states (and FCT), except Plateau.

Coordination: In all states, the forums mentioned previously serve as the mechanisms for coordinated and harmonized actions across sectors and tiers and soliciting public and stakeholder input. The NCH takes care of inter-state coordination while the State Planning Commission is responsible for donor coordination. There was no information on how effectively donors were coordinated.

Stability: Except for Niger there have been no significant cases of policy instability in this zone (i.e. changes by succeeding administrations that are based on political considerations rather than the needs of the health system). However, as the respondents noted, successive governments at the state and local level tend to see health services as a drain on revenues.

vi. Pharmaceutical Management

Pharmaceutical management within each zone is examined across several different indicators: Pharmaceutical policy, laws, and regulations; Drug selection; Drug procurement; Storage and distribution; Appropriate use; and Drug financing.

Pharmaceutical Policy, Laws and Regulations

- **Pharmaceutical registration system:** State representatives were not clear about the identity of the agency responsible for enforcing policies, laws, and regulations on registration. All states except Plateau, incorrectly identified PCN as the responsible agency. In addition to PCN, Niger's response also included a mention of NAFDAC, the correct responsible agency for the enforcement of policy, laws, and regulations on registration.
- **Collection of data regarding the safety and efficacy of marketed pharmaceutical products:** According to Plateau, patient knowledge was perceived as a significant barrier to reporting. FCT and Niger both had pharmacovigilance forms which patients could use to report problems. In all states except FCT, information from doctors on this topic was collected by the pharmacist in charge of the hospital.
- **Licensing, inspection, and control:** Respondents correctly identified PCN at the federal level and the State Ministry of Health's Department of Pharmaceutical Services as the principal agencies responsible for these areas. Nasarawa reported the state pharmaceutical inspectorate reports quarterly to the PCN on licensing, inspection and controls of drugs. FCT reports monthly on the same issues. Enforcement is coordinated through the Inspectorate Division of the DPS, which does inspection visits twice a year in Nasarawa and Plateau, less than twice a year in FCT, almost weekly in Niger, and in response to problems in Benue and Kogi.

Drug Selection

None of the respondents knew the exact number of drugs on the EDL and only Nasarawa, Benue, and Kogi knew the year of issue of the most recent EDL. All states, except Nasarawa and Niger, affirmed the existence of a committee responsible for managing the process of maintaining the EDL at the state level.

Drug Procurement

- **Organized procurement committee:** A Ministerial Tenders Board requested from the DPS is responsible for overseeing procurement in Plateau and Kogi. In Benue, the DRF procures drugs, but invites the Hospital Management Board for input. In Niger, procurement is overseen at two levels: at the state level by the DPS, and at the LGA level by the HSDP program. FCT reported that the Abuja Medical Store is semi-autonomous and is in charge of the tenders process. Hospitals and private health facilities procure all drugs through them. Nasarawa did not report having a procurement committee. The respondents provided no answer on the existence of SOPs for procurement.

Additionally, four out of the six states used generic names in procurement (Kogi did not know, and Nasarawa responded negatively). The number of drug procurements per year ranged from 0 in Plateau state to 12 in Federal Capital Territory between 2006 and 2007. No states reported emergency procurements. (See Annex 3)

- **Competitive bidding:** FCT, Niger, Benue and Kogi procured all their drugs competitively while the other states did not know whether the process was competitive. The reasons cited for shortfalls in competitive bidding were poor advertisement of tenders (Nasarawa) and pharmacies buying directly from pharmaceutical companies (FCT).
- Plateau, FCT, and Kogi had a **procurement qualification process**, while Nasarawa, Niger, and Benue tested pharmaceutical samples as a part of the procurement process. NAFDAC was responsible for testing in Plateau, Benue, and Kogi, NPRID mini-labs conducted the testing in Nasarawa and quality control labs conducted the testing in Niger. FCT provided no answer.
- **Quantification:** All states responded that data was used for quantification. For example, Niger, FCT, and Benue reported that drug consumption rates in hospitals are used to estimate drug quantities to be procured, while the other states used need as the main criteria.

Storage and Distribution

All states reported that inventory control is guided by information in ledgers and that they have postings on guidelines for inventory control. All states responded that the distribution functions were not integrated, but did not provide further details on this. All states reported that drugs are stored under the conditions specified under SOPs. Nasarawa and Plateau reported that they did not experience inventory loss, while FCT, Niger, Benue and Kogi reported expiry, loss, damage, and theft as the major reasons for inventory loss. All states reported that refrigeration units with functional temperature controls exist at the national, state and LGA levels.

Appropriate Use

Pharmacists meet on a monthly basis in Nasarawa, Plateau, and Kogi and on a weekly basis in FCT to discuss dispensing practices. Niger and Benue did not report a similar systematic process, but suggested that the reviews of prescription patterns and drug reactions are regular.

All states reported that standard treatment guidelines exist and that they are used for basic and in-service training of health personnel. However, the use of treatment guidelines is not monitored and any such information would not be easily available for the general public. All states responded that there are SOPs for dispensing drugs in public facilities.

Drug Financing

All states reported that a pharmaceutical cost recovery policy had been introduced although the agencies responsible for enforcing this policy varied by state. The agencies reported to enforce the policy were the Hospital Management Board in Plateau and Benue, the Chief Pharmacist in Nasarawa, and the DRF scheme in Niger and Kogi. FCT did not know.

TABLE 10

State	Percentage of drug costs recovered
Benue	100%
FCT	100%
Kogi	n/a
Nasarawa	n/a
Niger	90%
Plateau	n/a

2. NORTH EAST ZONE

States: Adamawa, Bauchi, Borno, Gombe, Taraba, and Yobe states

Population: 18,971,965 (2006 est.)

HIV/AIDS prevalence: 2-6%

Infant Mortality Rate: 125 per 1,000 live births

Number of Health Workers: 4,414

Poverty Incidence: 72.2%

Fertility Rate: 7.0

The North East zone includes Adamawa, Bauchi, Borno, Gombe, Taraba, and Yobe states. HIV prevalence is in the 2%–6% range in this zone. The zone has historically suffered from poor health outcomes because of weak infrastructure, insufficient HRH, and harmful traditional practices. Data were collected from all states except for Taraba.

i. Human resources

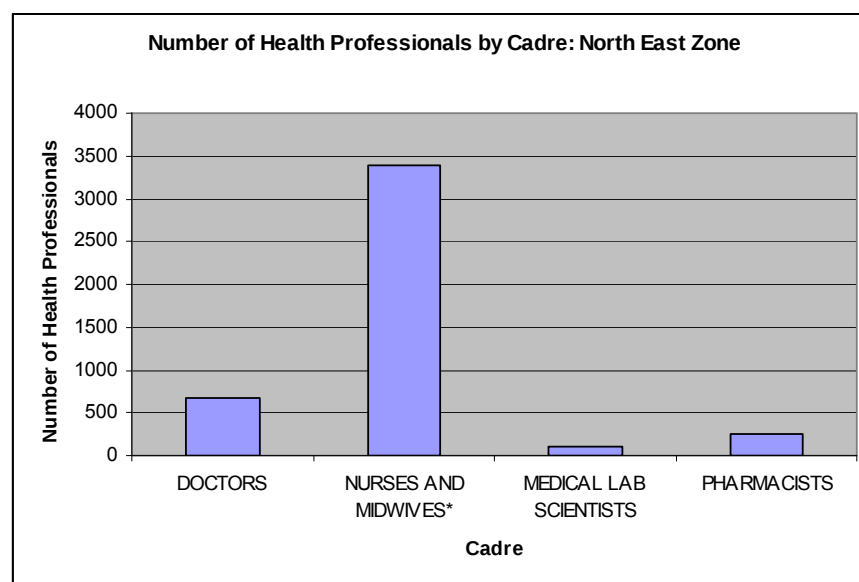
Zonal HRH data is presented according to 3 types of indicators: HRH planning, policies, and performance management.

HRH planning: Table 11 provides a breakdown of the distribution of health care workers by cadre and state. Gombe has the highest concentration of doctors and nurses/midwives, while Adamawa and Bauchi have the lowest. Except for Adamawa, all states reported that the migration of health care workers is affecting the availability of HRH within their state. All states reported a significant HRH imbalance between rural and urban areas.

TABLE 11: DISTRIBUTION OF HEALTH CARE WORKERS, NORTH EAST ZONE

State	Doctors	Nurses And Midwives	Medical Lab Scientists	Pharmacists
Adamawa	89	810	15	60
Borno	194	1190	40	63
Bauchi	92	56	7	42
Gombe	139	577	16	35
Taraba	89	506	9	31
Yobe	72	259	9	14
Total	675	3398	96	245

FIGURE 10: NUMBER OF HEALTH PROFESSIONALS BY CADRE: NORTH EAST ZONE



All states except Gombe had a health staff deployment strategy in place. An HRH data system exists in Borno, Yobe, and Bauchi states. However, a functioning HRH planning and management unit, with enough personnel and adequate HRH planning skills, is available only in Yobe state. Yobe is also the only state that reported knowing the percentage of the state health budget dedicated for HRH, at a level of 20%. Three states did not have any information on the percentage of state health budgets spent on HRH while the representative from Bauchi state did not respond.

HRH policies: Respondents reported that all states require registration, certification, or licensing for staff to practice. Monitoring of this system was reported in Adamawa, Borno, and Gombe states. However, no reporting data were available to the researchers. With the exception of Adamawa, respondents indicated that periodic re-registration and/or re-licensing is required in all the states. No information was available on the extent of re-registration among public and private sector health care providers. Although policies are in place across the board, a lack of data prevented the researchers from determining the extent to which rules and regulations on licensure are enforced across the zone.

All states in this zone have a salary structure for health personnel, developed by the state civil service commission or equivalent. Only Bauchi state responded that compensation in the public sector is competitive with the private sector. Salaries are reported to be paid on time and in full across the zone.

HRH performance management: Job descriptions were reported to be available, regularly updated, and shared with employees in all states.

An integrated supervision (administrative and clinical) policy exists in Yobe and Bauchi states. The percentage of supervision visits to health centers planned and actually conducted in Yobe state was reported to be 23%, while no data were available for Bauchi state.

A formal mechanism for individual performance planning and review for hired staff was reported to be available in Adamawa and Yobe states. Respondents stated that reviews between personnel and supervisors are conducted on regular basis and documented in these states.

ii. Health financing

Health financing is examined according to three overarching indicators: (1). Revenue collection, which includes the amount and sources of financial resources; (2). Pooling and allocation of financial resources, including government budget formulation and allocation; and (3). Purchasing and provider payment, including user fees and insurance schemes.

Revenue collection: Amount and sources of financial resources

In similarity to other zones, accurate and verifiable data on health expenditures are lacking in the North East zone. Thus, it is difficult to assess trends across the states. With the exception of Gombe and Yobe states, revised figures on revenue collection were not provided. In addition, supporting documentation for these data was not provided. As such, the data that were provided for Gombe and Yobe states have not been verified. It is likely, given the sources indicated for the information provided, that the data below are actually budget estimates and allocations, rather than actual expenditures, especially given the absence of state-level health accounts.

Table 12 shows the data provided during the data collection workshop (Adamawa, Bauchi, and Borno) or through revised submissions (Gombe, Yobe) on the revenue collection indicators in the North East zone. With respect to per capita health expenditures, there is a high degree of variability across the states (assuming the data from Borno are accurate). As a percentage of total government expenditure, government expenditure on health is relatively low across the states in the North East zone, and is especially low in Gombe and Yobe. Public expenditure on health as a percentage of total health expenditures is very high in Gombe state relative to other states in the zone, which, if accurate, could suggest low out-of-pocket expenditures by households. The data on this indicator from other states is not verifiable, but is somewhat consistent across the states. Finally, public expenditures on HIV/AIDS as a percentage of total health expenditure, while only provided for Gombe and Yobe states, is similar across the two states.

Table 12: Revenue Collection Indicators in North East Zone¹⁸

Indicator	Updated Data				Data from Data Collection Workshop					
	Gombe		Yobe		Adamawa		Bauchi		Borno	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Per capita total health expenditure (naira)	N373.87	N342.66	NP	NP	NP	NP	NP	NP	N14,313	16,571
Government expenditure on health as % of total government expenditure	2.82	2.39	2.8	2.2	12.2	9.4	10	9	8	9
Public (government) spending on health as % of total health expenditure	91.43	93.42	3.8	2.2	12.2	9.4	NP	NP	8	9
Public (government) spending on HIV/AIDS as % of total health expenditure	8.6	9.18	8.7	1.4	NP	NP	NP	NP	NP	NP

Sources: Gombe: Gombe state approved estimates and 2006 Population Census for Gombe state; Yobe: Approved Annual Budget Estimates; Adamawa, Bauchi, and Borno: Health System Assessment Data Collection Workshop, July 16-18, 2008, Abuja.

¹⁸ * It is unlikely that the data for Adamawa and Borno states for government expenditure on health as a percentage of total government expenditure are indeed the same as public expenditure on health as a percentage of total health expenditure. There was likely confusion regarding the information (i.e., numerator and denominator) the indicator was requesting and quite possibly, data on total health expenditures are not available.

Pooling and allocation of financial resources: Government budget formulation and allocation

The process for budget formulation was reported to be identical across the states in the North East zone. Within the Ministry of Health, the Department of Planning solicits inputs from the Directorates on their respective budget requests for the coming year. The estimates provided are needs-based, and are structured along line items (or sub-heads). In Gombe and Adamawa, the way in which the budget is presented and defended by the State Health Commissioner or the Permanent Secretary has bearing on whether it will be approved. In all states, the budget is submitted for approval to the Executive Committee (EXCO) and subsequently is implemented by the Ministry of Finance. In its approval process, EXCO considers the Governor's priority areas for capital expenditures.

With respect to the level of authority and autonomy of Ministry of Health spending, facilities – regardless of the type - can autonomously determine their recurrent expenditures, but must obtain approval from EXCO for capital expenditures. These expenditures are tracked by internal audit procedures, which generate reports for the Permanent Secretary to review, and subsequently, for review and possible action by EXCO.

Purchasing and provider payment

Insurance schemes are not widely present in the North East zone. Indeed, Bauchi and Gombe are the only states which they had an insurance scheme. In Bauchi, there is a national health insurance scheme which is primarily for individuals employed in the formal sector. Employees contribute five percent of their salaries, and the government contributes 10 percent. Civil servants do not have to pay premiums for the first year of enrollment. Inpatient and outpatient care is covered under the scheme. In Gombe, the insurance scheme is for civil servants, and is funded by employee contributions. Information was not provided for the other states regarding risk pooling mechanisms.

User fees, or internally generated revenue (IGR), are prevalent but there are exemptions and waiver policies in place. For example, bed nets and ACTs are provided free of charge in all states, and in Adamawa, ARVs are provided free of charge. For inpatient care in Adamawa, pregnant women, children under five, and TB patients are exempted from fees. In Bauchi, there is a subsidy and exemption scheme for pregnant women and children under five for inpatient care. Anecdotally, Yobe reported that when services are covered under waivers or exemptions, utilization is higher. In Gombe, a portion of IGR (not more than 15 percent) is kept at the facility level, but the exact proportion was not provided. In all the states, the IGR is put into a revolving fund, and communities do not participate in decisions regarding how the revolving fund is used.

Contracting between the public and private sectors, incentives, and performance-based financing schemes are virtually non-existent across the states.

iii. Service delivery

Service delivery data for this zone is summarized in Table 13. The following narrative provides additional insights captured within three service delivery indicators: (1) Service provision capacity ; (2) HIV/AIDS service provision; and (3) The private sector share of HIV/AIDS service provision.

General service provision capacity

- The average number of public sector beds for every 10,000 people is 10.3, slightly above the national average of 9.2.

- Within the zone, Yobe, Gombe, and Bauchi states have higher public sector hospital bed capacity, ranging from 11.0 to 14.0 per 10,000 people, while Adamawa and Borno lag behind, with 7.5 and 5.5 beds, respectively.
- The average number of public primary care facilities relative to population – 2.0 per 10,000 – is also more than the national average of 1.6, although the North East follows the generally low availability pattern visible across the country.

HIV/ AIDS service provision

- VCT: Only 1.5% (range: 0.9% to 2.6%) of public sector facilities reported offering any VCT services. Gombe (2.2%) and Yobe (2.6%) have a higher proportion of public facilities that offer VCT, while only 0.9% of facilities reported offering VCT in Adamawa.
- PMTCT: At 0.8%, the proportion of public facilities offering PMTCT in the North East zone is slightly less than the national average. With the exception of Gombe state, where 2% of public facilities provide PMTCT, less than 1% of the public sector facilities in the remaining states provide any PMTCT services.
- ART: Only 0.4% (less than the national average) of public sector facilities reported offering ART with a range of 0.1% in Borno to 1.3% in Gombe. The overall low levels suggest that within-zone differences are less important than the overall lack of availability in the zone.
- Laboratory capacity: Over 6% (6.2%) of public sector facilities have laboratories in the zone, which is higher than the national average of 6.1%. There are very sharp differences in laboratory availability between states. For example, 22% of public facilities in Gombe and 8% of public sector facilities in Borno reported having a laboratory while less than 4% of public facilities in Yobe, Bauchi, and Adamawa have these facilities.

Private sector share of HIV/ AIDS service provision

- The private sector share of facilities that offer HIV/AIDS services is relatively limited. Private facilities account for 16.4% of all facilities providing VCT and 7.1% of all facilities providing ART. There are no private sector facilities providing PMTCT services in this zone.
- At the same time, there are important discrepancies across states. Private facilities make a large contribution to VCT facilities in Yobe and Gombe (32% and 23% respectively) while half of all ART facilities in Yobe are in the private sector.

Table 13

Indicator	North East	Nigeria
	Average	Average
Public sector hospital beds per 10,000 people (<i>Range</i>)	10.3 (5.5, 14.2)	9.2 (2.1, 32.0)
Public sector primary care facilities per 10,000 people (<i>Range</i>)	2 (1.6, 2.5)	1.6 (0.3, 3.4)
% of public sector facilities that currently offer VCT (<i>Range</i>)	1.50% (0.9, 2.6)	2.20% (0.3, 13.1)
% of public sector facilities that currently offer PMTCT (<i>Range</i>)	0.80% (0.2, 2.0)	0.90% (0.2, 6.9)
% of public sector facilities that currently offer ART (<i>Range</i>)	0.40% (0.1, 1.3)	0.70% (0.1, 7.4)
% of public sector facilities that currently have a laboratory (<i>Range</i>)	6.20% (1.5, 22.5)	6.10% (0.5, 50.8)
% of VCT facilities that are public	83.60%	65.07%
% of VCT facilities that are private	16.40%	34.93%
% of public facilities that offer VCT	1.50%	2.25%
Total number of VCT facilities	61	682
% of PMTCT facilities that are public	100.00%	71.60%
% of PMTCT facilities that are private	0.00%	28.40%
% of public facilities that offer PMTCT	0.80%	0.93%
Total number of PMTCT facilities	29	245
% of ART facilities that are public	92.90%	76.07%
% of ART facilities that are private	7.10%	23.93%
% of public facilities that offer ART	0.40%	0.75%
Total number of ART facilities	14	181

iv. Health information system

Zonal health information system data is presented as it relates to three broad indicators: (1). resources, policies and regulation; (2). Data collection and quality; and (3). Data use.

Resources, policies, and regulation: All the states in the North East zone reported having limited state-level budgets for HIS, and selected LGAs in Yobe have dedicated resources to support HIS. No financial data were available on the level of financing for HIS. All states, with the exception of Yobe, indicated significant delays with release of funds, which has a negative impact on stocks of essential supplies.

Except for Yobe, all states reported frequent shortages of forms. Participants perceive the FMOH as being responsible for the provision of forms and registers to the states. At the time of data collection, two of six states had experienced a complete stock out of forms since January 2008.

Basic ICT infrastructure is lacking across health facilities in this zone. Borno and Adamawa have computers (without Internet connectivity) available only at the SMOH level. All other states have computer hardware in a limited (less than 50%) amount of sub-national facilities. None of the SMOH offices are connected to the Internet, and rely on cybercafés for email communication. All HMIS officers in attendance reported using their personal mobile phones for official communication, as no official fixed line or mobile phones were available. Financial and technical support is not available for ICT maintenance across the zone.

Three of five states in attendance were previously supported by the Partnership for Reviving Routine Immunization in Northern Nigeria (PRRINN) project, which provided some ICT support (hardware). Since the end of the project, no donor support has been available for HIS activities.

Every state in the North East Zone has policies and laws mandating reporting by the public and private sector on national HIS data. However, every respondent reported struggling with private sector reporting and poor enforcement of HIS policies.

Data collection and quality: Due to the shortages and stockouts reported, reporting rates across the North East zone are irregular and incomplete. Other challenges impeding systematic reporting are data transfer constraints and lack of incentives offered by vertical programs (such as a small payment for timely submission of reports or active collection of data from sites through mobile data collectors). In Bauchi, Yobe, and Borno, less than 25% of districts submit monthly and weekly surveillance reports on time. Adamawa state reported leveraging the efficient WHO program reporting system, which includes provision of motorcycles to health facilities, to substantially increase routine reporting from less than 25% to over 75%.

Although no figures were provided, respondents indicated that reporting by private sector facilities does not occur across the zone. However, all states in North East have current registries of public and private sector health facilities available, all updated within the last year (2007). Furthermore, all facilities are required to submit inventory reports yearly. Given the paucity of information collected, none of the states has ever published a health statistics bulletin.

Data use

Four of the five states in the North East zone reported having adequate capacity in the core health information sciences, while one indicated insufficient capacity at the SMOH level. Two of the five states have deployed HMIS officers in over 50% of health facilities at the sub-state level. Gombe and Yobe

states have health monitoring and evaluation officers deployed to all LGAs, but very low coverage in health facilities.

Timely data analyses are not available across the North East zone. All states reported data demand as ad hoc (driven by external pressures, i.e., politics, media, donors) versus systematic. As stated above, no state in the North East zone has ever published a summary of health statistics. The HMIS officers reported that data are never used for planning, budgeting, or fundraising activities.

There are no established feedback loops for data dissemination. Selected vertical programs prepare annual bulletins, but no state in the North East Zone publishes an annual bulletin for distribution to facilities and the general public.

v. Governance

Zonal governance data is presented according to 4 indicators: Responsiveness; Compliance, resource utilization and equity; Coordination; and Stability.

Responsiveness: There a variety of forums in the zone which are used to solicit input from concerned stakeholders about health sector priorities. The various forums bring together the SMOH and representatives of federal health establishments, LGAs, private providers, traditional healers, professional associations, PMVs, and the office of the International NGO coordinator. The table below summarizes the range of forums available in this zone.

TABLE 14:

State	State Councils in Health	Public-Private Partnership Forums	International Partners Forums	NGO Coordinators Meetings	Ad-hoc Forum for local CSOs	Multi-stakeholder forum (HERFON)
Adamawa	X					
Bauchi	X	X			X	
Borno	X	X	X	X		
Gombe	X					X
Yobe	X	X	X	X		

Compliance, resource utilization and equity

- **Consumer protection:** Professional councils and regulatory agencies can help providers, clients, and other concerned stakeholders when regulations, protocols, standards, and/or codes of conduct are violated.
- **Misuse of resources:** With the exception of the audit systems of the public service, there are no procedures for reporting, investigating, and adjudicating misallocation or misuse of resources.
- **Fighting bias and inequity in accessing health services:** No dedicated institutions exist that clients, providers, and concerned stakeholders can use to fight bias and inequity in accessing health services. CSOs can petition the health committees in the relevant State Assembly, but there is no evidence that this has actually happened.

Stability

Respondents in this zone pointed to the abolishment of the Petroleum Trust Fund in 1999 as a prime example of an abrupt policy change that affected the provision of health infrastructure and services. The Trust was created by the Abacha regime as an intervention fund to use extra earnings from petroleum product price increases to address socioeconomic infrastructure and services in health and other priority sectors. Other examples of policy changes associated with political transitions include the decision of the new Adamawa state government to build a five-star German hospital in place of the hospitals' renovation project and to change the fee structure for maternal care from free to subsidized in Bauchi.

vi. Pharmaceutical management

Pharmaceutical management within each zone is examined across several different indicators: Pharmaceutical policy, laws, and regulations; Drug selection; Drug procurement; Storage and distribution; Appropriate use; and Drug financing.

Pharmaceutical policy, laws, and regulations:

- **Pharmaceutical registration system:** All states but Borno incorrectly identified the PCN as the agency responsible for enforcing policies, laws, and regulations on registration. In contrast, only Gombe correctly identified NAFDAC as the agency responsible for enforcement.
- **Collection of data regarding the safety and efficacy of marketed pharmaceutical products:** Complaints from patients, as well as information from physicians, are directed to the DRF.
- **Licensing, inspection, and control:** All respondents except Yobe were aware of such mechanisms and correctly identified the PCN as the principal agency responsible for their enforcement. Gombe, Adamawa, and Yobe also listed a few instances where reports and statistics about licensing, inspection, or control of drugs were produced and made publicly available. Borno mentioned it had a Task Force on Fake and Counterfeit Drugs that enforces licensing and inspections every week on pharmaceutical premises. Yobe reported that the Pharmacists Council Inspection Committee does inspection on a monthly basis. In the other states, the Hospital Registration and Regulation Committee, the Regulation of Patent Medical Store Committee, and the Pharmacists State Association is responsible for this and inspect monthly, individually, or as a team.

Drug selection

None of the states knew the exact number of drugs listed in the EDL and only Bauchi, Gombe, and Yobe were knowledgeable about the year when the most recent EDL was issued. All states except Adamawa affirmed the existence of a committee responsible for managing the process of maintaining the EDL at the state level.

Drug procurement

- **Organized procurement committee:** a Drug Procurement Tenders Board exists in Bauchi, while Adamawa conducts procurement through the state's Essential Drug Program. Borno and Gombe reported that no special committee for procurement exists and that the DPS fulfilled this role. In Yobe, the SMOH's Drug Procurement and Inspection Committee fulfill this role. Bauchi, Adamawa, and Yobe reported that SOPs for procurement existed, while Borno and Gombe reported negatively. The number of drug procurements per year between 2006 and 2007 varied greatly between states ranging from 1 in Borno state to 12 procurements in Yobe state. Additionally, the number of emergency procurements ranged from 0 in Borno to at least 4 in Adamawa and more than 5 in Yobe state (See Annex 3).
- **Competitive bidding:** Gombe was the only state to respond that it procured 100% of drugs using competitive bids. Bauchi reported doing 65% of the time and other states did not respond. Respondents indicated that they did not know the reasons why procurement is not conducted using competitive bids.
- No state had a **procurement qualification process** and **none tested pharmaceutical samples** as a part of the procurement process (Adamawa did not respond). NAFDAC was cited by all states as the agency responsible for conducting testing whenever there is a procurement. In Gombe, NAFDAC involvement occurs based on the state's request.
- **Quantification:** Data are used for quantification in Gombe and Yobe. They are not used in Borno and Bauchi. Adamawa did not respond. Only Gombe and Yobe were knowledgeable about the type of data used for quantification (monthly consumption patterns, disease patterns and physician prescription patterns).

Storage and distribution

States were not knowledgeable about the agencies in charge of managing distribution. For example, Bauchi suggested DPS, Gombe suggested NAFDAC, and Yobe suggested the DRF. Borno and Adamawa did not reply. All the states reported that inventory control is guided by information in pharmaceutical ledgers and tally cards. All states reported that there are SOPs for inventory control, specifically "FIFO: First In, First Out." All states reported that distribution functions were integrated and that national standards are used for managing drug orders, transport, receipt, storage, and withdrawals. All states reported that the chance for loss was minimal due to high consumption rates. All states reported that refrigeration units with functional temperature controls exist at the national, state, and LGA levels.

Appropriate use

Functioning mechanisms or tools, besides clinical guidelines, are not in place to improve the use of drugs in hospitals or health facilities. No states reported regular reviews of prescribing practices in public facilities. For example, in Borno reviews of prescribing practices occur only in response to a complaint from the patient. In the other states, mechanisms such as monthly meetings of medical officers and pharmacists, are in place but not utilized. All states except Yobe reported that standard treatment guidelines exist and are used for basic and in-service training of health personnel.

Drug financing

All states except Adamawa reported that a pharmaceutical cost recovery policy had been introduced for secondary health facilities and that DRFs were responsible for its enforcement.

TABLE 15

State	Percentage of drug costs recovered
Adamawa	n/a
Bauchi	80%
Borno	100%
Gombe	80%
Yobe	80%

3. NORTH WEST ZONE

States: Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto, and Zamfara states

Population: 35,786,944 (2006 est.)

Poverty Incidence: 71.2%

Infant Mortality Rate: 114 per 1,000 live births

HIV/AIDS prevalence: high

Number of Health Workers: 6,032 (2007 est.)

Fertility Rate: 6.7

The North West zone comprises Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto, and Zamfara states. HIV prevalence is fairly high in this geo-political zone. In this zone, data were collected from all states except Kano and Kebbi.

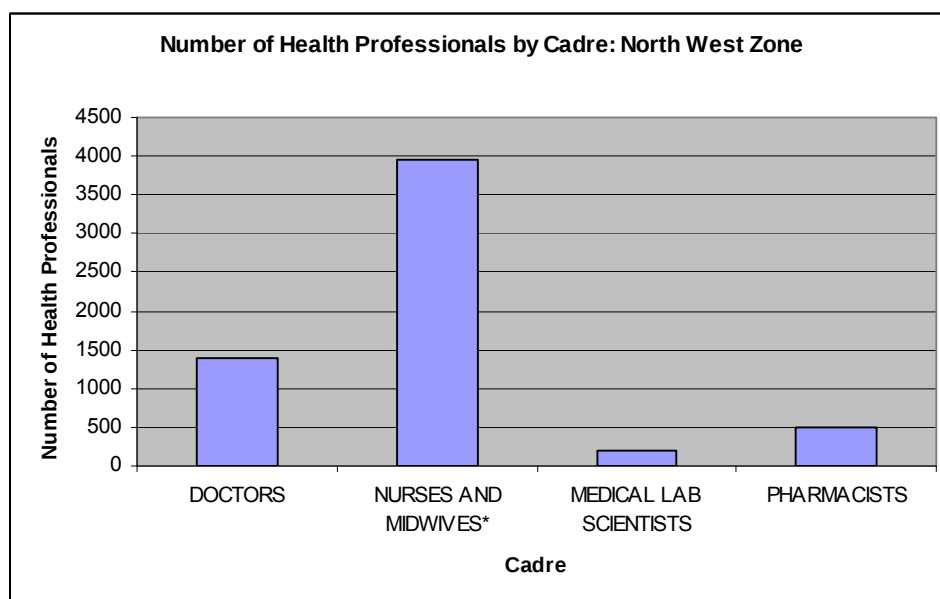
i. Human resources

HRH planning: The table below provides a breakdown of the distribution of health care workers by cadre and state. Sokoto has the highest concentration of doctors while Kaduna has the highest concentration of nurses/midwives. Jigawa has the lowest concentration of doctors and nurses/midwives while Zamfara has the lowest concentration of pharmacists and laboratory technicians. Except for Zamfara, which did not respond, all states reported that the migration of health care workers is affecting the availability of HRH within their state. All states reported a significant HRH imbalance between rural and urban areas.

TABLE 16: DISTRIBUTION OF HEALTH CARE WORKERS BY STATE, NORTH WEST ZONE

State	Doctors	Nurses And Midwives	Medical Lab Scientists	Pharmacists
Jigawa	75	241	17	16
Kaduna	610	1239	80	213
Kano	234	1001	73	168
Katsina	146	904	5	32
Kebbi	91	324	2	17
Sokoto	164	NA	22	36
Zamfara	68	232	2	20
TOTAL	1388	3941	201	502

FIGURE 11: NUMBER OF HEALTH PROFESSIONALS BY CADRE: NORTH WEST ZONE (FMOH, 2007)



All states reported having both a health staff deployment strategy and a HRH data system in place. A functioning HRH planning and management unit, with enough personnel and adequate HRH planning skills, was reported to exist in Kaduna and Sokoto states.

There is significant variation in the percentage of the state health budget dedicated to HR ranging from 31% in Sokoto to 55% in Kaduna. Zamfara did not have any data on the level of financing of HRH.

HRH policies: Respondents from all states reported that registration, certification, or licensing is required in order to practice. These activities are monitored and periodic re-registration and/or re-licensing is also required. The gap between policy and application was not determined, as monitoring data on re-licensure is lacking across the zone. No data were available on the degree or extent of re-licensure of staff in the private health sector.

All the states have salary structures for health personnel. Salary scales, developed by the state civil service commissions, are available across the zone. Salaries were reported to be paid on time and in full in all the states. Only Jigawa state believes that compensation in the public sector is competitive with the private sector.

HRH performance management: Job descriptions are reported to be available and shared with health workers employed in all states, and updated regularly in all but Katsina state.

An integrated supervision (administrative and clinical) policy was reported in all the states except in Zamfara state. The percentage of supervision visits to health centers planned and actually conducted was reported to be 60% for Kaduna state, 50% for Jigawa state, 20% for Sokoto state, and 75% for Katsina state.

A formal mechanism for individual performance planning and review for hired staff was reported to be available in all states, with reviews between personnel and supervisors reportedly conducted on a regular basis and documented in these states.

ii. Health financing¹⁹

Health financing is examined according to three overarching indicators: (1). Revenue collection, which includes the amount and sources of financial resources; (2). Pooling and allocation of financial resources, including government budget formulation and allocation; and (3). Purchasing and provider payment, including user fees and insurance schemes.

Revenue collection: Amount and sources of financial resources: As the table below demonstrates, accurate and verifiable health expenditure data are lacking in the North West zone (Table 17). Per capita health spending is low across the states that provided data. Interestingly, there appears to be a significant decline in per capita spending in Jigawa between 2006 and 2007, from nearly N360 to N85 per person. Government spending on health as a portion of total government expenditures is low across all states, ranging from 4.16% in Jigawa to 8.80% in Zamfara. Data on total health expenditures – spending by the public, private (households and insurance), as well as donors - is lacking across all states, with the exception of Zamfara. Thus, it was not possible to obtain information regarding the proportion of all health expenditures originating from public sources. Finally, data on government spending on HIV/AIDS are lacking as well. However, Jigawa was able to provide a wealth of information from the World Bank regarding the contribution to HIV/AIDS expenditures from the government. In the absence of total health expenditure data, real-term data on HIV/AIDS financing was calculated as a percentage of government expenditures for health.

TABLE 17: REVENUE COLLECTION INDICATORS IN NORTH WEST ZONE

Indicator	Updated Data						Data from Data Collection Workshop			
	Jigawa		Kaduna		Sokoto		Zamfara		Katsina	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Per capita total health expenditure (naira)	N 360.00	N 57.00	N404.21	NA	730.99	796.97	NP	NP	NP	NP
Government expenditure on health as % of total government expenditure	3.21%	4.16%	5.60%	NA	6.50%	8%	9.80%	8.80%	NP	NP
Public (government) spending on health as % of total health expenditure	NA	NA	NA	NA	NA	NA	1.10%	1.10%	NP	NP
Public (government) spending on HIV/AIDS as % of total health expenditure	NA	0.91%	7.60%	10.50%	NA	NA	NP	NP	NP	NP

Sources: Jigawa: Department of Planning, Research and Statistics (DPRS) and State Budget 2006-2007(projection); Kaduna: Approved estimates, 2007, and Detailed Report of the Accountant General as at 31/12/06; Sokoto: Budget book 2006-2007, Finance Dept., and HMIS office; Zamfara and Katsina: Health System Assessment Data Collection Workshop, July 16-18, 2008, Abuja.

¹⁹ Kano and Kebbi were not available for the data gathering exercise. Jigawa, Kaduna, and Sokoto provided revised data following the data collection workshop, but only Jigawa and Kaduna submitted supplementary information to validate the data provided on resource allocation and other topic areas. Thus, it is not clear whether the information provided is actual expenditures or approved budget allocations for the other states. Findings from Kano and Zamfara are based on the information provided during the data collection workshop, as these states did not send revised or updated data following the workshop. Kaduna expenditures do not include spending on Federal Institutions, Local Government and Private Health providers.

Pooling and allocation of financial resources: Government budget formulation and allocation: The process for budget formulation is similar across the states in the North West zone. The Ministry of Budget and Planning sends a letter to all line ministries through the State Health Commissioner, who then forwards the letter to the Director of Planning and Research within the State Ministry of Health (SMOH). Following this, the budget officer requests the departments in the SMOH to develop their respective budget requests. These requests are reviewed during a meeting chaired by either the State Health Commissioner or the Director of Planning. Ultimately, the budget is defended to the Ministry of Finance, which subsequently justifies the request to the Ministry of Economic Planning. Following this justification, the Ministry of Health defends the budget request to the Assembly House, which approves the budget for expenditure. Once this approval is received, the budget request is sent back to the Ministry of Economic Planning and is subsequently inserted into the overall State budget and finally allocated to the Ministry of Finance which releases the funds.

In Kaduna and Sokoto, there is a ceiling set by the Ministry of Finance for Ministry of Health budgets, which is flexible in Kaduna if off-budget provisions are made for various projects. Within the ceiling, certain programs are prioritized. In Jigawa, there is no ceiling but the Millennium Development Goals (MDGs) are taken into consideration when the budgets are being developed. For the development of the 2008 budget in Sokoto, development partners were included in the planning process.

Budgets are structured around sub-heads or line items in all states. Allocations by line item are based on demand and the presence of evidence to support the demand. Jigawa was the only state in the zone (and one of the only states in the assessment overall) that was able to provide data on allocations to hospital and non-hospital facilities, as a proxy indicator of allocations for inpatient and outpatient care. The allocations did not change much between 2006 and 2007, at approximately 12 percent for non-hospital facilities and 88 percent for hospital facilities.

The autonomy of Ministry of Health facilities varies across the zone. In Jigawa, facilities have autonomy to spend their revenues, and subsequently report these expenditures to the State Ministry of Health. In Kaduna, autonomy exists for spending recurrent costs. In Sokoto, a Hospital Management Board oversees expenditures, but the specialist hospital has autonomy to spend based on its approved budget. In all states, as in other zones, there is an internal auditor which reports on expenditures to the Auditor General and State Health Commissioner. In Kaduna, the Auditor General's report is published in the newspaper.

Purchasing and provider payment: In Jigawa and Sokoto, there is a National Health Insurance scheme which is for civil servants and funded by premiums paid by this group. Deferral and exemption schemes exist in Sokoto, Jigawa, and Kaduna. Information on this indicator was not provided for Katsina and Zamfara. Services or populations covered include: malaria, accident victims, children under five, maternal and child care, emergency obstetric care, TB, HIV (Sokoto), students, inmates, and the poor and indigent. For those not covered by deferral and exemption schemes, fees are paid for various components of outpatient and inpatient care, such as registration cards and prescribed medicines. In Sokoto, a portion of fees is pooled at the facility level. Fees retained at facilities in Jigawa, Kaduna, and Sokoto are used to purchase consumables such as generators and laundry. Any decisions at health facilities regarding the use of IGR have to involve the health board, which includes members of the community.

Contracting out to private providers seems to be gaining ground in Jigawa and Kaduna. Both curative and preventive services can be contracted to private providers, but currently there is no contracting to civil society. In Kaduna, the government—not the facility—decides who will receive the contract. In Kaduna and Sokoto, there are medium- and long-term strategies which exist, from which annual plans are extracted. In Jigawa, this type of strategic planning is in progress. Performance-based financing and

incentive programs are not widespread, but recognition of staff for good performance is in place in Sokoto. In Jigawa, under the DFID-funded PATHS Project, facility performance was measured by ISS and PPRHAA.

iii. Service delivery

Service delivery data for this zone is summarized in Table 18. The following narrative provides additional insights captured within three service delivery indicators: (1) Service provision capacity ;(2) HIV/AIDS service provision; and (3) The private sector share of HIV/AIDS service provision.

General service provision capacity

Public sector hospital capacity is relatively low, with 4.3 beds for every 10,000 people as compared to a national average of 9.2. Furthermore, this low availability of public sector beds is relatively uniform across the zone with a range of 2.9 to 6.5 public sector hospital beds per 10,000.

The zone has 1.5 public sector primary care facilities per 10,000 people, similar to the national average of 1.6 facilities per 10,000 people. Differences between states within the zone are small, ranging from 1.1 to 2.2 facilities per 10,000 people.

HIV/ AIDS service provision

VCT: Only 1.8% of public sector facilities in the zone report offering any VCT services. The smallest proportion of public sector facilities in Katsina and Kaduna offer any VCT (0.6% and 1.6%). The number of facilities offering VCT ranges from .6% in Katsina to 3.2% in Zamfara. At 0.5%, the proportion of public sector facilities offering PMTCT is even more limited in this zone and below the national average of 0.9%. Inter-state differences, with ranges stretching from 0.2% to 1.1%, are over-shadowed by the overall lack of availability. A similar pattern is visible with reported availability of ART in public sector facilities. Only 0.5% of public facilities report providing any ART, with a range of 0.2% to 1.2%.

Laboratory capacity: On a more positive note, 6.6% of public facilities report having a laboratory which is higher than the national average of 6.1%. 3%, 4% and 13% of public facilities in Katsina, Jigawa and Kaduna respectively report having a laboratory.

Private sector share of HIV/ AIDS service provision

The presence of the private sector in HIV/ AIDS service provision appears to be limited in the North West. Only 6.9%, 5.6% and 15.0% of VCT, PMTCT and ART facilities are in the private sector. (Nigeria Service Provision Assessment, 2008).

Table 18:

Indicator	North West	Nigeria
	Average	Average
Public sector hospital beds per 10,000 people (<i>Range</i>)	4.3 (2.9, 6.5)	9.2 (2.1, 32.0)
Public sector primary care facilities per 10,000 people (<i>Range</i>)	1.5 (1.1, 2.2)	1.6 (0.3, 3.4)
% of public sector facilities that currently offer VCT (<i>Range</i>)	1.80% (0.6, 3.2)	2.20% (0.3, 13.1)
% of public sector facilities that currently offer PMTCT (<i>Range</i>)	0.50% (0.2, 1.1)	0.90% (0.2, 6.9)
% of public sector facilities that currently offer ART (<i>Range</i>)	0.50% (0.2, 1.2)	0.70% (0.1, 7.4)
% of public sector facilities that currently have a laboratory (<i>Range</i>)	6.60% (3.1, 13.2)	6.10% (0.5, 50.8)
% of VCT facilities that are public	93.10%	65.07%
% of VCT facilities that are private	6.90%	34.93%
% of public facilities that offer VCT	1.80%	2.25%
Total number of VCT facilities	72	682
% of PMTCT facilities that are public	94.40%	71.60%
% of PMTCT facilities that are private	5.60%	28.40%
% of public facilities that offer PMTCT	0.50%	0.93%
Total number of PMTCT facilities	18	245
% of ART facilities that are public	85.00%	76.07%
% of ART facilities that are private	15.00%	23.93%
% of public facilities that offer ART	0.50%	0.75%
Total number of ART facilities	20	181

iv. Health information system

Zonal health information system data is presented as it relates to three broad indicators: (1). resources, policies and regulation; (2). Data collection and quality; and (3). Data use.

Resources, policies, and regulation: This section aims at assessing the financial and/of physical resources which are available to support HIS activities. Kaduna and Sokoto indicated having highly adequate state and LGA-level budgets for HIS activities (both recurrent and capital), and reported no issues with disbursement. Jigawa has a dedicated budget but faces disbursement issues, whereas Katsina²⁰ and Zamfara have no budget support for HIS activities. None of the respondents provided detailed information on the HIS budget in their states.

The availability of recording forms and registers is a fundamental component of HIS. Jigawa, Kaduna, and Sokoto do not experience shortages or stockouts of forms or registers. Katsina and Zamfara suffer from shortages of forms and registers, which adversely affects the recording of health information.

Basic ICT infrastructure is available at state and LGA levels in Kaduna and Jigawa. All other states' ICT capacity is concentrated at the SMOH level. No health facilities in this zone have ICT equipment provided by the SMOH. Connectivity is only available at the SMOH level. Kaduna, Jigawa, and Sokoto have specific budget lines for maintenance of ICT equipment. Katsina and Zamfara do not provide any financial allocation for ICT maintenance. There is a marked difference in ICT capacity between donor-supported states (Kaduna and Jigawa) and states not supported by donors.

All states in the North West zone have a state-level HIS policy, which provides a regulatory framework for the production of health information. Two of the five responding states (Jigawa, Kaduna) reported full enforcement of the policy while three (Katsina, Sokoto, and Zamfara) do not enforce the policy.

Data collection and quality: There are significant variations in reporting rates in the North West zone. Jigawa and Kaduna reported that 75% of districts submit minimum core indicator reports on time. The other states (Sokoto, Zamfara, and Katsina) suffer from very low reporting (< 25%). Most states in the zone experience difficulties with private sector reporting, with only Kaduna receiving HIS data from private, not-for-profit institutions. All states in the zone have current and complete registries of all health facilities (public, private, NGO etc) in their respective states. Guidelines for data collection, based on the state HMIS policy, are available across the zone but only partially implemented. Annual reporting on infrastructure and inventory is only mandatory in three states (Kaduna, Sokoto, and Zamfara), and there is no harmonized reporting on commodities (drugs, lab supplies) in any of the states in this zone.

None of the states in the North West zone have produced a state health statistics report in the past two years.

Data use: The North West zone displays an interesting trend with respect to the availability of sufficient, qualified HIS personnel at the state and sub-state level. Four of the five states reported having partially adequate resources at the central level. However, sub-state levels are very well equipped with respect to HIS staff. Four of the five states indicated that more than 50% of health offices have a designated, full-

²⁰ Katsina State has no SMOH budget for HIS activities, but the State Primary Health Care Development Agency has a HIS budget

time health information staff member while Jigawa reported having a 100% staffing rate at the sub-state level.²¹

There are gaps between data analysis and use across the North West zone. With the exception of Kaduna, demand for data by senior policymakers is generally ad hoc and driven by external pressures. Jigawa and Kaduna policymakers are reported to systematically use data to inform budget, planning frameworks, and resource mobilization activities. In other states, data are essentially used for diagnostic purposes, but do not inform plans or budgets.

Systems for providing feedback to health facilities on performance and the general public on the health of the population are not in place across the North West zone.

v. Governance

Zonal governance data is presented according to 4 indicators: Responsiveness; Compliance, resource utilization and equity; Coordination; and Stability.

Responsiveness: Forums to solicit input from concerned stakeholders about health sector priorities are held at least once a year. Stakeholders include representatives of the line ministries, private providers, tertiary institutions, FBOs, LGAs, CBOs, the Nigeria Drug Law Enforcement Agency (NDLEA), NAFDAC, Prisons Services, Police, and the media. The table below summarizes the range of forums available in this zone.

TABLE 19:

State	State Councils in Health	Public-Private Partnership Forums	International Partners Forums	NGO Coordinators Meetings	Ad-hoc Forum for local CSOs	Multi-stakeholder forum (HERFON)
Jigawa	X					
Kaduna	X	X				
Katsina	X		X			
Zamfara	X					
Sokoto	X		X			

Compliance, resource utilization and equity

- **Consumer protection:** There are no dedicated organizations that help providers, clients, and other stakeholders when regulations and standards are violated, except in Sokoto where the SMOH's Inspectorate Department performs the role.
- **Misuse of resources:** Procedures for reporting, investigating, and adjudicating the misallocation or misuse of resources consist mainly of standard public service audit procedures (in respect to public providers). In Jigawa, stakeholders and community health representatives may also be involved in monitoring. In Sokoto, the Ministry of Budget and Economic Planning is responsible for monitoring resource utilization.

²¹ According to the HMIS officer from Jigawa state, all LGAs have monitoring and evaluation officers, all secondary health facilities have MROs, and primary health facilities have HROs.

- **Fighting bias and inequity in accessing health services:** In Sokoto, clients, providers, and concerned stakeholders can ask for clinical investigations and judicial redress in order to challenge cases of bias or inequity. In Kaduna, Katsina, and Zamfara, they can approach the state assembly for the purpose. In Jigawa, they can use the ISS and PPRHAA initiatives with the support of the Gunduma Health System Law. These are initiatives introduced by the DFID-PATHS project under its Improved Management through Participatory Appraisal and Continuous Transformation (IMPACT) approach in partnership with the Jigawa state government.

Coordination

- **Intra-sectoral and inter-governmental coordination:** In all states, the mechanisms for coordinating and harmonizing actions across sectors and tiers include those listed for responsiveness, with the addition of the NCH for inter-state coordination. In Jigawa, there is also the State Inter-Agency Coordination Committee (SIACC). In Sokoto there are SACA and special programs such as the State Eye Care Program and Polio Program, all of which coordinate activities across sectors and between state and LGAs.
- **Donor coordination:** the State Ministry of Economic Planning is responsible for donor coordination. In Jigawa it is supported by the SIACC, while in Sokoto, it works with the SMOH. Donor coordination meetings are held quarterly in Jigawa and once a year in Sokoto. There is no information on the regularity of such meetings in the other states.

Stability

There are no cases of policy instability in this zone. Political considerations have influenced the fluctuations in the capital and recurrent ratios of the health budget in Jigawa. In Sokoto, such fluctuations were attributed to rising costs of supplies and wages and population growth.

vi. Pharmaceutical management

Pharmaceutical management within each zone is examined across several different indicators: Pharmaceutical policy, laws, and regulations; Drug selection; Drug procurement; Storage and distribution; Appropriate use; and Drug financing.

Pharmaceutical policy, laws, and regulations

- **Pharmaceutical registration system:** State representatives were not clear about the identity of the agency responsible for enforcing policies, laws, and regulations on registration; all states identified both the PCN and NAFDAC as the agencies for the enforcement of policy, laws, and regulations on registration. A correct response would have only identified NAFDAC.
- **Collection of data regarding the safety and efficacy of marketed pharmaceutical products.** All states responded that patients would take the initiative to report violations to the hospital medical director. Through the Jigawa Medicare Supply Organization (JIMSO), Jigawa was the only state with a systematic process to collect data from both patients and physicians.
- **Licensing, inspection, and control:** Respondents correctly identified the PCN at the federal level and the SMOH's DPS as the principal agencies responsible for enforcement on these issues.

Drug selection

None of the respondents were knowledgeable about when the most recent EDL was issued. All states except Katsina and Jigawa affirmed the existence of a committee responsible for managing the process of maintaining the EDL at the state level.

Drug procurement

- **Organized procurement committee:** In Katsina, the DPS advises on procurement with the PCN's involvement. In Kaduna, the Procurement Unit includes members from all SMOH departments except due process and is situated in the Governor's office. In Jigawa, procurement is done through JIMSO. Sokoto does not have a committee, as the DPS is responsible for procurement. Zamfara does not have a committee for procurement. All states reported that there are SOPs for procurement developed specifically for this purpose. Also, all states reported using generic names for procurement. The number of planned and emergency drug procurements per year between 2006 and 2007 ranged from 0 in Sokoto state to 4 in Jigawa and Katsina states. (See Annex 3)
- **Competitive bidding:** Katsina and Kaduna responded that they procured all drugs through competitive bidding. Sokoto and Jigawa procure none of their drugs competitively. No reasons were cited for not procuring drugs through competitive bids.
- **Qualification:** All states had a procurement qualification process, although only Kaduna, Zamfara, and Jigawa tested pharmaceutical samples as a part of the procurement process. All states reported that NAFDAC was responsible for testing samples and that the system in their respective states did not have the capacity to conduct such testing.
- **Quantification:** All states responded that consumption data were used for quantification. Katsina uses the disease pattern and patient attendance, Kaduna uses population per health facility, and Jigawa uses patient consumption data and disease patterns. The other states did not report on this issue.

Storage and distribution

The SMOH was listed by all states except Jigawa as the agency responsible for managing drug distribution. In Jigawa, JIMSO fulfills this role. None of the states reported on what kind of information or SOPs are used for inventory control. No states reported that distribution functions were contracted out to the private sector. All states reported that drugs are stored under the conditions specified under standard operating procedures. Katsina and Sokoto reported inventory loss of 0.01% and 10%, respectively, but did not give a reason for these losses. The other states did not respond. All states reported that refrigeration units with functional temperature controls exist at national, state, and LGA levels.

Appropriate use

All states reported having SOPs and standard orders to improve the use of drugs in health facilities and committees to enforce them (except in Sokoto). These committees meet three times per year in Zamfara and weekly in Jigawa. Other states did not provide information. All states reported that standard treatment guidelines exist and are used for basic and in-service training of health personnel, although it was not clear whether the use of treatment guidelines is monitored. Results are only

available for the general public in Katsina, Kaduna, and Zamfara. All states responded that there are SOPs for dispensing drugs in public facilities.

Drug financing

All states reported that a pharmaceutical cost recovery policy had been introduced, although the agencies responsible for enforcing this policy varied by state. The responsible agency is the SMOH and the state PCN chapter in Katsina and Sokoto, the State Medical Store in Kaduna, and JIMSO and the Gunduma health system board in Jigawa. Zamfara did not report.

TABLE 20

State	Percentage of drug costs recovered
Jigawa	100%
Kaduna	n/a
Katsina	75%
Zamfara	n/a
Sokoto	70%

4. SOUTH EAST ZONE

States: Abia, Anambra, Ebonyi, Enugu, and Imo states

Population: 16,381,729 (2006 est.)

Poverty Incidence: 26.7 %

Infant Mortality Rate: 66 per 1,000 live births

HIV/AIDS prevalence: low to moderate levels of HIV infection (under 4%)

Number of Health Professionals: 11,075 (2007 est.)

Fertility Rate: 4.1

The South East zone includes Abia, Anambra, Ebonyi, Enugu, and Imo states and has low to moderate levels of HIV infection (under 4%). In this zone, data were collected from all states except for Abia, which provided data only on the governance and human resources modules.

i. Human resources

Zonal HRH data is presented according to 3 types of indicators: HRH planning, policies, and performance management.

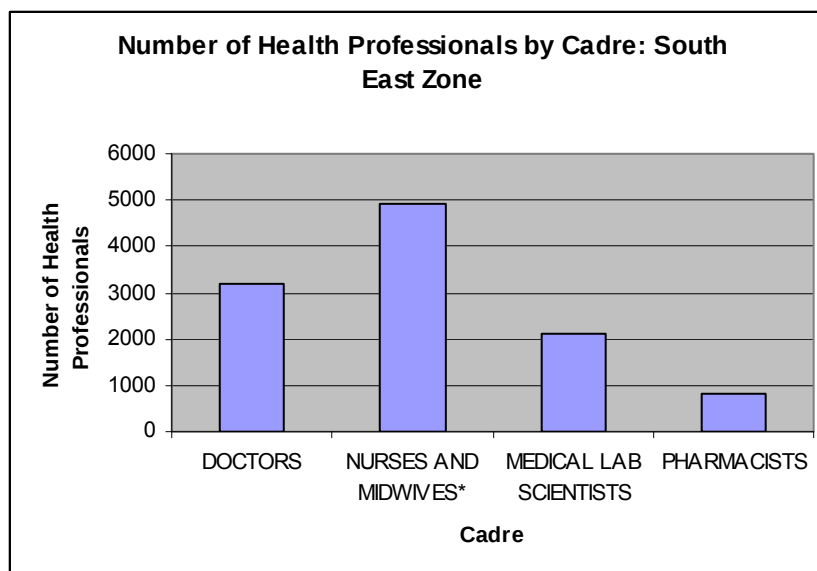
HRH planning

The table below provides a breakdown of the distribution of health care workers by cadre and state. Ebonyi has the highest concentration of doctors and pharmacists, while Abia has the highest concentration of nurses/midwives and laboratory technicians. Imo, Anambra, and Enugu are the most poorly staffed within the zone. Except for Abia, all states reported that the migration of health care workers is affecting the availability of HRH within their state. Anambra, Enugu, and Abia states reported a significant HRH imbalance between rural and urban areas.

TABLE 21: DISTRIBUTION OF HEALTH CARE WORKERS BY STATE, SOUTH EAST ZONE (2007)

State	Doctors	Nurses And Midwives	Medical Lab Scientists	Pharmacists
Anambra	669	1214	633	232
Ebonyi	130	199	34	38
Enugu	1017	NA	487	241
Imo	914	2074	520	138
Edo	480	1427	436	192
TOTAL	3210	4914	2110	841

FIGURE 12: NUMBER OF HEALTH PROFESSIONALS BY CADRE: SOUTH EAST ZONE (FMOH, 2007)



Anambra, Enugu, and Ebonyi states reported having a health staff deployment strategy in place and Anambra, Enugu, and Abia states have a HRH data system. The degree to which these HRH data systems function (completeness of data, use of information) was not known by the respondents.

Only Enugu and Abia states reported having functioning HRH planning and management unit with enough personnel and adequate HRH planning skills.

The percentage of the state health budget dedicated to HRH is 51.2% in Imo state and 5.2% in Anambra state. Information on state health budget allocations for HRH was not available from the other states.

HRH policies: Respondents reported that registration, certification, or licensing is required across all states in order to practice. Monitoring of this system was reported by all states, and periodic re-registration and/or re-licensing was also required in all states.

All states except for Abia have salary structures for health personnel. Respondents from all states indicated that although salaries are paid in full and on time, compensation in the public sector is not competitive with the private sector.

HRH performance management: Across all states in the zone, respondents reported that job descriptions are available, updated regularly, and shared with health workers.

An integrated supervision (administrative and clinical) policy was reported in all states. The percentage of supervision visits to health centers planned versus actually conducted was reported to be 100% in Imo state, 89% in Enugu, 80% in Ebonyi, and 50% in Abia. The information was not available for Anambra state.

A formal mechanism for individual performance planning and review for hired staff was reported to be available in all states. With the exception of Abia, reviews between personnel and supervisors are conducted on regular basis and documented.

ii, Health financing²²

Health financing is examined according to three overarching indicators: (1). Revenue collection, which includes the amount and sources of financial resources; (2). Pooling and allocation of financial resources, including government budget formulation and allocation; and (3). Purchasing and provider payment, including user fees and insurance schemes.

Revenue collection: Amount and sources of financial resources: With data on per capita expenditures from only two states for 2006 and one state for 2007, it is difficult to discuss patterns in the South East zone related to this indicator. Government spending on health as a percentage of total government expenditure ranges across the zone from 3.34% in Anambra to 40% in Ebonyi in 2007. Similarly, there is a wide range of reported data for government spending on health as a percentage of total health expenditure, from 1.2% in Anambra in 2006 to 70% in Ebonyi in 2007. Data on government spending on HIV/AIDS as a percentage of total health expenditure are widely unavailable.

TABLE 22: REVENUE COLLECTION INDICATORS IN SOUTH EAST ZONE

Indicator	Updated Data		Data from Data Collection Workshop					
	Anambra		Ebonyi		Enugu		Imo	
	2006	2007	2006	2007	2006	2007	2006	2007
Per capita total health expenditure, naira	N18,359	N28,092.4	356.61	NA	NP	NP	NA	NA
Government expenditure on health as % of total government expenditure	5.17%	3.34%	30%	40%	NP	NP	9.93%	4.35%
Public (government) spending on health as % of total health expenditure	1.20%	NA	60%	70%	NP	NP	33.78%	59.57%
Public (government) spending on HIV/AIDS as % of total health expenditure	NA	0.09%	10%	20%	NP	NP	NA	NA

Sources: Anambra: Anambra state estimates; Ebonyi, Enugu, and Imo: Health System Assessment Data Collection Workshop, July 16-18, 2008, Abuja.

Pooling and allocation of financial resources: Government budget formulation and allocation: The Ministry of Health budget formulation process is similar across all states in the zone. The process initiates with a call for the budget from the Planning Commission. A pre-budget meeting is held at the SMOH, during which priorities are outlined, the budget from the previous year is reviewed, and new priorities are set. The purpose of this meeting is to determine the direction of the coming budget cycle and the possible disbursement of funds. Stakeholders make inputs and ultimately, a submission to the Planning Commission. The SMOH defends the budget request, based on determined priorities by the Minister of Health, the Permanent Secretary, and all Directors. The Planning Commission then allocates funds and sends the budget proposal to EXCO, which then subsequently sends it to the House of Assembly, which reviews the SMOH budget within the overall context of state priorities. The House then has a discussion with the Planning Department and invites the SMOH to explain if there are any

²² Abia State did not participate in the health financing component of the data collection workshop. Anambra State submitted updated data following the data collection workshop, but supporting documentation was not submitted from Anambra State or any other state in the zone. Thus, the data presented have not been verified.

questions. The budget proposal is finalized and returned to EXCO, and then returned to Planning. The final step is fund disbursement to the SMOH.

The Planning Commission sets the budget envelope. If new priorities arise (i.e. if there is an emergency situation such as an outbreak) it is possible to receive supplementary funding. The budget is structured around sub-heads or line items, and the budget execution rate from the previous year helps to determine the allocation for the following year. In Imo, there is also responsiveness to the reality that unforeseen issues may arise and require additional funding mid-year. There is also an emphasis on zero based budgeting. Targets such as the MDGs also inform budget allocation. Imo has allocated significant resources for immunization, MCH, etc. All states have interim budgetary review processes to monitor and evaluate execution rates.

Ministry of Health facilities have varying degrees of autonomy. In Enugu, capital spending is controlled by the Commissioner and managed by the Director of Finance. In Anambra, recurrent spending is controlled by the Ministry. In Ebonyi, facilities have autonomy once impress is given. Finally, facilities in Imo have the autonomy to determine how to spend recurrent (not capital) resources, but funding is a problem. The provisions in the budget are not all funded. The Hospital Management Board decides how much impress to give to facilities in all states. In addition to impress, the facilities retain IGR. All states have both internal and external auditors that monitor expenditures.

Purchasing and provider payment: In Anambra, there is a private community-based health insurance scheme. A National Health Insurance scheme is also being initiated. The community-based scheme covers inpatient and outpatient care, drugs, and is financed through premiums and subsidies from tax revenues, charities, and contributions from civil servants. The insurance scheme in Ebonyi covers outpatient care.

All of the states reported some type of deferral and exemption scheme, which covers populations such as pregnant women, children under five, the elderly and the poor, and covers services such as malaria, TB, immunizations, and ART (in Imo state only). In Enugu and Imo States, facilities that provide services under the waiver and exemption schemes are reimbursed for lost revenue by the State Government. Facilities in Enugu retain 70 percent of IGR at the facility-level, and pool the remaining 30 percent.

Contracting out with the private sector is minimal in the South East zone. Only Imo State reported having contracted with private providers, most of whom are primarily specialists in areas such as gynecology. Performance-based financing schemes are non-existent, but incentives such as plaques or other rewards (i.e. good will, expedient disbursement of procurement items, etc.) for good performance are given to individuals. States also reported that there are disincentives for poor performance, such as queries and investigations for deviances from protocol.

iii. Service delivery

Service delivery data for this zone is summarized in Table 23. The following narrative provides additional insights captured within three service delivery indicators: (1) Service provision capacity ;(2) HIV/AIDS service provision; and (3) The private sector share of HIV/AIDS service provision.

General service provision capacity

The ratio of public sector hospital beds in the zone (12.1 for every 10,000 people) is above the national average (9.2 per 10,000). This relatively high average masks important intra-zone disparities, ranging from 2.6 to 27.8 among states. Enugu and Anambra have especially small numbers of beds in the public sector relative to the population (2.6 and 4.1, respectively). Imo, on the other hand, has considerably

more public sector hospital beds than the average (27.8 for every 10,000 people). This zone has only 1.2 public primary care facilities per 10,000 people, less than the national average of 1.6. Once again, Anambra and Imo have less than one public sector primary care facility for every 10,000 people, while Ebonyi and Enugu respectively have 1.2 and 1.7 facilities per 10,000 people.

HIV/ AIDS service provision

VCT services are offered by 1.2% of public sector facilities in the zone, which is less than the national average of 2.2%. The proportion of public facilities that reported VCT provision ranges from 0.5% in Ebonyi to 2.7% in Anambra. A slightly lower percentage of public sector facilities in the South East offer PMTCT services (0.8%) than public facilities in Nigeria as a whole (0.9%). Although there are some differences between states (range: 0.3% to 1.9%), overall levels of provision are so low that expanding PMTCT services should be a zone-wide priority. 0.9% of public sector facilities offer ART services, which is higher than the national average of 0.7%. Although provision varies by state, with Imo and Ebonyi reporting especially low levels of ART provision (under 0.5% of public facilities), there is a clear need to focus on all states in this zone.

Laboratory capacity: 8.3% of public facilities in the zone reported having a laboratory, which is higher than the national average of 6.1%. There is a strong disparity in laboratory availability in Anambra and Enugu (2.1% and 6.3% of public facilities) compared with Ebonyi and Imo (13.8% and 11.8%, respectively).

Private sector share of HIV/ AIDS service provision

The private sector share of current HIV/AIDS service provision is fairly large: 63.5%, 57.1%, and 33.3% of facilities providing VCT, PMTCT, and ART are private. The private sector is key to current provision of VCT services in Anambra (71%), Ebonyi and Enugu states (both over 50%). Over half of all facilities providing PMTCT services in the same states are private. Between a quarter and a third of all facilities providing ART services in Anambra, Ebonyi, and Enugu, and half in Imo state are private.

TABLE 23

Indicator	South East	Nigeria
	Average	Average
Public sector hospital beds per 10,000 people <i>(Range)</i>	12.1 (2.6, 27.8)	9.2 (2.1, 32.0)
Public sector primary care facilities per 10,000 people <i>(Range)</i>	1.2 (0.8, 1.7)	1.6 (0.3, 3.4)
% of public sector facilities that currently offer VCT <i>(Range)</i>	1.20% (0.5, 2.7)	2.20% (0.3, 13.1)
% of public sector facilities that currently offer PMTCT <i>(Range)</i>	0.80% (0.3, 1.9)	0.90% (0.2, 6.9)
% of public sector facilities that currently offer ART <i>(Range)</i>	0.90% (0.3, 1.4)	0.70% (0.1, 7.4)
% of public sector facilities that currently have a laboratory <i>(Range)</i>	8.30% (2.1, 13.8)	6.10% (0.5, 50.8)
% of VCT facilities that are public	36.50%	65.07%
% of VCT facilities that are private	63.50%	34.93%
% of public facilities that offer VCT	1.20%	2.25%
Total number of VCT facilities	52	682
% of PMTCT facilities that are public	42.90%	71.60%
% of PMTCT facilities that are private	57.10%	28.40%
% of public facilities that offer PMTCT	0.80%	0.93%
Total number of PMTCT facilities	28	245
% of ART facilities that are public	66.70%	76.07%
% of ART facilities that are private	33.30%	23.93%
% of public facilities that offer ART	0.90%	0.75%
Total number of ART facilities	21	181

iv. Health information system

Zonal health information system data is presented as it relates to three broad indicators: (1). resources, policies and regulation; (2). Data collection and quality; and (3). Data use.

Resources, policies, and regulation: All South East zone states except Anambra have dedicated budgets for HIS.²³ Enugu has both state and LGA-level budgetary allocations to support HIS. Every respondent indicated that resource levels are limited and that delays or non-disbursement of funds is frequent.

Two states (Anambra and Enugu) do not experience shortages or stockouts of required forms and registers. Imo has shortages, which it attributes to delays in the release of the budget. Ebonyi has been experiencing a stockout of forms since 2007. Variations in the level of basic ICT infrastructure are apparent across the South East zone. Ebonyi has no computer equipment at the sub-state level, whereas Anambra, Enugu, and Imo have deployed computers in over 40% of their sub-state locations. However, frequent power outages negatively affect ICT equipment usage and lifespan. With the exception of Enugu, there are no budgets for ICT maintenance. Lack of Internet connectivity is an additional challenge facing all states in this zone.

All states in the South East zone receive technical and financial support from the World Bank HSDP project for HIS activities, and Enugu was also a PATHS-I focus state.

State HMIS policies are available in all states, but only Enugu reports enforcing the policy.

Data collection and quality: Reporting on the minimum core set of indicators occurs on a regular basis in Anambra, Ebonyi and Enugu. Imo reports poor reporting on core indicators. Enugu reports a high rate of timely submission of surveillance reports (75%>). The other states receive less than 50% of surveillance reports on time, with Imo indicating that data is routinely two months late.

Imo, Enugu, and Anambra do not collect any data from the private health sector, and Enugu only receives data from selected donor-funded private, not-for-profit facilities. Nevertheless, all states have current and complete facility registries, including private and public facilities. These registries are updated on a yearly basis.

Data management procedures, based on the state HMIS policy, are available in this zone and are partially implemented in the public sector. Respondents indicated that the guidelines are not enforced in the private sector, and are only used at secondary-level facilities in the public sector.. All states in South East zone receive reports on physical inventory and infrastructure, as well as on commodities. Anambra, Imo, and Ebonyi produce annual state summary reports with HIS information.

Data use: There are marked differences in availability of staff for data compilation and analysis across the zone. Enugu has adequate capacity at that SMOH level, and reports that 100% of health offices at the sub-state level have designated, full-time health information officers.²⁴ Anambra, Imo, and Ebonyi all reported insufficient staff at the SMOH level, and no full-time HIS staff at the sub-state level. With the exception of Enugu, demand for health data by policymakers was described as ad hoc and driven by

²³ Ebonyi reports having an annual budget of 4.2 million naira per annum. Imo reports 10 million/annum. Anambra's HIS activities are exclusively supported by the HSDP program

²⁴ Staff at sub-state level are either MROs or HROs.

external pressure. Few data products are produced across the zone. The most recent annual summary of health statistics was published by Imo in 2005.

All respondents indicated a disconnect between data and policy making, with health information used to describe problems, but not inform plans, budgets, or frameworks. Feedback loops to health facilities in Anambra, Imo, Enugu, and Ebonyi are weak. While selected vertical programs provide feedback to service delivery sites, there is no integrated mechanism for providing feedback to health facilities and the general public.

v. Governance

Zonal governance data is presented according to 4 indicators: Responsiveness; Compliance, resource utilization and equity; Coordination; and Stability.

Responsiveness: SCH participants typically include political leaders and technical experts from the SMOH and LGAs, professional associations, representatives of mission hospitals, opinion leaders, NGOs, and traditional rulers. The outcomes of the SCHs are disseminated to the public and relevant stakeholders through communiqués issued through the media as well as resolutions circulated to participants and other relevant institutions such as donors and international development partners. The SCHs are expected to meet at least once each year, following the pattern of the NCH. In practice, however, there is no regularity to these meetings. The table below summarizes the range of forums available in this zone.

TABLE 24

State**	State Councils in Health	Health Data Coordinating Councils
Anambra	X*	X
Ebonyi	X*	X
Enugu	X	X
Imo	X	

*Anambra - no SCH meeting since 2005; Ebonyi – no SCH meeting since 2006

** States did not discuss PPP forums, International Partners Forums, NGO coordinators meetings or HERFON meetings

Compliance, resource utilization and equity

Consumer protection: There is no organized consumer protection movement in any of these states. In Ebonyi and Enugu states, NGOs and professional associations randomly raise issues around consumer protection. In Anambra, the Village Development Committees (VDCs) also get involved. Abia said it had a consumer movement that was not ‘streamlined’ in terms of how frequently it convenes.

Misuse of resources: In Anambra, Ebonyi, Enugu, and Imo, the mechanisms for reporting, investigating, and adjudicating misallocation or misuse of resources include petitions, phone calls, phone-ins on radio shows, supervisory visits, and Q&A sessions with visiting officials. In Abia they can raise issues of bias and inequity in accessing health services through the suggestion boxes in the health facilities as well as Servicom.

Fighting bias and inequity in accessing health services: In each of the states the same mechanisms mentioned above are available for reporting, investigating and fighting bias and inequity in accessing health services. Further, in Abia the public and the SMOH can raise issues of bias and inequity in accessing health services through the suggestion boxes in the health facilities as well as Servicom.

They can also call on the support of the local FIDA (the international federation of women lawyers), the social welfare unit, and the courts. There is no information on the regularity with which these mechanisms are used.

Coordination

The SCHs are the main mechanisms for inter-sector coordination at the state level in Anambra, Ebonyi, Imo, and Enugu. Whenever SCHs are held, their outcomes are documented and disseminated for follow-up actions by the various participants. An example of such follow-up in Anambra was the purchase of mobile clinics that were agreed upon as a priority at the SCH. The pattern of documenting and disseminating outcomes of multi-stakeholder meetings for follow-up action is repeated at LGA, ward, and village levels, where health committees seek to coordinate actions among governmental and non-governmental stakeholders. In Abia, quarterly meetings of the state committee on food and nutrition and SACAs are the mechanisms for cross-sector coordination. State planning commissions are responsible for donor coordination in all the states in this zone, but there is insufficient information to gauge their effectiveness in this role.

Stability

There have been no significant cases of policy instability arising from political transition.

vi. Pharmaceutical management

Pharmaceutical management within each zone is examined across several different indicators: Pharmaceutical policy, laws, and regulations; Drug selection; Drug procurement; Storage and distribution; Appropriate use; and Drug financing.

Pharmaceutical policy, laws, and regulations

Pharmaceutical registration: Only Ebonyi identified NAFDAC as the responsible agency for the enforcement of policy, laws, and regulations on registration.

Collection of data regarding the safety and efficacy of marketed pharmaceutical products:

All states agreed that this reporting depends on patients' knowledge and extent of formal education level. Enugu has suggestion boxes at health facilities. In Anambra, the Health Facility Development Committee handles such issues. In Ebonyi, the head of the health facility is the primary point of complaint, while in Imo a patient would report any problems to the Community Health Development Committee. Unresolved issues are reported to the Town Union, which takes it to the local government, and, if needed, to the state level with the Director of Pharmaceutical Services.

Licensing, inspection, and control: All respondents were aware of mechanisms in place and correctly identified the agencies at the federal and state level responsible for enforcement.

Drug selection

Only Imo was knowledgeable about the year when the most recent EDL was issued and none of the states knew the exact number of drugs on the list. Only Enugu and Ebonyi affirmed the existence of a committee responsible for managing the process of maintaining the EDL at the state level.

Drug procurement

Organized procurement committee: Enugu does not have a committee for drug procurement – the Central Medical Store is in charge of procurement there. In Anambra, respondents described procurement as being done in a haphazard manner in response to stock-outs (although specific data regarding the number of procurements, emergency procurements, or stock-outs was not provided by the respondent). Ebonyi conducts procurement through the Drug Procurement and Information Committee, while the Essential Drug Program is in charge of procurement in Imo. Only Ebonyi has SOPs for procurement. In Anambra, SOPs are incorporated in the state's DRF, which is yet to be launched. Additionally, all states except Anambra used generic names in procurement. Emergency and planned procurements per year ranged from 2-3 times in 2006 and 2007, but data was unavailable for several states. (See Annex 3)

Competitive bidding: Enugu and Ebonyi responded that they procured all drugs through competitive bidding and have a qualification process for drug suppliers. The other states do not procure drugs using a competitive process but did not provide any reasons for not doing so.

Qualification: No information was provided for procurement qualification. None of the states tested samples as part of the procurement process, yet all states reported that the system had a responsible party for this. States were unsure where the testing labs were located.

Quantification: All states responded that need was the primary criteria used for quantification.

Storage and distribution

Distribution in Enugu and in Ebonyi is managed by Central Medical Stores. No information was provided by the other states. All states reported that they have SOPs, records, and documents to inform inventory control and confirm that drugs are stored under the conditions as per the SOPs. Public sector distribution functions are not integrated but further details were not provided. Enugu and Ebonyi reported inventory loss of less than 5% due to expiration. No other states reported on this. The major reasons for inventory loss reported by all states were drug expiration, heat damage and theft. Loss due to heat damage is surprising as all states reported that refrigeration units with functional temperature controls exist at the state level.

Appropriate use

In Enugu, the DRF includes a prescription guide. However, there is no regular monitoring about how the guide is implemented to ensure appropriate use. In Ebonyi, the Essential Drug Program manager oversees prescription practices, but does not conduct regular monitoring visits. In Anambra and Imo, there is no system for monitoring prescription processes. All states reported that standard treatment guidelines exist, but are used only in Enugu and Ebonyi for basic and in-service training of health personnel. It was not clear whether the use of treatment guidelines is monitored and whether these results would be available for the general public. All states responded that there are SOPs for dispensing drugs in public facilities and that dispensing is embedded in the Standard Treatment Protocol.

Drug financing

All states except Imo reported that a pharmaceutical cost recovery policy had been introduced and all states had a DRF (with Anambra's to be launched in the near future). The agencies responsible for

enforcing the pharmaceutical cost recovery policy are the Monitoring and Evaluation Unit in Enugu, the State HMB in Anambra, and the Central Medical Store in Enugu.

TABLE 25

State	Percentage of drug costs recovered
Anambra	100%
Ebonyi	95%
Enugu	80 – 90%
Imo	n/a

5. SOUTH SOUTH ZONE

States: also known as the Niger Delta, includes the states of Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers

Population: 21,014,655 (2006 est.)

Poverty Incidence: 35.1%

Infant Mortality Rate: 120 per 1,000 live births (2003 est.)

HIV/AIDS prevalence: moderate levels of HIV infection (under 4%)

Number of Health Professionals: 11,289 (FMOH, 2007)

Fertility Rate: 4.6

The South South zone, also known as the Niger Delta, includes the states of Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers. The states have moderate (less than 4%) levels of HIV infection. This zone is the main oil producing area of Nigeria. Data were collected from all six states in this zone.

i. Human resources

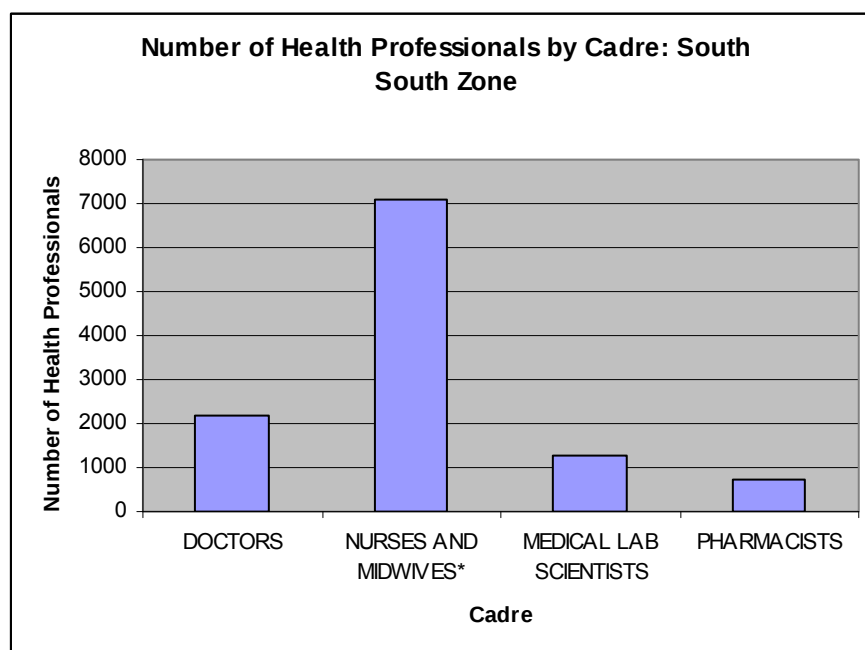
Zonal HRH data is presented according to 3 types of indicators: HRH planning, policies, and performance management.

HRH planning: The table below provides a breakdown of the distribution of health care workers by cadre and state. Bayelsa has the highest concentration of both doctors and nurses/midwives. Cross River and Edo have the lowest concentration of doctors and nurses/midwives. All states except for Bayelsa and Akwa Ibom reported that the migration of health care workers is affecting the availability of HRH within their states. All states reported a significant HRH imbalance between rural and urban areas, with a clear bias in favor of urban areas.

TABLE 26: DISTRIBUTION OF HEALTH WORKERS BY STATE, SOUTH SOUTH ZONE (FMOH, 2007)

STATE	DOCTORS	NURSES AND MIDWIVES	MEDICAL LAB SCIENTISTS	PHARMACISTS
Akwa Ibom	321	2311	185	71
Edo	480	1427	436	192
Bayelsa	179	NA	23	32
Cross Rivers	320	409	64	32
Delta	464	1949	274	194
Rivers	404	1001	299	222
TOTAL	2168	7097	1281	743

FIGURE 13: NUMBER OF HEALTH PROFESSIONALS BY CADRE: SOUTH SOUTH ZONE (FMOH, 2007)



All states reported that a health staff deployment strategy and a HRH data system are in place.

A functioning HRH planning and management unit, with enough personnel and adequate HRH planning skills, is available in two (Bayelsa and Rivers) of the six states surveyed.

The following proportion of states' health budget is dedicated to HRH: 4% in Edo, 15% in Bayelsa, and a surprising 60% in Akwa Ibom. The percentages for the other three states are unknown.

HRH policies: Respondents across all states reported that registration, certification, or licensing is required in order for staff to practice and that these activities are monitored. Periodic re-registration and/or re-licensing is also required in all states.

All states except for Cross River have salary structures for health personnel. All respondents reported that salaries are paid on time and in full.

Delta was the only state that believes that compensation in the public sector is competitive with the private sector; the representative from Akwa Ibom state did not answer this question.

HRH performance management: Job descriptions are reported to be available and shared with health workers employed in all states, and updated regularly in all but Akwa Ibom state.

An integrated supervision (administrative and clinical) policy is reported in only half the states surveyed – Delta, Bayelsa, and River. However, the percentage of supervision visits to health centers planned and actually conducted is unknown for these states.

A formal mechanism for individual performance planning and review for hired staff was reported to be available and reviews between personnel and supervisors are conducted on a regular basis and documented in all states.

ii. Health financing²⁵

Health financing is examined according to three overarching indicators: (1). Revenue collection, which includes the amount and sources of financial resources; (2). Pooling and allocation of financial resources, including government budget formulation and allocation; and (3). Purchasing and provider payment, including user fees and insurance schemes.

Revenue collection: Amount and sources of financial resources

With the exception of Akwa Ibom and Rivers states, reported levels of per capita health expenditures are higher in the South South zone than in other zones. However, these levels, with the exception of Bayelsa, are still below the WHO Commission on Macroeconomics and Health-recommended US \$34 level needed to provide a basic package of health services. (Sachs, 2001) As a share of total government expenditures, government spending on health ranges across the states (Table 27). As in other zones, data on total health expenditures are largely unavailable, thus assessing trends across the zone in government spending on health as a share of total health expenditures is not possible. Similarly, data on government spending on HIV/AIDS are largely unavailable.

TABLE 27 REVENUE COLLECTION INDICATORS IN SOUTH SOUTH ZONE

Indicator	Updated Data				Data from Data Collection Workshop							
	Akwa Ibom		Edo		Bayelsa		Cross River		Delta		Rivers	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Per capita total health expenditure (naira)	N50	N50	N1,347,31	N1,087	NA	N6,518	N392	NA	N2,652	NA	N299	N891
Government expenditure on health as % of total government expenditure	75.45%	49.06%	11.17%	9.68%	NA	7.00%	2.50%	3.20%	72.00%	24.00%	0.90%	2.40%
Public (government) spending on health as % of total health expenditure	NA	NA	28.12%	53.32%	NA	NA	89.81%	55.38%	NA	NA	NA	NA
Public (government) spending on HIV/AIDS as % of total health expenditure	0.02%	5.70%	NA	NA	NA	1.00%	NA	NA	NA	NA	NA	NA

Sources: Akwa Ibom: Ministry of Economic Development, government-approved budget; Edo: state government budget; Bayelsa, Cross River, Delta, and Rivers: Health System Assessment Data Collection Workshop, July 16-18, 2008, Abuja.

Pooling and allocation of financial resources: Government budget formulation and allocation

The Ministry of Health budgets in states in the South South zone are formulated in the same manner. The Department of Budget and Economic Planning in the Ministry of Health issues a call to all

²⁵ All states in the South South zone participated in the data collection workshop, however only Akwa Ibom and Edo submitted revised and updated data. Supporting documentation was received from Delta, Rivers, Bayelsa, and Cross Rivers States.

departments for budget proposals, which includes guidelines and templates. The Department of Planning collates budget requests from different departments and then submits it to the Department of Budget and Economic Planning. The budget draft is finalized, and then defended by the Minister of Health to the Ministry of Finance. All states in the South South zone reported having ceiling-based budgeting and organize the budgets around sub-heads or line items. Expenditures by the Ministry of Health are reviewed by the Internal Auditor.

Purchasing and provider payment

States in the South South zone have various mechanisms available for the purchasing healthcare services. In Cross Rivers and Delta States, a national health insurance scheme is available for civil servants, and the services covered include inpatient and outpatient care, HIV/AIDS services, and medicines. In Edo State, there is a scheme with similar benefits that also covers pregnant women and the elderly in addition to civil servants. In Rivers State, there is a State Government Free Medical Care Program, which covers inpatient and outpatient care, HIV/AIDS services, medicines, and medical supplies. Bayelsa State reported having a social health insurance scheme which automatically covers civil servants, and can cover additional populations on a voluntary basis. Services covered are similar to those in other states as described above.

Populations such as pregnant women, children under five, and the elderly are exempt from paying inpatient and outpatient fees in the South South zone. Immunizations, TB DOTS, antenatal care, malaria treatment and prevention, and immunizations are examples of the types of services which are provided for to these populations for free in the states.

Data on whether user fees are retained at the facility or pooled were not reported. Contracting with private providers, performance-based financing schemes, and incentive and reward programs are reportedly not prevalent in the South South zone.

iii. Service delivery

Service delivery data for this zone is summarized in Table 28. The following narrative provides additional insights captured within three service delivery indicators: (1) Service provision capacity ;(2) HIV/AIDS service provision; and (3) The private sector share of HIV/AIDS service provision.

General service provision capacity

The average number of public sector hospital beds in the zone is 11.6 per 10,000 people, which is above the national average of 9.2. There is substantial variation between states in this zone with Akwa Ibom reporting 29.3 public beds per 10,000 while Bayelsa, Delta, and Edo have fewer than seven beds per 10,000 people. Rivers and Cross River have relatively high public sector capacity with more than 12 public hospital beds per 10,000 people. Access to primary care in the public sector is relatively low in this zone, with 1.1 facilities per 10,000 people (the national average is 1.6). Once again, there is considerable variability among the states with a range: 0.7 to 1.9. However, overall availability is low. Only Cross River state exceeds the national average (1.9 per 10,000). Delta, Rivers, and Akwa Ibom have less than one public sector primary care facility for every 10,000 people.

HIV/ AIDS service provision

VCT services are offered by 4.1% of public sector facilities in the zone, which is more than the national average of 2.2%. This average masks important differences between states in this zone as Akwa Ibom (6.5%), Cross River (7.6%), and Edo (4.4%) states have a relatively high proportion of facilities that

report providing VCT services while fewer than 1% of all the public health facilities in the remaining states in this zone offer PMTCT. Services are offered by 1.8% (with a range of 0.8% to 3.2%) of all public sector facilities, compared with the national average of 0.9%. Delta reports a lower level of PMTCT provision in the public sector, while Bayelsa is comparable to the national average. Akwa Ibom, Cross River, Edo, and Rivers report relatively high availability of PMTCT. Availability in public sector facilities is also above the national average (1.3% compared with 0.7%). Although there are differences in reported provision between the states, these are not as extreme as the other HIV/AIDS services examined (with a range of 0.8% in Delta to 1.7% in Rivers). The proportion of public sector facilities that report having a laboratory in this zone (1.8%) is substantially lower than the national average (6.1%), and the lowest of all zones in the nation. There are the fewest public sector laboratory facilities in Bayelsa and Delta states (0.9% and 0.5%), while 3.2% of public facilities in Cross River have a laboratory.

Private sector share of HIV/ AIDS service provision

The private sector has a substantial presence: 25.8%, 18.0% and 18.4% of facilities which provide VCT, PMTCT, and ART are private. Delta and Akwa Ibom have an especially large private sector presence: 50% and 37% of facilities providing VCT services in Delta and Akwa Ibom are private while 40% of PMTCT and 29% of ART services in Akwa Ibom are provided by the private sector. (National Service Provision Assessment, 2008)

TABLE 28

Indicator	South South	Nigeria
	Average	Average
Public sector hospital beds per 10,000 people <i>(Range)</i>	11.6 (3.3, 29.3)	9.2 (2.1, 32.0)
Public sector primary care facilities per 10,000 people <i>(Range)</i>	1.1 (0.7, 1.9)	1.6 (0.3, 3.4)
% of public sector facilities that currently offer VCT <i>(Range)</i>	4.10% (0.9, 7.6)	2.20% (0.3, 13.1)
% of public sector facilities that currently offer PMTCT <i>(Range)</i>	1.80% (0.8, 3.2)	0.90% (0.2, 6.9)
% of public sector facilities that currently offer ART <i>(Range)</i>	1.30% (0.8, 1.7)	0.70% (0.1, 7.4)
% of public sector facilities that currently have a laboratory <i>(Range)</i>	1.80% (0.5, 3.2)	6.10% (0.5, 50.8)
% of VCT facilities that are public	74.20%	65.07%
% of VCT facilities that are private	25.80%	34.93%
% of public facilities that offer VCT	4.10%	2.25%
Total number of VCT facilities	128	682
% of PMTCT facilities that are public	82.00%	71.60%
% of PMTCT facilities that are private	18.00%	28.40%
% of public facilities that offer PMTCT	1.80%	0.93%
Total number of PMTCT facilities	50	245
% of ART facilities that are public	81.60%	76.07%
% of ART facilities that are private	18.40%	23.93%
% of public facilities that offer ART	1.30%	0.75%
Total number of ART facilities	38	181

iv. Health information system

Zonal health information system data is presented as it relates to three broad indicators: (1). resources, policies and regulation; (2). Data collection and quality; and (3). Data use.

Resources, policies, and regulation: Eighty percent of South South state governments do not provide budgetary allocations to support HIS activities. Akwa Ibom state has an annual HIS budget that partially supports the operations of the HIS. Every state in the South South zone reports frequent stockouts of recording forms and registers. Basic ICT infrastructure (computers, telephones, connectivity) is only available at state level. The World Bank HSDP supports HIS strengthening in Akwa Ibom, Cross River, and Baylesa states.

While all states in the zone have an HMIS policy, it is only partially enforced. Procedures for resource allocation based on health information exist, but they are seldom applied.

Data collection and quality: Collection of health information in the South South zone is poor. Reporting rates on minimum core indicators remain low (25%). Most data submitted to the SMOH are produced at the LGA level. There is no data flow from facilities to the SMOH. Respondents identified terrain (multiple creeks and rivers) and the ongoing socio-political crisis as factors that challenge data collection, submission, and verification.

Privately owned facilities do not report to the routine HIS across the zone. Although facility managers are aware of regulations, respondents cited a perceived fear of taxation as a barrier to private sector reporting. Every state, except Edo, maintains updated registries of public and privately owned facilities. Standards for data collection and analysis, adapted from the national HMIS policy, are in place in all states but are not enforced. Akwa Ibom, Delta, and Edo require all facilities to report on inventory and the status of physical equipment on an annual basis. All states affirmed that quarterly reports on commodities are required from all service delivery points; there are no data on submission rates. With the exception of Cross River, none of the states in attendance has published an integrated HIS summary report.

Data use: Staffing for HIS activities at the state level is partially adequate across the zone. The sub-state level is poorly staffed. Besides Delta state, which has deployed full-time HIS staff to every LGA, responses ranged from 20% staffing in Cross River to no full-time personnel in Baylesa.

The demand for health information by senior managers and policymakers is weak. Annual summary statistics are not produced in any state in the South South zone. Health information is not used to inform planning, resource allocation, and health development frameworks. There are no feedback mechanisms to provide information to health facilities or the general public.

v. Governance

Zonal governance data is presented according to 4 indicators: Responsiveness; Compliance, resource utilization and equity; Coordination; and Stability.

Responsiveness

Besides SCH, South South zone does not have additional forums to facilitate discussions between the government and the public. The SMOHs bring together participants from the LGAs, NGOs, private

providers, missions, women's groups, professional associations, and traditional birth attendants. Traditional healers are also invited in four of the six states (the exceptions are Bayelsa and Delta).

Compliance, resource utilization and equity

Consumer protection: Professional councils, the judiciary, Public Complaints Commissions (for civil servants), NGOs, human rights organizations and federal regulatory agencies (such as NAFDAC) help providers, clients and other concerned stakeholders when regulations, protocols, standards and/or codes of conduct are violated.

Misuse of resources: Along with standard public service audit procedures with respect to public providers, petitioning the state assemblies is the procedure for reporting, investigating, and adjudicating the misallocation or misuse of resources.

Fighting bias and inequity in access to services: The procedure outlined above can also be used to fight bias and inequity in accessing health services. There is no information if and how regularly these mechanisms are used.

Coordination

In each state, the mechanisms for coordinated and harmonized actions across sectors and tiers are the same as those listed in under "Responsiveness" for soliciting public and stakeholder input, with the addition of the NCH for extra-state coordination and the State Planning Commission for donor coordination. There was no information on how effectively donors were coordinated.

Stability

The political transition has not substantially affected policy continuity, although all the states reported changes in style and emphasis by the new administrations (for example, in Delta, the Health Commissioner's approval limit is now pegged back to NIm).

vi. Pharmaceutical management

Pharmaceutical management within each zone is examined across several different indicators: Pharmaceutical policy, laws, and regulations; Drug selection; Drug procurement; Storage and distribution; Appropriate use; and Drug financing.

Pharmaceutical policy, laws, and regulations

- **Pharmaceutical registration:** All states incorrectly identified PCN as the responsible agency.
- **Collection of data regarding the safety and efficacy of marketed pharmaceutical products:** All states except Rivers responded that patients revisit either the prescribing doctor or the dispensing location if there are problems. Bayelsa mentioned, however, that only knowledgeable patients would take this step to report problems. Only Akwa Ibom reported to have a systematic way of collecting this kind of information through the DPS Task Force on Counterfeit Drugs.
- **Licensing, inspection, and control:** Respondents correctly identified the PCN at the federal level and the SMOH's DPS as the principal agencies responsible for their enforcement.

Drug selection

None of the states knew the exact number of drugs listed in the EDL. All states except Edo affirmed the existence of a committee responsible for managing the process of maintaining the EDL at the state level.

Drug procurement

Organized procurement committee: All states reported to have a committee or tender board for procurement. In Edo and Bayelsa, the Director of Pharmaceutical Services is in charge of procurement. In Delta there is a DRF, while in Rivers the Central Medical Store handles procurement. In Cross River there is a Pharmaceutical Technical Committee. In Akwa Ibom the Tenders Board has the Finance and General Purposes Committee from the Department of Planning as its secretariat. The State Governor is in charge of any procurement greater than 2 million naira while the State Health Commissioner handles procurements under this threshold. The respondents provided no answer on the existence of SOPs for procurement. Rivers, Bayelsa, and Cross River used generic names in procurement. Edo and Delta did not know and Akwa Ibom did not provide a response.

Qualification: All states had a procurement qualification process, but none reported testing samples, citing a lack of capacity as the primary reason.

Quantification: All states except Edo responded that data were used for quantification. Rivers, Bayelsa, and Cross River listed the disease patterns and number of patients as examples of data used for quantification. Delta and Akwa Ibom listed consumption patterns.

Storage and distribution

The Essential Drug Program is responsible for managing distribution in Edo and Cross River, the DRF in Delta, and the CMS in Rivers and Bayelsa. The HMIS Division of the SMOH manages distribution in Akwa Ibom. No states reported contracting out distribution functions to the private sector. All states reported that drugs are stored under the conditions specified in SOPs. All states reported that they did experience inventory loss, mostly because of expiry and theft. However, they also reported that inventory loss was a sensitive issue and that documentation does not exist. All states reported that refrigeration units with functional temperature controls exist at the national, state, and LGA levels.

Appropriate use

All six states use posters with information on drug use that is visible at pharmacies (Cross River and Akwa Ibom) or labeling on medicines (Edo, Delta, Rivers, and Bayelsa). All states except Bayelsa reported that there is regular review of prescribing practices. For these reviews, Delta, Rivers, Cross River, and Akwa Ibom reported to have hospital consultants in charge of reviews, usually weekly. All states reported that standard treatment guidelines exist and are used for basic and in-service training of health personnel. However, it was not clear whether the use of treatment guidelines is monitored and whether these results would be available for the general public. All states responded that there are SOPs for dispensing drugs in public facilities.

Drug financing

All states reported that a pharmaceutical cost recovery policy had been introduced but could not provide data on the percentage of costs recovered. The agencies responsible were the DPS in Edo and Rivers, the DRF in Delta, and the EDP in Cross River. Bayelsa and Akwa Ibom did not know.

6. SOUTH WEST ZONE

States: Ekiti, Lagos, Ondo, Ogun, Osun, and Oyo states

Population: 27,581,992 (2006 est.)

Poverty Incidence: 43.0%

Infant Mortality Rate: 69 per 1,000 live births (2003 est.)

HIV/AIDS prevalence: low (less than 2%) to moderate (less than 4%) levels

Number of Health Professionals: 16,249 (FMOH 2007)

Fertility Rate: 4.1

The South West zone includes Ekiti, Lagos, Ondo, Ogun, Osun, and Oyo states. The states in these zones have low (less than 2%) to moderate (less than 4%) levels of HIV infection. This region hosts the economic capital of Nigeria and largest city in Africa (Lagos). Data were collected from all six states in this zone.

i. Human resources

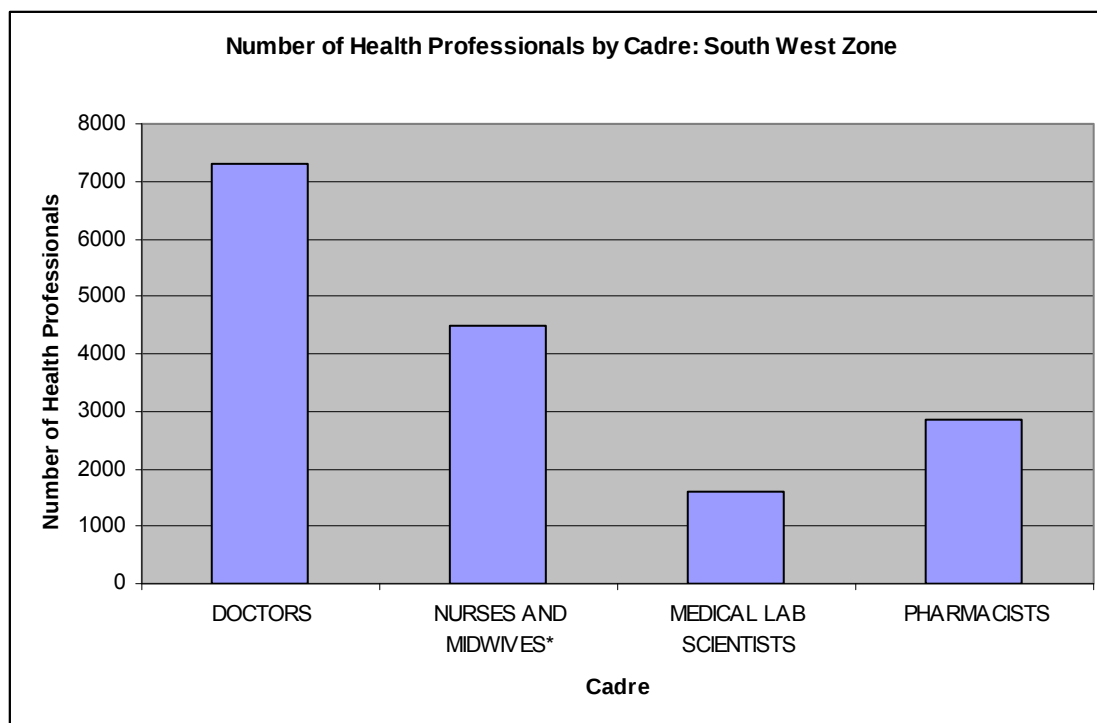
Zonal HRH data is presented according to 3 types of indicators: HRH planning, policies, and performance management.

HRH planning: The table below provides a breakdown of the distribution of health care workers by cadre and state. Lagos has the highest concentration of doctors, pharmacists and laboratory technicians, while Ogun has the highest concentration of nurses/midwives. Osun state has the lowest concentration of both doctors and nurses/midwives. All states except for Lagos reported that the migration of health care workers is affecting the availability of HRH within their state. In addition, Lagos and Osun states reported a significant HRH imbalance between rural and urban areas, with more health workers available in urban areas.

TABLE 29. DISTRIBUTION OF HEALTH CARE WORKERS BY STATE, SOUTH WEST ZONE (FMOH 2007)

State	Doctors	Nurses And Midwives	Medical Lab Scientists	Pharmacists
Ekiti	173	421	62	45
Lagos	3705	NA	384	2118
Ogun	698	988	176	178
Ondo	265	NA	205	72
Osun	1093	1428	371	152
Oyo	1366	1650	405	294
TOTAL	7300	4487	1603	2859

FIGURE 14: NUMBER OF HEALTH PROFESSIONALS BY CADRE: SOUTH WEST ZONE (FMOH, 2007)



All states reported having a health staff deployment strategy in place. In addition, there are functioning HRH planning and management units, with enough personnel and adequate HRH planning skills in Ondo, Ogun, and Ekiti.

The percentages of the state health budget dedicated to HRH vary widely from 9% in Osun to 24% in Ekiti, 28% in Lagos, and 45% in Oyo. Ondo and Ogun did not know their respective percentages.

HRH policies: Respondents reported that all states regulate and monitor registration, certification, or licensing that allows staff to practice. Periodic re-registration and/or re-licensing is also required in all states. Lagos state links re-licensure to re-registration of facilities, which has significantly helped increase compliance with regulations.

All six states have salary structures for health personnel, with salaries paid on time in all states and in full in all states except for Oyo. With the exception of Osun, all respondents believed that compensation in the public sector is competitive with the private sector.

HRH performance management: Job descriptions are reported to be available in all states, and updated regularly and shared with health workers in all but Ekiti state.

An integrated supervision (administrative and clinical) policy was reported in all states. The percentage of supervision visits to health centers planned and actually conducted was reported as unknown in Ondo and Ogun states, 80% in Osun state, 90% in Oyo state, 20% in Lagos state, and 25% in Ekiti state.

All states reported that a formal mechanism for individual performance planning and review for hired staff was available and reviews between personnel and supervisors are conducted on regular basis and documented

ii. Health financing²⁶

Health financing is examined according to three overarching indicators: (1). Revenue collection, which includes the amount and sources of financial resources; (2). Pooling and allocation of financial resources, including government budget formulation and allocation; and (3). Purchasing and provider payment, including user fees and insurance schemes.

Revenue collection: Amount and sources of financial resources: As the table highlights, data on revenue collection is particularly spotty in the South West zone. Two states did not provide data on any of the indicators, and the remaining states were able to provide data on only a few of the indicators. Financing levels across the indicators are lower in the states in the South West zone than in any other zone.

TABLE 30: REVENUE COLLECTION INDICATORS IN SOUTH WEST ZONE

Indicator	Updated Data		Data from Data Collection Workshop									
	Ondo		Lagos		Oyo		Osun		Ogun		Ekiti	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Per capita total health expenditure (naira)	N544.61	N741.5	NP	NP	N402	N741.5	N328	NA	NA	NA	NP	NP
Government expenditure on health as % of total government expenditure	4.00%	4.30%	NP	NP	7.00%	7.40%	8.32%	6.27%	4.78%	4.45%	NP	NP
Public (government) spending on health as % of total health expenditure	NA	NA	NP	NP	0.60%	1.00%	NA	NA	NA	NA	NP	NP
Public (government) spending on HIV/AIDS as % of total health expenditure	0.50%	0.71%	NP	NP	NA	NA	9%	9%	NA	NA	NP	NP

Sources: Ondo: Health Tracking Resource document, SACA; Oyo, Osun, Ogun, Ekiti: Health System Assessment Data Collection Workshop, July 16-18, 2008, Abuja.

Pooling and allocation of financial resources: Government budget formulation and allocation: The process for the formulation of the Ministry of Health budget follows a similar pattern across states in the Zone. The Director of Planning issues a memo to all other Departments requesting a budget proposal for upcoming year. The Departments review what was spent the year before and develop a budget for upcoming year. The requests of each Department are collated to generate the overall MoH budget. The Department of Budget and Planning then submits the request to the Ministry of Finance and justifies the proposal. After the budget defense, the Ministry of Finance approves it. Following submission of the budget to Treasury, it is sent to the National Assembly. In Lagos, Ondo, and Oyo, the budget is needs-based for both recurrent and capital expenditures. However, the budget request may

²⁶ All of the states in the zone participated in the data collection workshop. However, only Ondo State submitted updated and revised data. None of the states submitted supporting documentation. As such, none of the data have been validated.

be reduced following the defense of the budget proposal. In Osun, Ogun, and Ondo capital expenditures have a ceiling, whereas recurrent expenditures are needs-based.

Budgets are structured around sub-heads. Internally generated revenue is taken into account during the budget approval process, and high levels of IGR are viewed as indicators of good performance. Internal and external auditors monitor and report on budget execution rates. In Oyo, the Ministry of Finance determines how recurrent grants are spent.

Purchasing and provider payment: A national health insurance scheme for civil servants exists in Lagos and Ekiti. In Ekiti, this scheme is funded by the government for the first year of enrollment, and following that, enrollees are expected to make the contributions. In Ondo, there is a community pre-payment scheme.

Deferral and exemption schemes are present in Lagos, Ogun, Ekiti, and Ondo. Populations covered include pregnant women and children under five. Services covered are similar to those in other zones and include immunizations, malaria, TB DOTS, and ARVs.

In Lagos and Ekiti, facilities have autonomy over IGR generated at the facility, but in Ekiti, facilities retain only 20 percent of the IGR (which is used to support operational costs). The use of this 20 percent is governed by an oversight committee, which also has decision making authority on the capital and financial aspects of the facility. At the secondary level, the HMB is in charge of these functions. IGR in Lagos is pooled at the state level, but the proportion that is pooled versus retained was not reported. In Osun, facilities must send any IGR to the Ministry of Finance.

With respect to contracting, performance-based financing schemes, and incentive mechanisms, states in the South West zone have implemented monetary reward systems for good performance, but it was reported that the targets necessary for facilities or individuals to meet to receive such rewards have not been set. Contracting is not prevalent in this zone.

iii. Service delivery

Service delivery data for this zone is summarized in Table 31. The following narrative provides additional insights captured within three service delivery indicators: (1) Service provision capacity ;(2) HIV/AIDS service provision; and (3) The private sector share of HIV/AIDS service provision.

General service provision capacity

- The average number of public sector hospital beds in the zone is 8.5 beds per 10,000 people, less than the national average of 9.2 per 10,000 people.
- In terms of availability of hospital services, only Ogun and Osun states exceed the national average (13.8 and 17.3 beds per 10,000). Lagos, Oyo, and Ekiti states have very limited public sector hospital capacity (range from 2.7 to 5.0 beds per 10,000). The surprisingly low number of public sector beds in Lagos may be due to the large private sector in Lagos.
- The average number of primary care facilities in the zone is 1.4 per 10,000 people, slightly less than the national average of 1.6 per 10,000.
- Only Osun state exceeds the national average, with 3.4 public sector primary facilities per 10,000; all the other states have less than 1.5 facilities per 10,000 people. Lagos has the smallest number of primary care facilities in the public sector at 0.3 per 10,000.

HIV/ AIDS service provision

- VCT: Services are offered by only 1.5% of public sector facilities in the zone, which is less than the national average of 2.2%. There is substantial variation in availability across the South West, ranging from 0.3% (Osun) to 13.1% (Lagos). Barring Lagos, all other states show very low availability of this vital service in public sector facilities.
- PMTCT: The service is offered at 0.7% of all public sector facilities in the zone. Public sector facilities in Lagos state reported the highest availability of PMTCT (6.9%). In all the remaining states, less than 1% of public sector facilities offer any PMTCT services.
- ART: Availability in the zone is the same as the national average, with 0.7% of public sector facilities providing ART services. Public sector capacity to provide ART services is concentrated in Lagos state (7.4%) while less than 1% of public facilities in other states report offering any ART services at all.
- Laboratory capacity: 9.3% of public sector facilities in the zone currently have a laboratory, higher than the national average of 6.1%. However, there is a high degree of heterogeneity between states as 51% of the 364 facilities in Ogun state report having a laboratory compared with less than 5% of public sector facilities in all other states.

Private sector share of HIV/ AIDS service provision

- The private sector has also emerged as an important provider of HIV/AIDS services, with 55.9%, 50.0%, and 26.7% of all VCT, PMTCT, and ART services being provided by private facilities. (National Service Provision Assessment, 2008)
- In relative terms, the private sector is a particularly important contributor to HIV/AIDS services in Lagos (for VCT) and Oyo states (for PMTCT and ART).

TABLE 31

Indicator	South West	Nigeria
	Average	Average
Public sector hospital beds per 10,000 people <i>(Range)</i>	8.5 (2.7, 17.3)	9.2 (2.1, 32.0)
Public sector primary care facilities per 10,000 people <i>(Range)</i>	1.4 (0.3, 3.4)	1.6 (0.3, 3.4)
% of public sector facilities that currently offer VCT <i>(Range)</i>	1.50% (0.3, 13.1)	2.20% (0.3, 13.1)
% of public sector facilities that currently offer PMTCT <i>(Range)</i>	0.70% (0.2, 6.9)	0.90% (0.2, 6.9)
% of public sector facilities that currently offer ART <i>(Range)</i>	0.70% (0.2, 7.4)	0.70% (0.1, 7.4)
% of public sector facilities that currently have a laboratory <i>(Range)</i>	9.30% (3.1, 50.8)	6.10% (0.5, 50.8)
% of VCT facilities that are public	44.10%	65.07%
% of VCT facilities that are private	55.90%	34.93%
% of public facilities that offer VCT	1.50%	2.25%
Total number of VCT facilities	111	682
% of PMTCT facilities that are public	50.00%	71.60%
% of PMTCT facilities that are private	50.00%	28.40%
% of public facilities that offer PMTCT	0.70%	0.93%
Total number of PMTCT facilities	42	245
% of ART facilities that are public	73.30%	76.07%
% of ART facilities that are private	26.70%	23.93%
% of public facilities that offer ART	0.70%	0.75%
Total number of ART facilities	30	181

iv. Health information system

Zonal health information system data is presented as it relates to three broad indicators: (1). resources, policies and regulation; (2). Data collection and quality; and (3). Data use.

Resources, policies, and regulation: This section aims at assessing the availability of the financial and/or physical resources necessary to support HIS activities. All states in the South West zone have annual SMOH budgetary allocations to support HIS activities. Two (Lagos and Oyo) also have LGA-level HIS budget allocations. No figures were available on the overall resource envelope for HIS. It should be noted that, although budgetary allocations are consistent year after year, respondents perceived timely disbursement of funds as a challenge across all the states in this zone. Four of the six states in the South West zone reported consistent availability of recording forms and registers (i.e., no stockouts). Two of six (Ekiti and Ogun) reported occasional stockouts of forms and registers, but indicated that this does not affect the recording of health information.

Basic ICT infrastructure (computers, telephones,²⁷ access to email/Internet) is lacking across the South West zone. Only Lagos state reported having basic ICT infrastructure at 50% of sub-state-level (LGA and secondary health) facilities. All other states in this zone have only computers (without Internet access) at the SMOH level. All respondents (except Lagos) reported using commercial Internet and email services (i.e., cybercafés). Technical and financial support for ICT (maintenance) is available only at the SMOH level, except in Lagos. Lagos state has received some support from donor partners, mainly from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), to strengthen ICT at HIV service delivery sites.

All states in the South West zone have policies and laws mandating reporting by the public and private sector on national HIS data. However, all states, with the exception of Lagos, reported issues with private sector reporting. The respondents stated that the private sector perceives routine reports as information that could be used for taxation purposes by fiscal authorities, and are therefore reluctant to provide service statistics. Lagos state, in recent years, tied re-licensing of facilities to certification of routine reporting. This, according to the Lagos state HMIS officer, has contributed to significantly increasing routine reporting by private sector facilities.

Data collection and quality: All states in the South West zone, with the exception of Ondo, reported high reporting rates (75% >) from districts. The HMIS officer from Ondo reported that the lack of funds to support expedited delivery of reports (via courier) to the SMOH level affects the timeliness of data reporting.

As indicated above, only Lagos state has been successful in increasing reporting rates from the private sector. Lack of or weak supervision of private sector facilities, especially with respect to health information, is the main cause of poor reporting. All states in attendance reported that the management of private facilities are systematically invited to trainings on new or revised HMIS forms. In spite of low levels of routine reporting, facility registries (public and private) are available and updated on an annual basis in all states in the South West zone.

Standards for data collection are specified in the National HMIS policy document. As part of the elaboration of the NHMIS policy, every state of the Federation was required to develop a state-level HIS

²⁷ Telephones refer to both fixed line and GSM (mobile) phones. For the purposes of this assessment, personal devices, even when used for work purposes, do not qualify as available infrastructure.

policy. All states in attendance reported having a state-level HIS policy in use in public facilities. No data were available on the level of use/application of the policy in private sector facilities.

Reports on physical inventory (equipment, condition of buildings, vehicles etc.) are required from every facility on a yearly basis. Given the presence of several vertical and parastatal programs, there are no integrated commodity supply chain reports submitted to the SMOH. However, all HMIS officers reported being able to obtain supply chain data from partners upon request.

The only state with an up-to-date health statistics compendium is Lagos, which published its last health statistics report in 2007. Ekiti reported having published a compendium in 2002 while Ondo's most recent publication dates back to 1987.

Data use: Nigeria has a number of institutions that train MROs and HROs. These typically support staff deployed at primary and secondary health facility levels. A professional association (Health Records Officers Board) exists and licensure requirements are applied to this cadre of staff.

At the SMOH level, four of the six responding states indicated having a highly adequate (well-trained and sufficient resources with all positions filled) cadre of HIS personnel. Two of the six reported having an adequate level of staff (limited vacancies). At the sub-state level, three of the six states reported insufficient staff at secondary and primary facilities, with less than half of their respective facilities staffed with a health information officer. Two of the six states indicated that over 50% of their facilities have HROs, and Lagos state affirmed having deployed a MRO and HRO in 100% of public facilities across the state.

All states in the South West reported that senior-level managers and policymakers regularly demand health data for decision-making purposes. However, only one of the states (Lagos) has published an annual summary of health service statistics in the past two years. All states also indicated adequate use of information at decentralized level (LGA level, Hospital level).

The use of data for decision-making purposes is a weakness across all states in the South West zone. Although data are frequently requested by policymakers, respondents indicated that it is exclusively used for diagnostic purposes – to explain health problems and challenges – and not for informing planning frameworks (i.e. MTEFs, long-term strategic plans, etc.). Only one of the six states (Lagos) reports regular production and dissemination of surveillance data via bulletins, and no state reports having adequate feedback mechanisms for health facilities and/or the public.

v. Governance

Zonal governance data is presented according to 4 indicators: Responsiveness; Compliance, resource utilization and equity; Coordination; and Stability.

Responsiveness

All the states in this zone regularly organize forums to solicit input from the public and concerned stakeholders about health sector priorities, services, and resources. Ekiti, Lagos, Ogun, Ondo, and Osun states rely on their respective SCHs for these purposes. Participants are drawn from line ministries, NGOs, FBOs, community leaders, professional associations, LGAs, all SMOH directorates, HMB, federal institutions, chief medical directors of tertiary institutions, and the media. Ekiti includes traditional and religious leaders among its SCH participants. In addition, Ondo holds stakeholder forums for programs in addition to its SCH, while Osun also has its HDCC. The meetings are held annually in most states and quarterly in Ondo. Oyo's pre-summit meetings attract a similar array of participants, but banks also

attend in the spirit of PPPs. In all cases, outcomes are documented and communicated to participants and also shared with the media, which cover the sessions and other related health policy debates. There is public access to policies, strategic plans and budgets for health services in all states, and stakeholders are able to effectively engage with public officials in the establishment of policies, plans and budgets in all states except Lagos. There is no active consumer movement in any of the states.

Information, reporting, and lobbying

- All the states reported that the allocation and utilization of resources is regularly tracked, but that information on utilization of health budgets is not routinely available to the public
- Information about the quality and cost of health facilities is either not produced or not available to members of the public, except in Oyo, where there is information on quality.

Compliance, resources and equity

- **Consumer protection:** States, LGAs, communities, and CSOs can contribute to monitoring compliance through the SCH and NCH. Committees of the state assemblies may weigh in if matters are brought to their attention, and members of the public can also petition the governor. The disciplinary committee in the SMOH and other ad hoc committees may also intervene where necessary.
- **Misuse of resources:** All the states reported that the allocation and utilization of resources is regularly tracked, but that information on utilization of health budgets is not routinely available to the public. Government does report to the public on health expenditures through budget speeches, assembly hearings, media briefings, radio phone-ins and when challenged by opposition parties. Members of the public, including opposition parties, can use these same forums to challenge cases of misuse, but there were no reports of such challenges.
- **Fighting bias and inequity in accessing health services:** Other than the actors mentioned above, there are no other dedicated public, voluntary and private organizations that oversee the way provider organizations follow protocols and standards in regard to malpractice, unfair pricing patterns, and discrimination against clients.

Coordination

In all states, the main mechanisms for coordinated and harmonized actions across sectors and among the federal, state, local, and community levels are the same as the ones reported earlier for harnessing public input into health sector priorities, services, and resources (please see section on Responsiveness for South West Zone). Donor coordination is the responsibility of the state planning commissions and the ministries of finance in all states except Ondo, where there is a Multilateral Department in the Governor's Office.

Stability

All states except Lagos have experienced policy changes in the wake of political transition from one political party to another. Lagos is the only state in the zone that has been controlled by the same political party since 1999. In Ekiti and Ogun, the universal free medical services policy has been replaced by free care to pregnant mothers and children five years and under. Ogun has relocated the Accident Prevention Services Unit from the SMOH to the HMB. The free surgical services policy also has been suspended in Osun. The changes were attributed to parties' differences in policy platforms on these issues.

vi. Pharmaceutical management

Pharmaceutical management within each zone is examined across several different indicators: Pharmaceutical policy, laws, and regulations; Drug selection; Drug procurement; Storage and distribution; Appropriate use; and Drug financing.

Pharmaceutical policy, laws, and regulations

- **Pharmaceutical registration:** all states but Osun incorrectly identified PCN as the responsible agency. Only two of the states, Ekiti and Lagos, also identified NAFDAC as the correct responsible agency for the enforcement of policy, laws, and regulations on registration.
- **Collection of data regarding the safety and efficacy of marketed pharmaceutical products:** Ondo and Lagos responded that patients or providers usually go back to the dispensing health facility in case of pharmaceutical problems. Ondo noted that problems remain unrecorded unless they are deemed serious. Lagos also suggested that a problem report will only reach higher authorities if the problem is reported to the hospital several times. Oyo, Ekiti, and Ondo reported that no patients had ever reacted adversely to drugs.
- **Licensing, inspection, and control:** All respondents correctly identified PCN at the federal level and the SMOH DPS as the principal agencies responsible for their enforcement.

Drug selection

While Ogun, Oyo, Ekiti, and Osun were knowledgeable about the year when the most recent EDL was issued, none of the respondents knew the exact number of drugs listed in it. There is however, a committee for managing the EDL at the state level.

Drug procurement

- **Organized procurement committee:** A committee or tender board, which includes representatives from the HMB and the DPS, exists in Ogun, Oyo, Ekiti, Lagos, and Osun. In Ekiti, the Director of Pharmaceutical Services chairs the tender board. In Osun, the Officer of Due Process, selected by the Governor, chairs the Tender Board. Ondo has a PPP employing primary manufacturers as prime vendors for the drugs on the EDL. The respondents provided no answer on the existence of SOPs for procurement. Additionally, Ekiti, Oyo, Lagos, and Ondo used generic names in procurement. Ogun did not know, and Osun responded negatively.
- The number of procurements per year also varied by state ranged from 1-3 among Ekiti, Oyo, Osun and Ondo states respectively between 2006 and 2007. As well, the number of emergency procurements per year between 2006 and 2007 ranged from 0-3 in Osun, Ondo, and Ekiti. (See Annex 3)
- **Competitive bidding:** Oyo and Osun responded that they procured 100% of drugs through competitive bid, while Ondo procured 80% competitively. The reasons cited for any shortfalls in competitive bidding were lack of political will, forms, and the need to conduct emergency procurements. Ogun, Ekiti, and Osun did not know what percentage of drugs were procured through competitive bid. None of the respondents identified the source of this data. Osun, Oyo, Ekiti, Ondo, Lagos, and Osun states have Standard Procurement Guidelines that they use in the procurement of drugs but the respondents did not know if their states use the EDL as a guide for the procurement.

- **Qualification:** All states had a procurement qualification process, although only Ogun, Ekiti, Lagos, and Osun tested pharmaceutical samples as a part of the procurement process. In Ekiti, the testing was done at the Central Medical Store, in Ondo at the SMOH, in Lagos at the State Drug Quality Control Lab, and in Osun at NAFDAC. All these states also responded that the capacity exists to conduct this testing.
- **Quantification:** All states responded that they use data for quantification. Ogun, Ekiti, Ondo, and Osun use need and consumption data, Oyo uses the sample opinion of doctors in secondary health facilities, and Lagos uses monthly reports from hospitals in addition to consumption patterns.

Storage and distribution

Ogun, Oyo, Lagos, and Osun reported that inventory control is guided by information in ledgers. However, only Ekiti was aware of SOPs, which in this case were put in place by mayors to ensure that the Central Medical Store functions properly. No states reported contracting distribution functions out to the private sector. All states reported that drugs are stored under the conditions specified under SOPs. All states also reported that they did not experience inventory loss. Lagos specified that facilities usually don't have enough drugs, therefore making it difficult for them to be in the facility long enough for them to expire. All states reported that refrigeration units with functional temperature controls exist at the national, state and LGA levels.

Appropriate use

All six states use posters with information on drug use which are visible at pharmacies. In Osun, counseling is also available for this purpose. In Ogun, Oyo, Ekiti, and Ondo, there are monthly reviews of prescribing practices. In Lagos, there are weekly meetings in addition to the monthly ones. Osun did not know how frequently doctors review prescribing practices. For all states, the Chief of the Medical Directorate was responsible for the reviews. All states reported that standard treatment guidelines exist and are used for basic and in-service training of health personnel. However, it was not clear whether the use of treatment guidelines is monitored and whether these results would be available for the general public. All states responded that there are SOPs for dispensing drugs in public facilities.

Drug financing

All states except Osun reported that a pharmaceutical cost recovery policy had been introduced, although the agencies responsible for enforcing this policy varied by state. In Ogun, it is the Directorate of Pharmaceutical Services; in Oyo the SMOH and the Drug Management Committee; in Ekiti the SMOH, the HMB, and the Local Government Service Commission and in Lagos the DRF. Ondo and Osun did not know.

TABLE 32

State	Percentage of drug costs recovered
Ekiti	100%
Lagos	100%
Ogun	n/a
Ondo	n/a
Osun	n/a
Oyo	30%

ANNEX B: DISTRIBUTION OF VCT, PMTCT, AND ART SITES BY ZONE

VCT

Service/ Indicator	Zonal Averages						
	NC	NE	NW	SE	SS	SW	Nigeria
Public	58.9%	83.6%	93.1%	36.5%	74.2%	44.1%	63.5%
Private	41.1%	16.4%	6.9%	63.5%	25.8%	55.9%	36.5%

PMTCT

	NC	NE	NW	SE	SS	SW	Nigeria
Public	60.3%	100.0%	94.4%	42.9%	82.0%	50.0%	68.2%
Private	39.7%	0.0%	5.6%	57.1%	18.0%	50.0%	31.8%

ART

	NC	NE	NW	SE	SS	SW	Nigeria
Public	56.9%	92.9%	85.0%	66.7%	81.6%	73.3%	71.8%
Private	43.1%	7.1%	15.0%	33.3%	18.4%	26.7%	28.2%

ANNEX C: NUMBER OF DRUG PROCUREMENTS PER YEAR BY ZONE

NORTH CENTRAL

TABLE 1

	Nr. of procurements per year					
Year	Benue	FCT	Kogi	Nasarawa	Niger	Plateau
2006	1	12	2	3	1	0
2007	1	12	2	4	1	0

TABLE 2

	Nr. of emergency procurements per year					
Year	Benue	FCT	Kogi	Nasarawa	Niger	Plateau
2006	0	n/a	0	n/a	0	0
2007	0	n/a	0	n/a	0	0

NORTH EAST

TABLE 3

	Nr. of procurements per year				
Year	Adamawa	Bauchi	Borno	Gombe	Yobe
2006	2	4	1	3	12
2007	2	4	1	3	12

TABLE 4

	Nr. of emergency procurements per year				
Year	Adamawa	Bauchi	Borno	Gombe	Yobe
2006	At least 4	n/a	0	4	More than 5
2007	At least 4	n/a	0	4	More than 3

NORTH WEST

TABLE 5

	Nr. of procurements per year				
Year	Jigawa	Kaduna	Katsina	Zamfara	Sokoto
2006	n/a	n/a	4	n/a	0
2007	4	n/a	4	n/a	3

TABLE 6

	Nr. of emergency procurements per year				
Year	Jigawa	Kaduna	Katsina	Zamfara	Sokoto
2006	n/a	n/a	3	n/a	0
2007	3	n/a	4	n/a	0

SOUTH EAST

TABLE 7

	Nr. of procurements per year			
Year	Anambra*	Ebonyi	Enugu	Imo
2006	n/a	3	2	n/a
2007	n/a	3	2	n/a

In Anambra, data were not available since drugs are not procured centrally (i.e., each hospital procures them on a need basis).

TABLE 8

	Nr. of emergency procurements per year			
Year	Anambra	Ebonyi	Enugu	Imo
2006	n/a	2	n/a	n/a
2007	n/a	2	n/a	n/a

SOUTH SOUTH

TABLE 9

	Nr. of procurements per year					
Year	Akwa Ibom	Bayelsa	Cross River	Delta	Edo	Rivers
2006	n/a	4	n/a	n/a	n/a	n/a
2007	n/a	4	n/a	n/a	n/a	n/a

TABLE 10

	Nr. of emergency procurements per year					
Year	Akwa Ibom	Bayelsa	Cross River	Delta	Edo	Rivers
2006	n/a	1	n/a	n/a	n/a	n/a
2007	n/a	1	n/a	n/a	n/a	n/a

SOUTH WEST**TABLE 11**

	Nr. of procurements per year					
Year	Ekiti	Lagos	Ogun	Ondo	Osun	Oyo
2006	1	n/a	n/a	3	2	1
2007	3	n/a	n/a	3	2	1

TABLE 12

	Nr. of emergency procurements per year					
Year	Ekiti	Lagos	Ogun	Ondo	Osun	Oyo
2006	1	n/a	n/a	0	0	n/a
2007	1	n/a	n/a	3	0	n/a

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