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# Nigeria Health, Nutrition, and Population Country Status Report

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## Summary and Conclusions

### Acronyms

ACT	Artemisin-Combination Therapy	MMR	Maternal Mortality Ratio
ARI	Acute Respiratory Infection	NACA	National Action Committee On AIDS
BMI	Body Mass Index	NAFDAC	National Agency For Food And Drug Administration And Control
CBN	Central Bank Of Nigeria	NDHS	Nigeria Demographic And Health Survey
CBO	Community Based Organization	NHIS	National Health Insurance Scheme
CEOC	Comprehensive Emergency Obstetric Care	NEEDS	National Economic Empowerment Strategy
CHEW	Community Health Extension Worker	NLSS	Nigeria Living Standards Survey
CSR	Country Status Report	NPC	National Planning Commission
CWQ	Core Welfare Indicator Questionnaire	NPHCDA	National Primary Health Care Development Agency
DFID	Department For International Development (United Kingdom)	NPI	National Programme For Immunization
DOTS	Directly-Observed Treatment, Short-Course	ORS	Oral Rehydration Solution
DPT	Diphtheria-Pertussis-Tetanus Vaccine	ORT	Oral Rehydration Therapy
EOC	Emergency Obstetric Care	PAFA	Population Activities Fund Agency
FCT	Federal Capital Territory	PHC	Primary Health Care
FGM	Female Genital Mutilation	SSA	Sub-Saharan Africa
FGN	Federal Government Of Nigeria	TB	Tuberculosis
FMOH	Federal Ministry Of Health	TFR	Total Fertility Rate
GAVI	Global Alliance For Vaccines And Immunization	UK	United Kingdom
GDP	Gross Domestic Product	UNAIDS	Joint United Nations Programme On HIV/AIDS
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome	UNFPA	United Nations Population Fund
HMB	Hospital Management Board	UNICEF	United Nations Children's Fund
IMF	International Monetary Fund	US\$	United States Dollar
IPT	Intermittent Preventive Treatment	USAID	United States Agency For International Development
LGA	Local Government Area	VCT	Voluntary Counseling And Testing
MBB	Marginal Budgeting For Bottlenecks	VVF	Vesico-Vaginal Fistula
MDG	Millennium Development Goal	WHO	World Health Organization

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**Table of Contents**

<b>Summary and Conclusions .....</b>	<b>5</b>
Context .....	5
Health Outcomes .....	6
Health Care Utilization.....	7
Millennium Development Goals (MDGs).....	9
Household and Community Determinants of Health Outcomes and Service Utilization.....	10
Health System.....	15
Health Services and Programs .....	20
Health Service Availability and Utilization by Type of Provider .....	24
Role of the Private Sector .....	30
Health Care Financing and Requirements .....	31
Health Policy .....	37
Main Challenges and Policy Options .....	39
<b>Sources .....</b>	<b>45</b>

## List of Tables and Figures

### Tables

Table 1. Under-five mortality and chronic malnutrition across regions, Nigeria, 2003 .....	12
Table 2. Child health service availability, Nigeria, 2001 (% of facilities) (n=674).....	21
Table 3. Health service utilization by type of provider, Nigeria, 2003 (% of children with cough or fever in the previous two weeks who received care) (n = 1,295).....	24
Table 4. Health service utilization by type of provider, Nigeria, 2004 (% of children and adults ill or injured in the previous two weeks who received care) (n = 7,028) .....	24
Table 5. Health service utilization by geopolitical zone and type of provider, Nigeria, 2004 (% of children and adults ill or injured in the previous two weeks who received care) (n = 7,028) .....	25
Table 6. Federal government health expenditures, Nigeria, 1998-2003 (in current and constant 2003 prices) .....	31
Table 7. Estimates for total health expenditure in Nigeria, circa 2003-2004 .....	35
Table 8. Estimated cost and impact of MBB policy scenarios .....	36

### Figures

Figure 1. Measles immunization coverage by GDP per capita (SSA countries with GDP per capita less than US\$ 500).....	8
Figure 2. Progress towards meeting the Millennium Development Goals, Nigeria, 1990-2003 .....	9
Figure 3. Change in probability of receiving care associated with education level (compared to women with no education), Nigeria, 2003 .....	10
Figure 4. Infant and under-five mortality in urban and rural areas, Nigeria, 1993-2003 (mortality per 1,000 live births).....	11
Figure 5. Regional differences in health service utilization, Nigeria, 2003 .....	13
Figure 6. Women's reported barriers to accessing health care, Nigeria, 2003 (% of women) .....	13
Figure 7. Socio-economic disparities health outcomes and basic service utilization, Nigeria, 2003 .....	14
Figure 8. Women's reported barriers to accessing health care, Nigeria, 2003 (% of women) .....	15
Figure 9. Government funding flows to the health system in Nigeria.....	16
Figure 10. Doctors and nurses/midwives per 100,000 population by GNI per capita, 2001 (countries with GNI per capita under US\$1,500).....	18
Figure 11. Health service utilization by type of provider and consumption quintile (% of ill or injured in the previous two weeks who received treatment), Nigeria, 2004 .....	26
Figure 12. PHC services per 100,000 population, Nigeria, 2001 .....	26
Figure 13. Regional patterns of utilization by type of provider, Nigeria, 2003 (% of children with cough or fever who were treated) .....	28
Figure 14. Availability of pharmacists/patent medicine vendors, Nigeria, 1999 (%households living within 5 km) .....	29
Figure 15. Utilization of pharmacy/patent medicine dealer for treatment of child illness, Nigeria, 2004 (% of children with illness in previous two weeks who received treatment) .....	30
Figure 16. Federal government health expenditures, Nigeria, 2001-2002 .....	32
Figure 17. Per capita domestic public sector health spending and GDP per capita, 2002 (countries with GDP per capita less than US\$ 1,000) .....	33
Figure 18. Total health spending and under-5 mortality, 2002-03 (countries with under-5 mortality over 40 per 1,000).....	36

## SUMMARY AND CONCLUSIONS

1. *The Health, Nutrition, and Population Country Status Report (CSR) for Nigeria aims to contribute to the evidence base of the Government's poverty reduction strategy and health system reform efforts at the same time as informing the Bank's policy dialogue with the Government.*

The major theme of the CSR is the analysis of the health situation of the poor and how the health system is performing in terms of meeting the needs of the poor. The report benefits from recent high-quality and representative household surveys, as well as administrative data on health services and financing. Although such administrative data are sometimes dated and incomplete, they are supplemented by a variety of surveys and studies of different aspects of the health system and financing. The report has six chapters: i) Health Outcomes; ii) Household Behavior and Community Factors Affecting Health; iii) Health System and Policy; iv) The Role of the Private Sector in Health Care Provision; v) Health Care Financing; and vi) Extra Resources Needed to Achieve the Health-Related Millennium Development Goals (MDGs). This section presents a summary of the main text as well as conclusions and a discussion of policy implications.

### CONTEXT

2. *Nigeria is a large and diverse country and under its federal system, responsibility for health services is divided between levels of government.* The population of Nigeria, estimated at around 130 million, is the largest in Africa and is very diverse. This complexity is mirrored by widely varying patterns of health outcomes and health services. Administratively, the country is organized as a federation with a federal government, 36 states and the Federal Capital Territory (FCT), and 774 local government areas (LGAs). States are often grouped into six "geopolitical zones" for analytical purposes, although these have no administrative existence (see Figure 14 for an example). Along with overall policy, the federal government is responsible for tertiary-level health services, state governments are responsible for secondary services and local governments are responsible for primary services. At the same time, a number of programs and parastatal agencies, usually based at the federal level with state counterpart organizations, work on PHC services. Although national policies provide a certain measure of standardization, each level of government is largely autonomous in terms of financing and managing health services under its responsibility.

3. *The economy has grown in recent years, but the democratic government continues to confront a legacy of mismanagement and corruption.* Windfall oil revenues along with prudent government macroeconomic and fiscal policies have contributed to significant growth in the economy since 2003, keeping pace with and exceeding population growth. Real GDP growth is projected at 7.4% in 2005. The long years of military rule weakened, politicized, and corrupted government bureaucracies. After taking office in 1999, the democratic government has taken several steps to address these systemic issues, including anti-corruption campaigns and civil service reform. Improvements in governance and management of the health system will depend to a great extent on these overall reforms.

4. *Poverty is widespread and inequalities are large.* Despite recent economic growth, most Nigerians remain very poor. In 2005, projected GDP per capita is US\$ 582 (IMF, 2005a), while non-oil GDP per capita, an indicator for the resources directly available to households, is projected to be US\$ 224. The 2004 Nigeria Living Standards Survey (NLSS) indicates that income is highly unequally distributed, with large urban-rural and regional disparities. (Federal Office of Statistics, 2004) These data show that in broad terms, poverty is highest in the northern zones and lowest in the south, with the North-Central zone situated in between.

## HEALTH OUTCOMES

5. *There have been slight improvements in the past few years, but child mortality remains high, as one million under-five children die in Nigeria annually.* The 2003 Nigeria Demographic and Health Survey (NDHS) provides the most reliable and representative estimates for child health indicators. The survey found that during the 1999-2003 period, under-five mortality was estimated at 201 per 1,000 live births and infant mortality was 100 per 1,000.<sup>1</sup> These rates are higher than what would be expected given Nigeria's GDP per capita, and because of the country's population size, translate into human suffering on a large scale. Nevertheless, after stagnating during the 1990s,<sup>2</sup> child mortality rates seem to have started to decrease in the past few years.

6. *Similarly, the nutritional status of Nigerian children is poor, showing little improvement compared to 1990.* The 2003 NDHS found that 38% of under-five children suffer from chronic malnutrition (stunting) and 9% from acute malnutrition (wasting), rates which are consistent with other poor countries in Sub-Saharan Africa. Estimated chronic malnutrition has decreased from almost 42% in 1990, but the prevalence of wasting has remained the same. There is some evidence that suggests that malnutrition increased during the 1990s, but has significantly declined since 2000. The proportion of children aged 6-35 months that were chronically malnourished increased from 44% in 1990 to 50% in 1999 (NDHS 1990, 1999). In 2003, however, the proportion had declined to 42%.

7. *High child mortality and malnutrition are concentrated in the north of the country.* The issue is discussed further below, but it must be emphasized at the outset that national averages mask significant regional disparities. Under-five mortality in the North West and North East regions exceeds 260 per 1,000, while it is less than 180 per 1,000 in the rest of the country. Child mortality in the north is, therefore, among the worst observed anywhere, while rates in the rest of the country are comparable to other sub-Saharan African countries such as Kenya, Tanzania, and Ethiopia.

8. *The main causes of child mortality are communicable diseases, particularly malaria, which can be easily prevented or treated.* The pattern of child morbidity in Nigeria is similar to other poor countries in that, in addition to neonatal causes, most child deaths are due to diarrhea, pneumonia, and malaria, often in association with malnutrition. It is estimated that malaria causes around one-third of child mortality, equivalent to about 300,000 deaths among under-five children annually.

9. *Fertility remains high, as on average, each woman will have over five children.* The 2003 NDHS estimated the total fertility rate (TFR) at 5.7.<sup>3</sup> Although this has decreased from 6 in 1990, it is still higher than the estimated average for Sub-Saharan Africa. High fertility has wide societal and economic effects, such as limiting women's labor force participation, and straining household and community resources.

10. *Maternal mortality is similarly high; an estimated 37,000 women die in childbirth annually in Nigeria.* High fertility increases women's risk of death during childbirth. Other factors

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<sup>1</sup> Under-five mortality ( ${}_5q_0$ ) is the risk of death during the first five years of life, while infant mortality ( ${}_1q_0$ ) is the risk of death during the first year of life.

<sup>2</sup> Data from the 2003 NDHS indicate that under-five mortality during the period 1994-98 was 236 per 1,000, little changed from the rate of 234 estimated for 1989-93.

<sup>3</sup> The total fertility rate is the number of children a woman would have over her lifetime if she experienced the age-specific fertility rates observed by the survey.



## Summary and Conclusions

contributing to maternal mortality are poor maternal nutrition and care, particularly emergency obstetric care (EOC). It is estimated that the maternal mortality ratio in Nigeria is around 800 per 100,000 live births, a similar order of magnitude relative to other poor countries, and implying around 37,000 maternal deaths per year.<sup>4</sup>

11. *Many women have low nutritional status and micronutrient deficiency.* The 2003 NDHS estimated that 15% of adult Nigerian women have a low body mass index (BMI) indicating malnutrition. Only countries with lower income per capita – such as Ethiopia, Eritrea, Madagascar, Chad, and Niger - have a higher proportion of women with such a low BMI. A 2003 nutrition survey found that 10% of pregnant women were deficient in vitamin A, 20% suffered from iron deficiency and 4% had severe iodine deficiency.

12. *Adult HIV prevalence is estimated at 5%, so that Nigeria has the third highest number of infected people in the world – an estimated 3.5 million.* A 2003 national sentinel survey found that adult HIV prevalence was 5%. This is partially encouraging, since it is an apparent decrease from the 2001 estimate of 5.8%, but the data are not sufficient to conclude that the epidemic has stabilized. Estimated prevalence in 1992 was 1.8%. State-level estimates from the 2003 survey do not show any broad regional pattern.

13. *Nigeria has the fourth highest number of tuberculosis (TB) cases in the world, while other infectious diseases, such as meningitis, also represent a considerable health burden.* Estimated annual TB incidence is 293 new cases per 100,000 persons; estimated prevalence (both new and old cases) of 546 per 100,000 implies that over 700,000 people have TB in the country. Nigeria experiences periodic epidemics of meningitis and suffers from numerous other endemic communicable diseases.

14. *Although communicable diseases are major causes of mortality and morbidity in the country, there are reasons to believe that non-communicable diseases (NCDs) represent an increasing share of Nigerians' burden of disease.* Major NCDs in Nigeria include: hypertension, diabetes mellitus, coronary heart disease, sickle cell disease, cancers, G6PD deficiency anemia, mental health, road traffic injuries and violence, oral health, blindness, rheumatic heart disease, stroke, osteoporosis.

15. *As at 2001, Nigeria ranked second on the weighted scale of countries with very high road traffic crashes. (WHO Nigeria publication on Road safety 2004).* Similarly, according to data from the Federal Road Safety Commission (FRSC), over 7,000 Nigerians die every year from road traffic crashes, while over 26,000 injuries are recorded.

## HEALTH CARE UTILIZATION

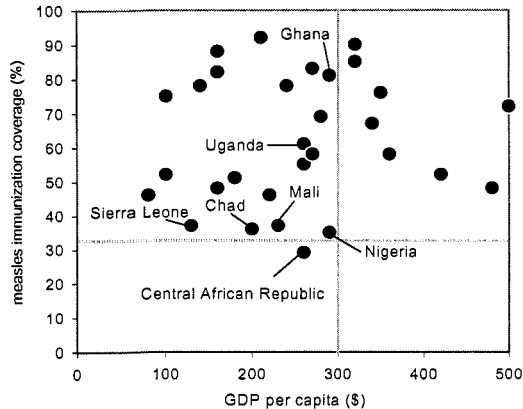
16. *Immunization rates in Nigeria are extremely poor and have declined significantly in the last decade.* The 2003 NDHS found that only 13% of one-year-old children had received all recommended immunizations, compared to 27% in 1990. Coverage of measles immunization in 2003 was 36%, compared to 46% in 1990. Immunization coverage in Nigeria is among the lowest in Sub-Saharan Africa (and the world), comparable to war-affected countries such as Sierra Leone (Figure 1).

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<sup>4</sup> Order-of-magnitude comparisons of maternal mortality ratios are necessary due to their wide confidence intervals. In the Nigeria case, because the necessary data are not available, the estimate is from a model (AbouZahr and Wardlaw, 2001).

## Summary and Conclusions

Figure 1. Measles immunization coverage by GDP per capita (SSA countries with GDP per capita less than US\$ 500)



Sources are World Bank *HNPStats* (estimates are for 2001) and 2003 NDHS.

17. *Exclusive breastfeeding is limited, although it has markedly increased over the past decade.* Exclusive breastfeeding for the first six months of life has numerous immediate and future health and nutritional benefits for children. Although almost all children in Nigeria have been breastfed, only 17% of children below six months of age are exclusively breastfed. Nevertheless, this is an improvement from 1990, when it was observed that only 1% of children below six months of age were exclusively breastfed.

18. *Utilization of antenatal and delivery care, although consistent with other countries of similar income per capita, has not improved in the last decade.* In 2003, 60% of pregnant women received antenatal care and 36% received delivery care from a health professional, little changed from 1990. Coverage of professional delivery care, an important strategy to reduce maternal mortality, is similar to other Sub-Saharan Africa countries with GDP per capita of under US\$ 500.

19. *Knowledge of modern methods of contraception is increasing, but their current use is very limited.* In 1990, only 40% of married women had any knowledge of modern methods of contraception, but by 2003 this proportion had increased to 76%. However, only 12% of married women use any method of contraception and only 8% use a modern one.

20. *Awareness of HIV/AIDS is almost universal and there is evidence that some preventive interventions are starting to reach people, but knowledge of prevention is more limited, and many people continue risky behavior.* The NDHS 2003 indicates that about 86% of women and 97% of men have heard of the disease. However, only 45% of women and 63% of men know that condom use is a means of prevention. Many do not translate knowledge into behavior: 39% of men and 14% of women report having had high-risk sex in the past year and less than 50% of men and less than 25% of women report using a condom the last time they had high-risk sex. On the other hand, the 2003 NDHS found that non-trivial proportions of men (13.6%) and women (6.4%) had been tested for HIV, indicating that coverage of voluntary counseling and testing services (VCT) may be increasing.

21. *Progress in combating malaria and TB has been slow.* Use of one of the main preventive interventions against malaria, insecticide-treated nets (ITNs), remains rare in Nigeria, as just over 1% of households possess an ITN. Coverage of effective treatment is also low. The 2003 NDHS found that of children who had fever or convulsions in the previous two weeks, only 34% received an anti-malarial drug, and only 25% received the drug within a day of the onset of

## Summary and Conclusions

symptoms. With regard to TB, there has been progress in increasing DOTS<sup>5</sup> coverage, but case detection is still very low, at an estimated 18% of all cases.

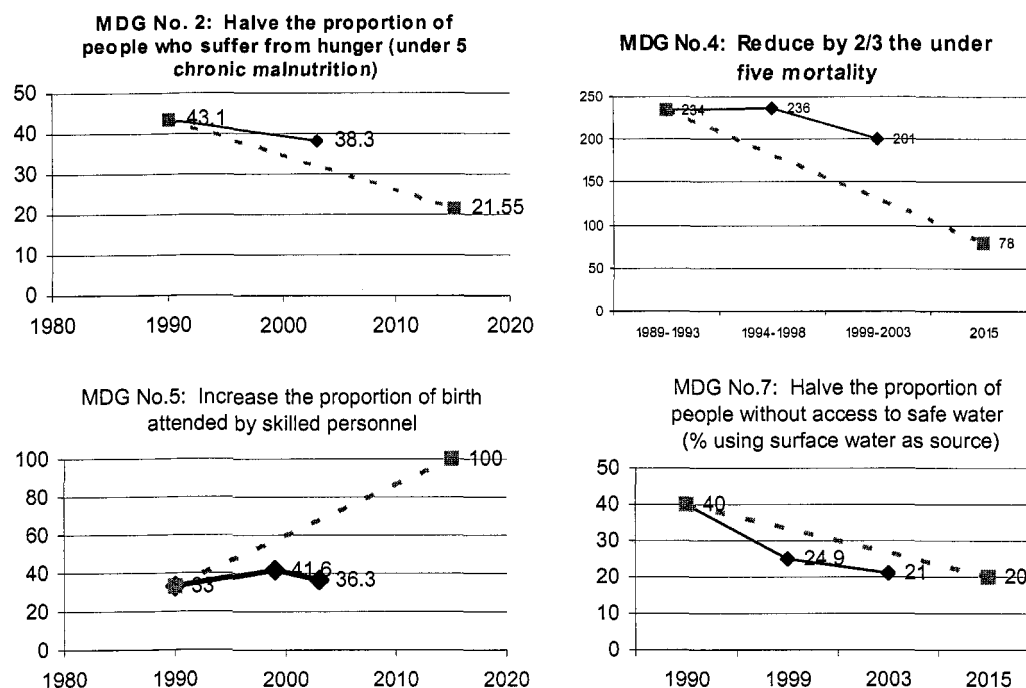
22. *Between a quarter and half of sick children and adults do not receive care.* The 2003 NDHS found that 57% of children with diarrhea and 21% of children with cough or fever in the previous two weeks did not receive care. Similarly, the 2004 NLSS found that 44% of children and adults who had an illness or injury in the previous two weeks did not receive care.

23. *Half of women report severe problems in accessing health care, with cost and distance the most frequent barriers.* The 2003 NDHS asked women about the biggest problems they have in accessing health care when they need it and 47% specified one or more barrier.<sup>6</sup> The most often reported problems were the cost of treatment (30% of women) and distance or lack of transport (24%).

## MILLENNIUM DEVELOPMENT GOALS (MDGs)

24. *In general, the 1990s were a lost decade for Nigeria, so that achieving the MDGs in the next ten years represents a considerable challenge.* The health-related Millennium Development Goals (MDGs) are to, between 1990 and 2015, halve poverty and hunger, cut under-five mortality by two-thirds, reduce maternal mortality by three-quarters, and halt and begin to reverse the incidence of HIV/AIDS, malaria, TB, and other major diseases.

Figure 2. Progress towards meeting the Millennium Development Goals, Nigeria, 1990-2003



Sources: NDHS 1990, 1999, 2003.

Note: The unbroken line shows the trends in some of the MDGs indicators while the dashed line the path necessary to meet the goals by the year 2015.

<sup>5</sup> Directly-observed treatment, short-course

<sup>6</sup> Respondents could list more than one problem.

## Summary and Conclusions

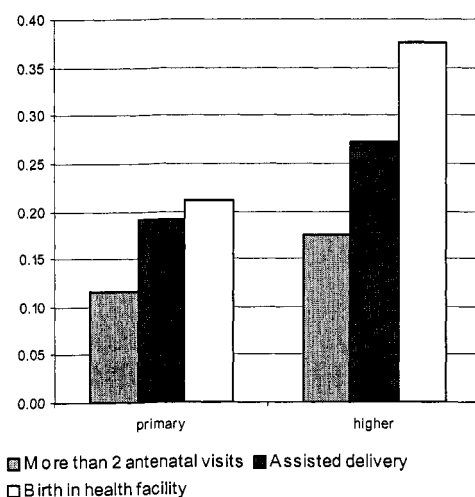
25. *There seems to have been some progress in the past few years on child malnutrition and mortality, but maternal care has not improved.* Although the prevalence of acute malnutrition has not changed since 1990, chronic malnutrition among children has decreased slightly compared to 1990 (Figure 2). As seen in the Figure there has also been a slight reduction in under-five mortality, particularly in recent years, even though it remains at a very high level. In contrast, coverage of skilled delivery care has stagnated and even slightly decreased in recent years. Finally, although the proportion of people who must rely on surface water as their source for drinking water has been cut in half since 1990, many have moved to other potentially unsafe sources so that only 42% of households had a safe source in 2003.

26. *The evidence is mixed on progress in combating HIV/AIDS, TB and malaria.* Knowledge of HIV/AIDS has increased, a small but significant proportion of adults have benefited from VCT, and sentinel surveys provide some evidence that the HIV/AIDS epidemic is not rapidly expanding. On the other hand, a significant proportion does not know of key preventive measures and many continue to practice risky behaviors. With regard to malaria, ITN coverage is close to zero and treatment is not provided in many cases. With regard to TB, DOTS treatment centers have expanded, but case detection remains very low.

### HOUSEHOLD AND COMMUNITY DETERMINANTS OF HEALTH OUTCOMES AND SERVICE UTILIZATION

27. *Health outcomes depend on a variety of household and community-level determinants, translated into health status in various ways, including through access to and utilization of quality health services.* Among the more important household and community characteristics shown in many contexts, including Nigeria, to be associated with both health outcomes and health service utilization are maternal education and household socio-economic status. Urban/rural and regional differences in health status and health service utilization are also evident and may reflect differences in a range of factors, including economic conditions and health service availability. The various factors associated with health outcomes and service utilization are analyzed separately in the following chapters. This section summarizes those findings.

Figure 3. Change in probability of receiving care associated with education level (compared to women with no education), Nigeria, 2003



The estimates are the change in probability of receiving care associated with primary and higher education compared to women with no education after controlling for a variety of other factors. Authors' estimates from 2003 NDHS data.

## Education

28. *Maternal education has been observed in many contexts to be closely associated with improved health outcomes and Nigeria is no different.* Education can benefit mothers and their children in a number of ways, increasing their knowledge of health practices, ability to integrate health education messages, and willingness and confidence to receive quality health services from the health system. Regression analysis of 2003 NDHS data indeed shows that the risk of child mortality significantly decreases as maternal education increases, even after controlling for household economic status and other factors. Risk of mortality for children of women with primary education is 20% lower than children of women with no education, while the risk for children of women with secondary or higher education is 40% lower. Similar reductions in the risk of child chronic malnutrition are evident.

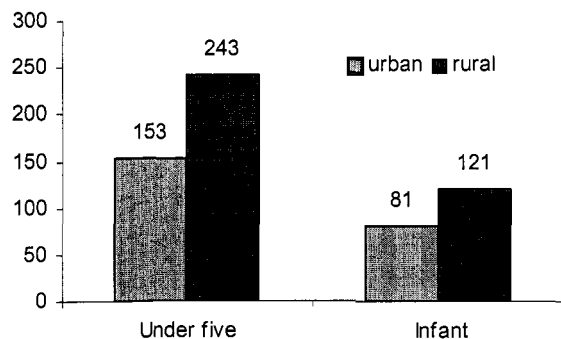
29. *Health gains due to maternal education are partly through healthy behaviors and increased utilization of health services.* Regression analysis of the 2003 NDHS data found that infants of mothers with education are more likely to be exclusively breastfed. Similarly, such models, always controlling for household wealth and other factors, show that children of better educated mothers are more likely to be immunized, to receive Vitamin A supplementation, and to be taken for medical treatment when ill. Education also has evident benefits for women themselves, increasing their likelihood of using modern contraception, and of receiving antenatal and delivery care from a medical provider (Figure 3).

## Urban-Rural Differences

30. *Health outcomes are worse in rural areas than in urban areas.* Consistent with experience everywhere in the world, important health outcome indicators such as child mortality and malnutrition are lower in rural areas than in urban areas in Nigeria. The 2003 NDHS found, for example, that under-five mortality was an extremely high rate of 243 per 1,000 in rural areas, compared to 153 per 1,000 in urban areas (Figure 4). Similarly, 43% of under-five children in rural areas are chronically malnourished (stunted), compared to 29% in urban areas.

31. *Similarly, health service utilization is lower in rural areas.* One of the factors behind urban-rural differences in health outcomes is differences in utilization of health services. For example, in 2003, 7% of one-year-old children in rural areas had all the recommended vaccinations, compared to 25% in urban areas. In rural areas, 51% of pregnant women receive antenatal care, compared to 83% in urban areas; 27% of deliveries are attended by qualified personnel in rural areas, compared to 59% in urban areas.

Figure 4. Infant and under-five mortality in urban and rural areas, Nigeria, 1993-2003 (mortality per 1,000 live births)



Source is 2003 NDHS.

## Summary and Conclusions

32. *Rural residents are less likely to receive care while cost and physical accessibility of health services are higher barriers to care than for urban residents.* The 2003 NDHS found that while 40% of children with cough or fever in the previous two weeks received medical care in urban areas, the proportion was only 28% in rural areas. More women in rural areas (58%) than in urban areas (26%) reported one or more major problems with accessing health care, with cost (38% in rural areas and 17% in urban areas) and distance or transport (32% in rural areas and 9% in urban areas) representing the main barriers.

33. *Urban areas may have fared better than rural areas over the past decade, but the available evidence on trends is mixed.* Improvement in child malnutrition may have been somewhat greater in urban areas, with prevalence of stunting decreasing from 35% in 1990 to 29% in 2003. This compares to rural areas where it was 46% in 1990 and 43% in 2003. Immunization coverage decreased everywhere, but less so in urban areas. In 1990 53% of one-year-old children in urban areas were fully vaccinated, while in 2003, the proportion was 25%. In rural areas, 23% were fully vaccinated in 1990, compared to only 7% in 2003, representing a decline of around two-thirds. However, differences in trends in antenatal and delivery care are not evident. In 1990 in urban areas, 61% of deliveries were attended by a health professional and this hardly changed by 2003, when the proportion was 59%. Similarly, in rural areas, the proportion was 26% in 1990 and 27% in 2003.

## Regional Disparities

34. *Regional differences in health outcomes mirror patterns of poverty, with the northern regions experiencing much higher child mortality and malnutrition than the south.* The 2003 NDHS found that under-five mortality rates in the North East and North West zones are more than double the rates in the South West and South East (Table 1). Similarly, chronic malnutrition in the north is higher than in the south, as more than half of under-five children in the North West are stunted. As is the case with poverty rates, the North Central zone is situated in between, with under-five mortality and malnutrition rates higher than in the south but lower than in the North West and North East. Similarly, the South South zone stands somewhat apart from the rest of the south, particularly with regard to child mortality.<sup>7</sup> It should be noted, however, that regional patterns in HIV infection are not so clear, as the 2003 sentinel survey found widely varying results for states within the same regions.

Table 1. Under-five mortality and chronic malnutrition across regions, Nigeria, 2003

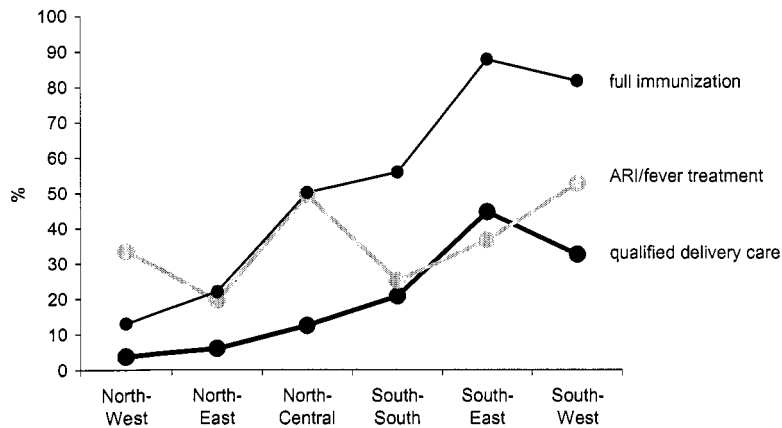
	under-5 mortality (per 1,000)	chronic malnutrition (% under-5s)
North Central	165	31
North East	260	37
North West	269	53
South East	103	23
South South	176	16
South West	113	23

Source is 2003 NDHS.

<sup>7</sup> The South South zone evades easy generalization as health indicators seem to reflect complex patterns. For example, child mortality is high but chronic malnutrition is low. Very high infant mortality is concentrated in rural areas. Possible explanations could include pollution or particularly poor health care services in rural areas.

## Summary and Conclusions

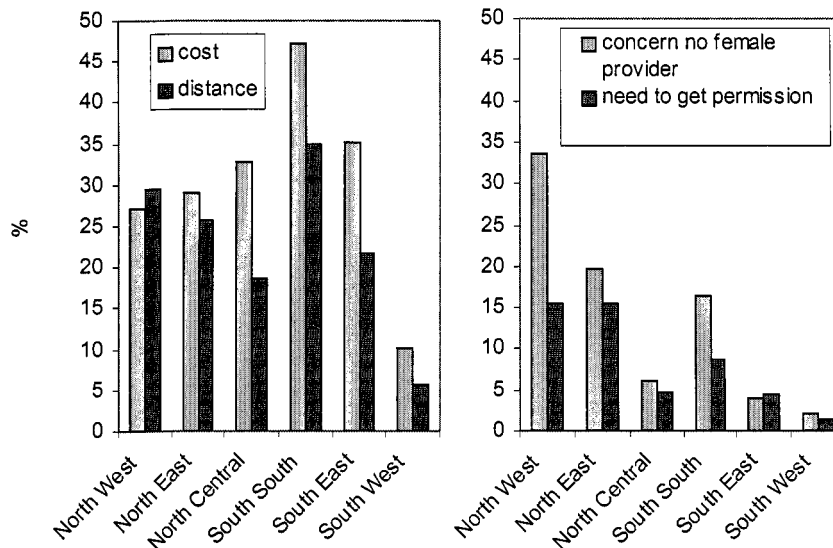
Figure 5. Regional differences in health service utilization, Nigeria, 2003



Source is 2003 NDHS.

35. *Regional patterns in health service utilization are similar to those of health outcomes.* Figure 5 illustrates regional differences in full immunization among one-year-old children, treatment of acute respiratory infection (ARI) or fever among under-five children, and delivery care by qualified personnel. It shows that utilization of these basic services is lowest in the North West and North East zones and highest in the South East and South West zones. Utilization in the North Central and South South zones is situated in between (except for ARI/fever treatment in the North Central zone, which is higher than in the south). Regression models find that in many cases, regional differences persist after accounting for differences in a variety of factors, including household socio-economic status and even indicators of availability of health services.

Figure 6. Women's reported barriers to accessing health care, Nigeria, 2003 (% of women)



Source is 2003 NDHS.

## Summary and Conclusions

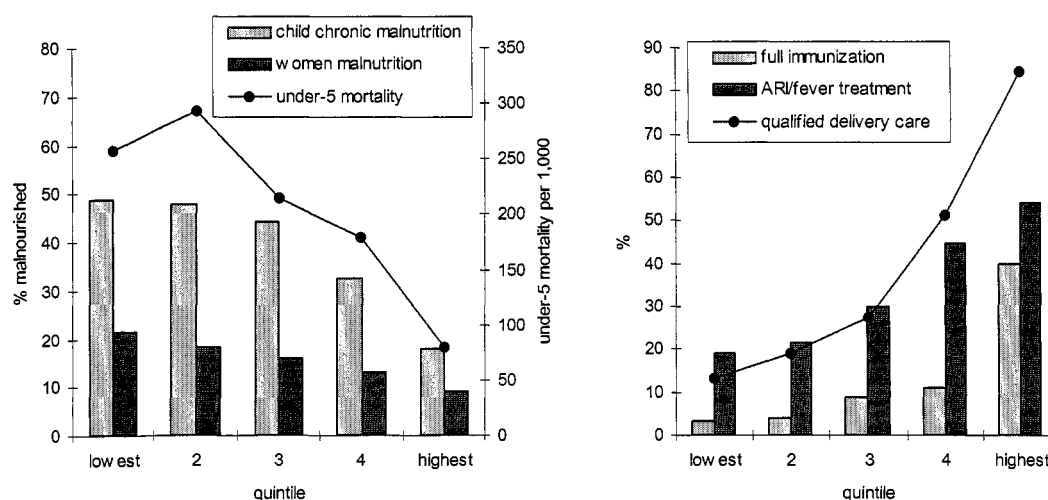
36. *In general cost and distance are major barriers to health service utilization across the country, but cultural factors influencing care-seeking are more important in the north.* The 2003 NDHS found that the highest proportions of women (over 50%) who report one or more major problems with accessing health care live in the North East, North West, and South South. In contrast, only 16% of women in the South West reported such problems. However, Figure 6 indicates that cost and distance are major barriers to care in most of the country, although the South West continues to stand out with much lower proportions reporting such problems. Barriers to care related to cultural factors, in particular women's concern that there will be no female health provider and women's need to get permission from their husband in order to seek care are cited as major problems mostly in the North West, North East, and South South.

## Socio-economic Disparities

37. *The poor suffer from greater mortality and malnutrition.* Poverty has been shown to go together with ill health and low health service utilization in many contexts. The urban-rural and regional differences described above reflect, to a large extent, patterns of poverty in the country. Under-five mortality among the poorest fifth of the population is estimated at 257 per 1,000, compared to 79 among the highest quintile (Figure 7). Similarly, 49% of under-five children in the poorest quintile suffer from chronic malnutrition, compared to 18% in the highest quintile, and 22% of the poorest women have a low body mass index (BMI), compared to 9% in the highest quintile.

38. *A factor contributing to the worse health situation of the poor is their lower utilization of basic health services.* For example, children in the highest wealth group are ten times more likely to be fully immunized than the poorest children and the most well-off women are almost seven times more likely to have a qualified delivery attendant. Similarly, 19% of children with cough or fever in the poorest quintile receive medical treatment, compared to 54% among the highest quintile (Figure 7). The 2004 NLSS found that only around 40% of people in the lowest quintile with an illness or injury received care, compared to around 70% in the highest quintile.

Figure 7. Socio-economic disparities health outcomes and basic service utilization, Nigeria, 2003

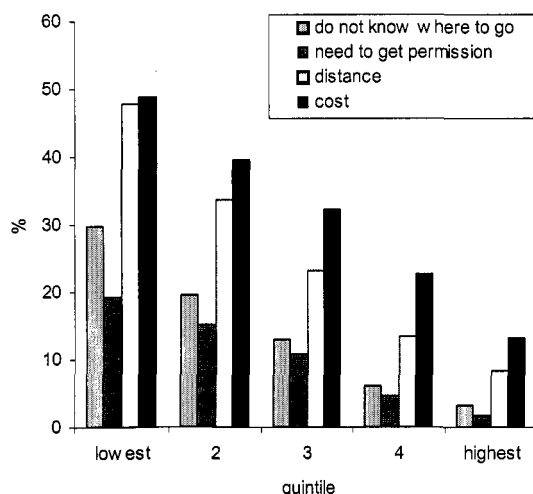


Source is 2003 NDHS.



## Summary and Conclusions

Figure 8. Women's reported barriers to accessing health care, Nigeria, 2003 (% of women)



Source is 2003 NDHS.

39. *Cost and distance are the major barriers to care for the poor, while knowledge and cultural factors are also more important among the poor.* Figure 8 indicates that cost is the most important reported barrier to care for women of all socio-economic levels, but much more so for the poorest. The cost of health services is an important problem for almost half of the poorest women, compared to 13% among the highest quintile. Although distance is also an often-reported barrier for women in all quintiles, its importance increases (in relation to cost) as women get poorer. Finally, lack of knowledge of where to obtain health services is a far more important factor for the poorest, as are cultural factors such as the need to obtain permission before seeking treatment.

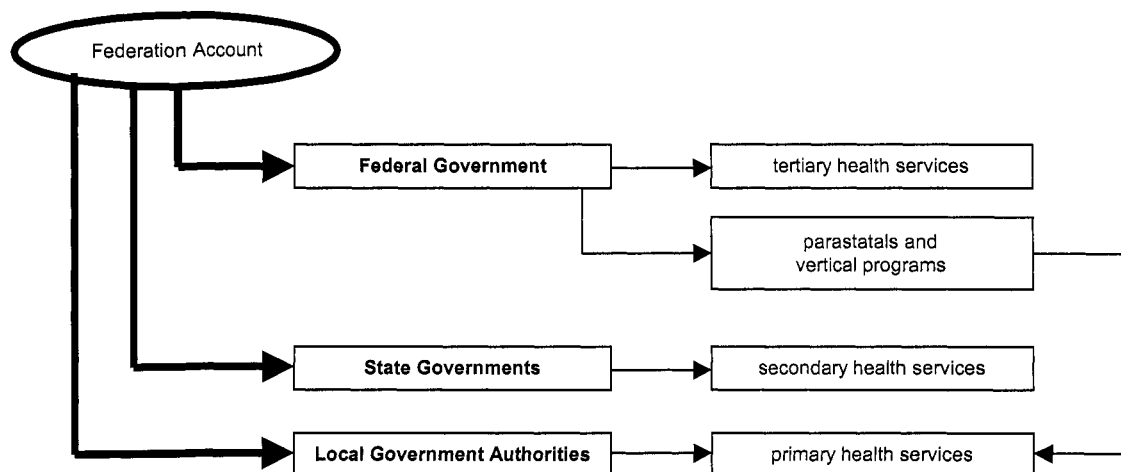
## HEALTH SYSTEM

### Health System Organization

40. *The Nigerian health system is decentralized under a federal structure.* The federal level is responsible for overall policy as well as tertiary services, the state level is responsible for secondary services, and local governments are responsible for primary services.

41. *These health responsibilities are tied to funding flows, leading to poor coordination and integration of the referral system.* Figure 9 illustrates how the government health system is funded. The lion's share of government resources comes from oil revenues to the Federation Account, which is shared between levels of government according to an allocation formula. However, these resources are not sectorally earmarked and states and LGAs are not required to provide budget and expenditure reports to the federal government. This considerably limits the effective influence that the Federal Ministry of Health (FMOH) may have over primary and secondary health services, and that the state Ministries of Health (SMOHs) may have over PHC services. This, combined with poor coordination between levels of government, has led to limited integration of the referral system, impeding the connection between primary and first referral services.

Figure 9. Government funding flows to the health system in Nigeria



42. *Parastatal agencies and vertical programs, particularly at the federal level, also intervene across the different levels of services.* Federal and state parastatal agencies have been created to implement programs and manage services across the different levels. In the late 1980s, Hospital Management Boards (HMBs) were created at the federal and state levels to manage government tertiary and secondary level facilities respectively. Federal parastatals created in the early 1990s included the National Agency for Food and Drug Administration and Control (NAFDAC), National Primary Health Care Development Agency (NPHCDA), National Programme for Immunization (NPI), and the Population Activities Fund Agency (PAFA). By 1999 at the federal level, there were 16 programs, at least 11 agencies and departments, and 14 different policies or strategies to address particular issues. More recent organizations are the National Action Committee on AIDS (NACA) and the National Health Insurance Scheme (NHIS). The structural impetus behind these federal initiatives was to address problems, particularly at the PHC level, through direct provision of resources and implementation programs. However, the effectiveness of these agencies and programs has been lessened by fluctuating funding levels, problems with management and political interference, and poor coordination with state and local governments.

### Governance, Accountability and Management

43. *Like other sectors, the health system is recovering from a period of poor governance and corruption.* The long decades of military rule weakened, politicized, and encouraged rent-seeking in government bureaucracies, and the health system was no exception. Governance and accountability is particularly weak at the local level. This is partly due to capacity constraints at this level, exacerbated by the proliferation of LGAs, which has spread capacity even more thinly. In 1988, when responsibility for PHC services was assigned to the local level, there were only 158 LGAs, compared to 774 in 2005. But capacity limitations are not the only issues; there are also significant problems with commitment, governance, and accountability at the local government level which is reflected in the insufficient release of funds to basic health services. For example, an assessment in Benue state suggests that salaries are met but there is little funding made available for other non-salary recurrent costs (PATHS, 2003). There is also some evidence that even wages are not being paid in some areas; for example, a 2003 World Bank study found that 42% of staff in Kogi state reported not receiving any salary for at least 6 months during the previous year.

## Summary and Conclusions

44. *There are general problems with planning, budgeting, and financial management at all levels of government.* At every level, from the FMOH to PHC facilities, lack of control and uncertainty about funding undermine rational planning and budgeting. For example, within the FMOH, individual department heads do not control personnel budgets. At the same time, plans and budgets may be approved, but managers lack confidence that funds will actually be released, especially for non-wage expenditures. Strategic planning is largely not done, and allocation of resources (infrastructure, equipment, and staff) is done in an *ad hoc* fashion driven by political considerations. Although budgets are drawn, they do not correlate with expenditures and there are no financial performance reviews. Financial management is focused primarily on salaries and is weakest at the local government level.

### Community Role

45. *A number of assessments have found that a variety of community-based organizations (CBOs) are active in Nigerian communities,* including traditional and kinship institutions, community associations, occupational associations, women's groups, ethnic associations, faith-based groups, women's groups, and more institutionalized non-governmental organizations (NGOs). Community involvement at the local level has long been recognized as important, but is difficult to achieve. Measures can be taken for greater community involvement in governance of the health system. Such initiatives could be seen as bottom-up components of a comprehensive strategy which also involves more top-down reforms at the federal and state levels. The 1988 National Health Policy emphasized the community's role in strengthening PHC services, and its implementation included the creation of PHC Management and Technical Committees at the LGA level, District (Ward) Development Committees, and Village Development Committees. It seems that although these committees have been put in place in most cases, many are not adequately functional. For instance, a 2001 survey of 202 LGAs in two states in each of the six geopolitical zones found that 89% had a PHC Management Committee. However, only 27% of such committees had met in the previous three months.

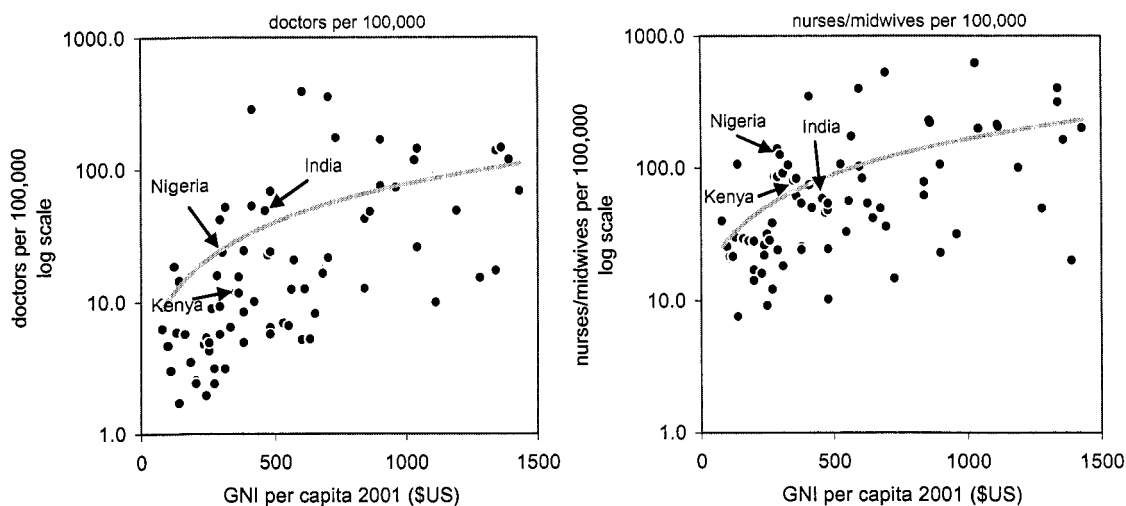
46. *The large presence of community-based organizations (CBOs) in Nigerian communities provides a basis for enhancing community involvement in health service administration, while experiences in some locations can provide examples and lessons.* However, efforts to strengthen the role of civil society organizations in health system governance will face a number of limitations. First, the numbers of civil society organizations are not evenly distributed. A World Bank (1996) study found that the poorest communities and regions of the country also tend to have fewer and weaker CBOs. Second, in general, CBOs have significant capacity constraints, often characterized by a "missing middle," between their membership and a limited number of capable leaders. Third, CBOs are just as vulnerable as other structures in Nigerian society to factionalism, patronage, and corruption.

### Human Resources

47. *A large number of doctors and nurses are being trained in the country.* The number of doctors in Nigeria is in line with other countries of similar income per capita while the number of nurses exceeds what would be expected (Figure 10). There are about 24 doctors and 126 nurses/midwives per 100,000 people. Nevertheless, a large number of Nigerian doctors and a growing number of nurses are not working in the country and the desire to migrate abroad is common among doctors for financial and career development reasons.

## Summary and Conclusions

Figure 10. Doctors and nurses/midwives per 100,000 population by GNI per capita, 2001 (countries with GNI per capita under US\$1,500)



Note: Countries of the former Soviet Union and former Yugoslavia are excluded.  
Data sources are World Development Indicators, Joint Learning Initiative (2004) and NPC and UNICEF (2001).

48. *In general remuneration and working conditions attract skilled health personnel to urban areas and the private sector.* Most doctors and nurses work in higher level facilities. Available data also indicate that about 74% of doctors practicing in Nigeria work in the private sector [National Association of Resident Doctors, cited by Dare *et al.* (2003)]. In terms of regional distribution, while there are no significant differences in the number of nurses per capita across regions, there are more doctors per capita in the south and more public sector PHC personnel per capita in the north.

49. *Most doctors are male and most nurses and midwives are female, and the majority of community health workers are female.* A 2003 survey of health personnel in five states (Ondo and Lagos in the South West, Cross River in the South South, Kano in the North West, and Plateau in the North Center) found that over 80% of doctors are male and over 70% of nurses and 90% of midwives are female. About 66% of community health workers are female, which may improve cultural accessibility of services. Most records clerks are female.

50. *Human resource management in the public sector requires improvement.* Federal and state ministries of health and local health departments have little control over salary levels, yet the wage bill accounts for most of their budget. Rigid civil service rules inhibit effective personnel management and lead to undesirable results. Moreover, the lack of support (supplies and equipment) undermines performance and poor remuneration leads public sector workers to supplement their incomes. Traditional birth attendants and village health workers have been trained in a significant proportion of communities, but most do not receive regular support from the health system.

## Drug Supply

51. *Drug supply is inadequate in public sector facilities, particularly PHC services.* When resources are available to local governments, salaries are the first priority so that there is often little left for other recurrent costs, particularly drugs, leading to “out of stock syndrome” in many PHC facilities. A 2001 survey of 674 facilities in 202 LGAs found that 46% had less than half of the essential drugs list available. Secondary and tertiary facilities tend to have more regular drug supply, likely related to the better overall funding available at the federal and state levels.

## *Summary and Conclusions*

52. *Drug revolving funds have been established widely, especially in the Northern regions, and sometimes with external support.* However, these funds have not been effective in ensuring reliable supply. The 2001 survey of facilities in 202 LGAs found that around 40% of facilities had a drug revolving fund in place, and that in most regions, this proportion was over 60%, reaching 75-85% in the north. The lowest proportion (27%) was in the South West, where presumably private sector drug supply is ample, particularly in Lagos. However, the drug revolving funds do not seem to have ensured regular supply, as over half of facilities experienced a stock-out in the previous three months. Problems experienced by drug revolving funds include requirements by state and local governments that drug sale proceeds be centralized, which loosens accountability and control, so that funds are often used for purposes other than to replenish drug supply. Even when retained by the facility, funds are often used to meet other costs, in particular, staff remuneration. More successful experiences are those where local governance and accountability have been strengthened overall, particularly with community involvement.

53. There has been a strong private sector response to the shortcomings of the public system's drug supply. This has been facilitated by the regulatory environment, which officially registers both qualified pharmacists and patent medicine dealers. The latter are not permitted to fill prescriptions, but in practice this is hardly enforced. Informal and itinerant drug hawkers also sell drugs, often obtaining their supplies from patent medicine dealers. Much supply is imported, but there are also around 200 manufacturers in the country.

54. *There are problems with rational use of pharmaceuticals.* A large number of patients receive medical advice from potentially unqualified drug sellers, raising concerns about inappropriate use of drugs. Problems have also been observed with the rational use of drugs prescribed in public sector facilities.

55. *There are concerns about drug quality, but little empirical evidence is available.* It has been estimated that up to 40% of drugs in circulation in Nigeria are fake. However, this term tends to be applied to drugs which have not been registered by the National Agency for Food and Drug Administration and Control (NAFDAC), and for which there is no evidence about quality one way or another. However, the large number of unqualified drug sellers also raises concerns on the quality of the drugs they sell.

56. *The pharmaceutical regulatory framework is in place* and NAFDAC is the implementing agency, having registered a total of 4,363 medicines, including 83 traditional medicines which have been proved safe. A National Drug Policy was adopted in 1990. An Essential Drugs List was first published in 1986 with 204 drugs; it now contains 484. This inclusive list is one reason why the 2002 FMOH assessment found that 90% of reviewed prescriptions were for drugs on the list. However, a 2001 facility survey found that the list itself was available in only 47% of facilities.

## **Equipment and Support Services**

57. *Most health facilities in all regions are poorly equipped, but equipment availability increases with the level of care.* A 2001 health facility survey found that only around 25% of health facilities had more than half of the minimum package of equipment, while 40% had less than a quarter of the set of equipment. Only 30-40% of PHC centers, comprehensive PHC centers and secondary hospitals had more than half of the defined set of equipment. Similarly, a survey of public sector primary and secondary health care facilities showed that only 66% of PHC facilities and 80% of the hospitals had basic obstetric care instruments.

## *Summary and Conclusions*

58. *Lack of adequate funding for PHC services at the local level has undermined repair and maintenance, as well as capital investment, in services such as ambulances, laboratories, electricity, cold chain, water supply, and environmental sanitation. Similarly, blood supply and screening is largely ad hoc, but a number of centralized transfusion centers are being established.*

59. *The National Health Management Information System was established in 1990, but reporting is poor and incomplete and there are a number of parallel systems. Reporting requirements are complex and unclear, and facility record-keeping is incomplete. A 1994 survey of PHC services found no less than 34 different reporting formats for different vertical programs. A considerable challenge is that in most cases, private health service providers are not included in reporting systems, missing a large proportion of the relevant data.*

60. *Nigeria is not alone in its difficulties in operating a reliable health management information system in a context of decentralization, and large household surveys can provide a solution in terms of reliable data. In such situations, facility and household surveys can often provide reliable sources of data on a number of issues, and this report relies heavily on a number of such studies. The 2001 NPHCDA facility survey provides data not available elsewhere, and a repeat study would be very useful. The government's experience with population-representative household surveys has improved dramatically in the past few years, as a Nigeria Demographic and Health Survey (NDHS) and a Nigeria Living Standards Survey (NLSS) were completed in 2004. A census will provide essential demographic data.*

## **HEALTH SERVICES AND PROGRAMS**

61. *Standard service packages have not been officially adopted in Nigeria although related policy work has been done on this by the FMOH. However, it is generally understood that PHC services comprise basic preventive and curative interventions. Secondary services include delivery care and management of delivery complications, care for complicated and severe malaria, and surgical services such as obstetric, orthopedic and radiological. Most secondary facilities also provide a range of PHC services, such as antenatal care. The tertiary level should be focused on medical training and specialized services, including management of cancer, radiological investigation, renal dialysis and advanced surgical care.*

### **Immunization**

62. *The performance of immunization services in Nigeria has risen and fallen based on domestic and international interest and funding. To increase immunization coverage the Expanded Program on Immunization (EPI) was established in 1979; however, poor funding and vaccine supply, insufficient community mobilization, and over-reliance on high-cost mobile campaigns kept vaccine coverage low. These problems have continued to hamper routine immunization in the country. Vaccine coverage peaked in 1990 and then quickly deteriorated due to cuts in donor funding that were not compensated by government support.*

63. *In the mid-1990s, the poor state of immunization services again received attention, so that the National Program on Immunization (NPI) was created as a parastatal agency and available funding increased. At inception, NPI identified the following challenges to the immunization program: lack of policy, weak PHC system, lack of political will at lower levels of government, lack of management structures, inadequate cold chain and logistics, weak maintenance of infrastructure, and overdependence on donor agencies. Despite all efforts, immunization coverage remained low and only 13% of children were fully immunized in 2003. Poor coordination, lack of community mobilization, inadequate health staff training, deficiencies in the*

## Summary and Conclusions

cold chain, particularly at the LGA level, and more importantly, vaccine shortages, still remain major challenges.

64. *Despite recent setbacks, the polio eradication campaign has been well-supported and has successfully expanded its coverage, but its high profile has introduced distortions.* Because of Nigeria's importance as a reservoir of the disease, the polio eradication campaign has received considerable international and domestic support in recent years. Success in expanding coverage was recently interrupted by controversy over vaccine quality in some northern states. The political obstacles have now been resolved, and mass campaigns are being implemented. However, the mass mobile campaigns are costly, both in terms of funds and in terms of diverting human resources from routine activities. All this said, the polio eradication campaign also provides a window of opportunity to improve routine immunization as it could also: improve the cold chain, logistic and the vaccine management system; increase the political commitment to immunization; and increase awareness and community participation.

65. *There is currently a renewed focus on improving immunization services, with the federal government retaining a leadership role.* The NPI is currently implementing a five-year strategic plan, including a five-year cold chain investment plan. After several years of vaccine shortages, government funding has improved and vaccine procurement has been handled by UNICEF. Cold chain and distribution, particularly at the LGA level, continue to pose problems, although these have been addressed to some extent by increases in investment and private sector involvement. GAVI is also supporting these efforts. In 2005, the NPI reported that the number of LGAs with higher than 60% coverage of DPT3, an indicator for routine immunization coverage, has increased.

## Child Health and Nutrition Services

66. Health facilities routinely provide many of the interventions that address child illness. A 2001 PHC facility survey found, however, that "general outpatient services," are available in 70-80% of facilities (Table 2). Because this is a basic service of PHC facilities, the rest of the facilities were presumably not functional. However data are limited on service composition and quality.

Table 2. Child health service availability, Nigeria, 2001 (% of facilities) (n=674)

	North Central	North East	North West	South East	South South	South West	Nigeria
<i>service is offered</i>							
general outpatient services	81	84	83	81	77	78	81
immunization	79	67	75	72	80	82	76
growth monitoring	55	44	38	41	59	71	51
school health services	28	21	15	22	19	37	23
<i>service is offered daily</i>							
general outpatient services	80	80	80	75	71	73	77
immunization	12	12	13	8	11	13	12
growth monitoring	16	7	6	6	10	16	10
school health services	8	3	5	3	4	10	5

Source is Adeniyi *et al.* (2001).

67. *Growing recognition that child malnutrition is one of the underlying causes of child morbidity and mortality led to the creation in 1990 of the National Committee on Food and Nutrition and a National Nutrition Policy in 2002.* Surveys have found that growth monitoring reaches about half the population, but is considerably less available in rural areas and the northern regions. There has been progress in particular areas such as breastfeeding promotion and micronutrient supplementation. The 2003 NDHS found that 97.2% of households now use iodized salt. Vitamin A supplementation has also achieved a boost through vaccination campaigns.

### **Population, Reproductive and Maternal Health Services**

68. *Building on groundwork in the 1980s and early 1990s, policy development on population and reproductive health has advanced in recent years.* In 2001 the FMOH took the lead with a new National Reproductive Health Policy and Strategy. The policy and strategy encompass safe motherhood, in particular antenatal and delivery care, family planning, adolescent reproductive health, prevention and treatment of sexually transmitted infections (STIs) and HIV/AIDS, and address harmful practices and reproductive rights.

69. *Family planning services are fairly available, but social, cultural, and economic factors keep utilization low.* The 1999 NDHS indicated that modern contraceptives were available within 5 km to 70-80% of households in urban areas and to over 50% of households in rural areas, even among the poorest quintiles. However, utilization remains low (8.9% of adult women in 2003), suggesting that preferences are more important than access of services. At the same time, the 2003 DHS also estimates an unmet need for contraception of about 17 % suggesting the need to address supply issues in certain areas.

70. *Antenatal care is a basic element of the PHC strategy, and the service is available in about 66% of health facilities.* However, the quality of antenatal care could be improved, particularly in rural areas. The 2003 NDHS collected data on the content of antenatal care which provide indicators for service quality. About 80% of the women who receive antenatal care reported having their weight and blood pressure measured, only around 66% had urine or blood samples taken, while just over 50% were informed of signs for pregnancy complications. Quality is considerably lower in rural areas.

71. *Qualified delivery care is available to most urban households and to about two thirds of rural households, but much less available to the poor in rural areas.* Utilization, however, seems to be somewhat less than availability, likely due to cost and, perhaps, cultural factors. The 2003 NDHS found that only 36% of deliveries are assisted by qualified personnel – 59% in urban areas and 27% in rural areas.

72. *Referral care for delivery complications – a key determinant of maternal mortality – is least available to the poor in rural areas.* The 1999 NDHS found that in urban areas, the mean reported distance to such services is 6.4 km, while in rural areas it is 16.9 km. However, for households in the poorest quintile in rural areas, the mean distance is over 26 km, compared to 12 km for households in the highest quintile.

73. *Coverage of basic emergency obstetric care (EOC) is insufficient in most regions, particularly in the North; however, coverage of comprehensive emergency obstetric care is deemed acceptable.* Basic EOC involves managed deliveries, particularly administration of drugs and assisted delivery, while comprehensive EOC includes the ability to provide caesarean-sections. A 2003 study of public and private health facilities in 12 states estimated that only Lagos meets the population target for basic EOC coverage. In contrast, all surveyed states meet



the target coverage for comprehensive emergency obstetric care of one facility per 500,000 people.

### **HIV/AIDS, Malaria and Tuberculosis**

*74. The policy and institutional framework for combating HIV/AIDS has been developed.* A National AIDS Control Program was established under the FMOH in 1986 and in 2000, political commitment by the President led to the creation of a multi-sectoral National Action Committee on HIV/AIDS (NACA). State action committees have also been established. A National Policy on HIV/AIDS was adopted in 2003, with components including prevention of disease transmission, law and ethics, care and support for those affected by the epidemic, information and communication, and institutional development.

*75. Preventive interventions have reportedly expanded but more effort is needed to reach the poor in rural areas.* In 1999 only 17% of women in urban areas and 7% in rural areas knew of condoms as a preventive measure, while in 2003, these proportions had increased to 60% and 40% respectively. Anti-retroviral treatment is available to a small number of patients, but scaling-up faces considerable challenges due to funding, drug supply problems, and capacity constraints. Likewise, prevention of mother-to-child transmission has been introduced but faces similar challenges to scaling up.

*76. A surveillance system is in place and a recent prevalence survey provides important data.* Sentinel surveillance of antenatal care clients has been established and in 2004, the government completed a national prevalence survey which provides crucial data for assessing the status of the epidemic and informing strategies and programs.

*77. With regard to malaria, Nigeria has adopted the Roll Back Malaria strategy but coverage of key preventive and curative interventions remains low.* The elements of Nigeria's strategy are: i) case management; ii) prevention; iii) information, education, and communication and community mobilization; iv) partnerships; v) operational research; and vi) monitoring and evaluation. Improving case management will depend on progress in PHC services, although Nigeria also intends to adopt a home-based treatment strategy using artemisinin combination therapy (ACT). With regard to prevention, intermittent prevent treatment (IPT) of pregnant women and insecticide-treated nets (ITNs) are the main strategies. However meeting service coverage targets will require significant efforts. For instance, the 2003 NDHS found that only 34% of febrile children receive anti-malaria treatment, 1% of pregnant women receive IPT, and only 1% of pregnant women and children sleep under an ITN. Implementation of the strategy in some states is supported by the Global Fund.

*78. In 2002, a strategic plan for tuberculosis (TB) control was adopted, focusing on expansion of coverage of directly-observed treatment (short-course) (DOTS).* The National Tuberculosis and Leprosy Control Program, established in 1991 under the FMOH, is taking the lead, with counterparts in each of the states. Since then there has been progress in increasing DOTS coverage. However, case detection remains very low at 18% in 2003, far from the global goal of 70%. This is partly due to the weakness of public sector PHC services. Nevertheless, the DOTS treatment success rate is reported to be 79%, close to the global goal of 85%. Government financial support has been limited so TB control is dependent on international donors.

## HEALTH SERVICE AVAILABILITY AND UTILIZATION BY TYPE OF PROVIDER

### Hospitals

79. *On average, Nigeria seems to have an adequate number of tertiary and secondary hospitals.* The federal government operates a number of tertiary and specialized hospitals and there is a federal hospital in most states, although the level of services available in many is characterized as more at the secondary level. There are approximately 54 tertiary and specialized hospitals, implying a population to facility ratio of around 2.1 million. General/secondary hospitals are the responsibility of state governments, and should have several physicians and at least 20 nurses. There were reported to be 855 public sector secondary facilities in the country in 2000, for a population to facility ratio of around 135,000. In addition, there are a large number of privately-operated facilities, bringing the reported total to 3,002 secondary facilities in the country.

Table 3. Health service utilization by type of provider, Nigeria, 2003 (% of children with cough or fever in the previous two weeks who received care) (n = 1,295)

	urban	rural	overall
public hospital	21	11	14
public PHC provider	10	16	15
private hospital or clinic	12	8	9
other private medical provider	1	2	2
pharmacy/patent medicine dealer	47	48	47
Other	8	14	13
Total	100	100	100

Source is 2003 NDHS.

Table 4. Health service utilization by type of provider, Nigeria, 2004 (% of children and adults ill or injured in the previous two weeks who received care) (n = 7,028)

	urban	rural	overall
<i>Hospital</i>	51	32	40
Public	37	23	29
for-profit	13	8	10
non-profit	1	1	1
<i>PHC provider</i>	28	45	38
Public	11	25	19
for-profit	16	18	17
non-profit	2	2	2
<i>pharmacy/patent medicine vendor</i>	8	10	9
<i>Other</i>	13	13	13
Total	100	100	100

Authors' estimates from 2004 NLSS data.

## Summary and Conclusions

80. *Among medical providers, utilization is divided equally between hospitals and PHC services.* The 2003 NDHS found that, of children with cough or fever who were treated, similar proportions (around 15%) went to a public hospital or a PHC provider (Table 3). Similarly, considering public and private providers together, the 2004 NLSS found that, among people of all ages who visited a health provider, 40% went to a hospital and 38% went to a PHC service (Table 4).

81. *Rural residents are less likely to use hospitals and more likely to use PHC services.* Among children with cough or fever who received treatment, 11% in rural areas went to a public sector hospital, compared to 21% in urban areas (Table 3). Among patients of all ages, the 2004 NLSS found that 32% in rural areas went to a hospital, compared to 51% in urban areas. (Table 4).

Table 5. Health service utilization by geopolitical zone and type of provider, Nigeria, 2004 (% of children and adults ill or injured in the previous two weeks who received care) (n = 7,028)

	hospital	PHC	pharmacy/ patent medicine vendor	other	total
South South	31	36	14	20	100
South East	37	35	11	16	100
South West	52	34	6	8	100
North Central	36	42	9	14	100
North East	35	47	6	12	100
North West	46	37	9	8	100
Nigeria	40	38	9	13	100

Authors' estimates from 2004 NLSS data.

82. *There are considerable regional differences in hospital service availability, but this is only partly reflected in utilization patterns.* Ratios of population per secondary facility are over 150,000 in the North West and North East zones, but under 50,000 in the North Central and southern zones. This disparity is largely due to the much greater numbers of private sector secondary facilities operating in the south, and to a lesser extent in the center of the country. Availability is somewhat reflected in utilization, as the 2004 NLSS found that, in the South West zone, which contains Lagos, over 50% of people who received care went to a hospital. However, hospital utilization is also high in the North West zone, where there are many fewer hospitals. (Table 5)

83. *The poor are less likely to use hospitals.* Figure 11 presents estimates from the 2004 NLSS showing that utilization of hospitals increases as household economic status rises, so that by the highest quintile, more people use hospitals than PHC providers.

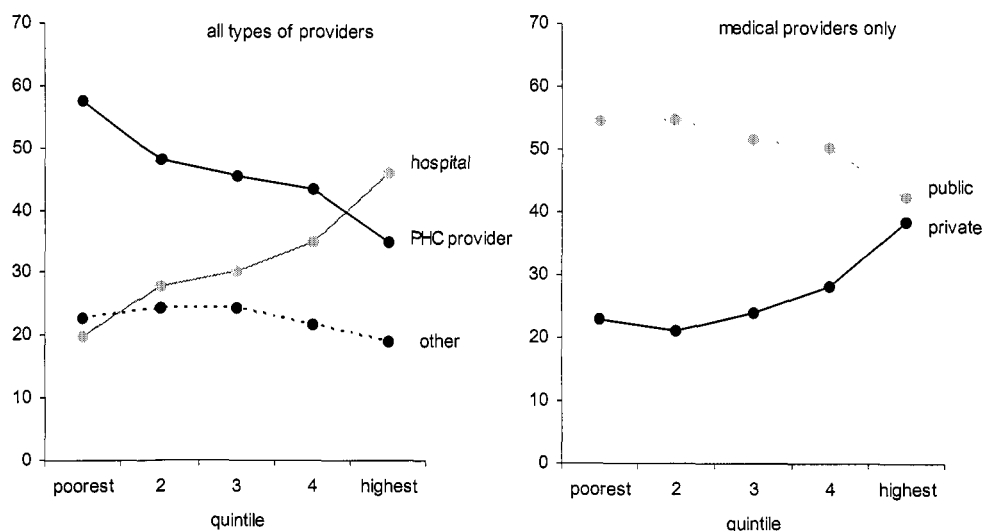
## Primary Health Care Services

84. *The ward (district) referral system is functioning in around two-thirds of districts.* An important component of the "classic" PHC strategy, adopted by a number of countries in the 1980s and early 1990s, is the integration of primary and first-referral services under a single administrative structure in catchment areas (often called districts) of around 100,000 or 200,000 people. In Nigeria, the division of responsibilities between local governments, responsible for primary health care, and state governments, responsible for secondary-level services, is a structural barrier to full implementation of the district strategy. Nevertheless, the ward system has been implemented in the country, involving collaborative arrangements between states and local governments as well as between individual secondary (first-referral) hospitals and PHC

## Summary and Conclusions

facilities. A 2001 survey of PHC services in 202 LGAs collected information on referral in 400 wards which provides indications of how well the “district” model is functioning. It found that 58% of wards had a referral facility. Two-way referral was functioning in 44% of wards, while only 11% had transport available for referral.

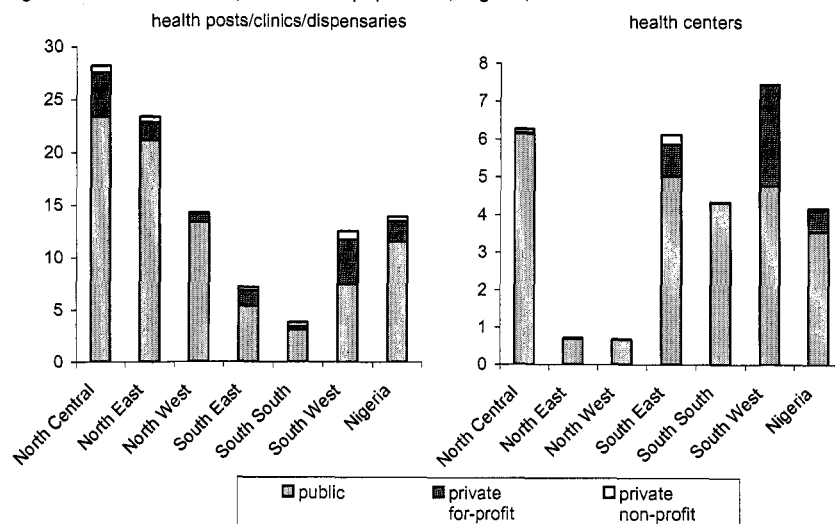
Figure 11. Health service utilization by type of provider and consumption quintile (% of ill or injured in the previous two weeks who received treatment), Nigeria, 2004



Authors' estimates from 2004 NLSS data.

85. Comprehensive primary health care centers should have a doctor and offer both PHC and a limited number of secondary clinical care services. In principle, there should be one comprehensive primary health care center per LGA, serving a population of 50,000-100,000. Within LGAs, there should be at least one primary health care center per ward, covering a population of 10,000-20,000. These facilities should be staffed by a clinical officer (medical assistant) and a nurse or midwife, and offering basic preventive and curative services. At the community or village level, health clinics or posts should be staffed by community health extension workers (CHEWs) and support birth attendants and other community health workers.

Figure 12. PHC services per 100,000 population, Nigeria, 2001



Authors' calculations from data in Adeniyi *et al.* (2001).

## Summary and Conclusions

86. *Overall, the number of PHC facilities suggests reasonable availability, but higher-level PHC services are concentrated in the south while there are more lower-level services and community health workers in the north.* According to FMOH data, in 2000 there were over 13,000 public sector PHC facilities and almost 7,000 private PHC facilities, for a total of about 20,000. The overall population to facility ratio of around 5,500 suggests reasonable availability of PHC services. Data from the 1999 NDHS indicate that 71% of households are within 5 km of a PHC facility. However, Figure 12 describes data from a 2001 facility survey which shows that the North East and North West have greater numbers of lower-level PHC facilities – health posts, clinics, and dispensaries – than the rest of the country. At the same time the southern regions have a greater concentration of higher-level PHC services – health centers.

87. *Rural residents and people in the North Central and North East regions are more likely to use PHC services.* The 2003 NDHS found that among children with cough or fever who received treatment, 45% in rural areas went to a PHC provider, compared to 28% in urban areas (Table 3). The 2004 NLSS found similar proportions among children and adults who were treated for illness in the previous two weeks (Table 4). This survey also found that residents of the North Central and North East zones were somewhat more likely to go to PHC services (around 45% of treated patients) than residents of other zones (around 35% of treated patients). (Table 5)

88. *The poor are more likely to use PHC services.* Figure 11, illustrating data from the 2004 NLSS, clearly shows that use of PHC services increases as households are poorer. In the highest quintile, 37% of people who were treated went to a PHC service, while the proportion in the lowest quintile is 58%.

### Private Medical Providers

89. *Private sector medical providers account for a significant proportion of available services and about one third of utilization of formal medical providers.* A 2001 facility survey estimated that about 66% of hospitals and comprehensive health centers, and about 15% of primary services, were operated by the private sector. The 2003 NDHS found that among children with cough or fever who received treatment, 11% went to a private medical provider, compared to 29% who went to a public sector hospital or PHC provider (Table 3). The 2004 NLSS found that among ill children and adults who received treatment in the last two weeks, 27% went to a private for-profit medical provider, and 3% went to a private non-profit provider, compared to 48% who went to a public sector facility. In general terms, both surveys found that (excluding consideration of pharmacies/patent medicine dealers and other non-formal providers) private providers are consulted one-third of the time and public medical services are consulted about two-thirds of the time.

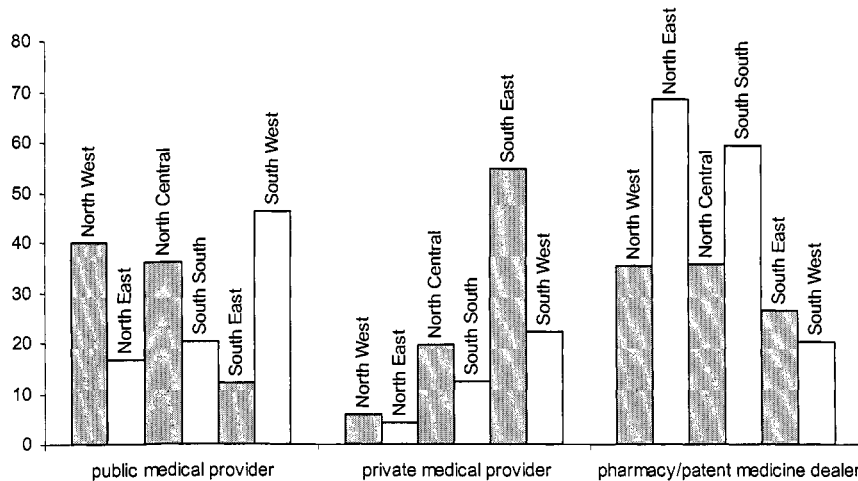
90. *Urban residents are slightly more likely to use private sector medical services.* The 2003 NDHS found that in urban areas, 13% of children with cough or fever who received treatment went to a private medical provider, compared to 10% in rural areas (Table 3). Similarly, the 2004 NLSS found that the proportion of people who received treatment who used a private sector medical service was 32% urban areas and 29% in rural areas (Table 4).

91. *Higher-level private medical services are more available in the south, and this is reflected in utilization patterns.* Overall in Nigeria, private providers account for 72% of secondary facilities. They account for 5% in the North East and 24% in the North West, compared to over 90% in the South East and over 80% in the South South and South West. Similarly, private comprehensive health centers account for a significant proportion of the total in the South West zone, but are almost absent in the northern regions (Figure 12). With regard to both hospitals and PHC facilities, utilization of private sector services is higher in the south than in the north. The 2003 NDHS, for example, found that for the treatment of cough or fever among children, utilization of

## Summary and Conclusions

private medical providers was higher than public providers in the South East and South West while the reverse was the case in the north (Figure 13). The 2004 NLSS found similar patterns: in the South East, 50% of children and adults who were treated for illness in the previous two weeks went to a private medical provider, compared to 22% who went to a public service, while in the North West, the proportions were 5% and 68% respectively.

Figure 13. Regional patterns of utilization by type of provider, Nigeria, 2003 (% of children with cough or fever who were treated)



Source is 2003 NDHS.

92. *Private non-profit medical providers mostly provide higher level services, are most available in the South East region, and overall account for a small proportion of service utilization.* A 2001 facility survey found that 5% of comprehensive health centers and secondary hospitals were operated by non-profit organizations, which are often religious groups. They are most available in the South East, accounting for 11% of such services. Overall, the non-profit sector represents a small proportion of total utilization: the 2004 NLSS found that only 3% of people who received treatment in the previous two weeks went to a private non-profit provider (Table 4).

93. *The better-off are more likely to use private sector medical services, but every income group uses public services more than private ones.* Consistent with urban/rural and regional patterns of poverty and health service utilization, people in the higher quintiles are more likely to use private sector medical services. Figure 11 provides data on treatment of ill children and adults; it shows that utilization of private medical providers rises with income. In the poorest quintile, among ill people who were treated, 23% went to a private medical provider and this increased to 38% in the highest quintile. Although use of public sector medical services decreases with economic status, it still exceed utilization of private services (excluding non-formal providers) in every quintile.

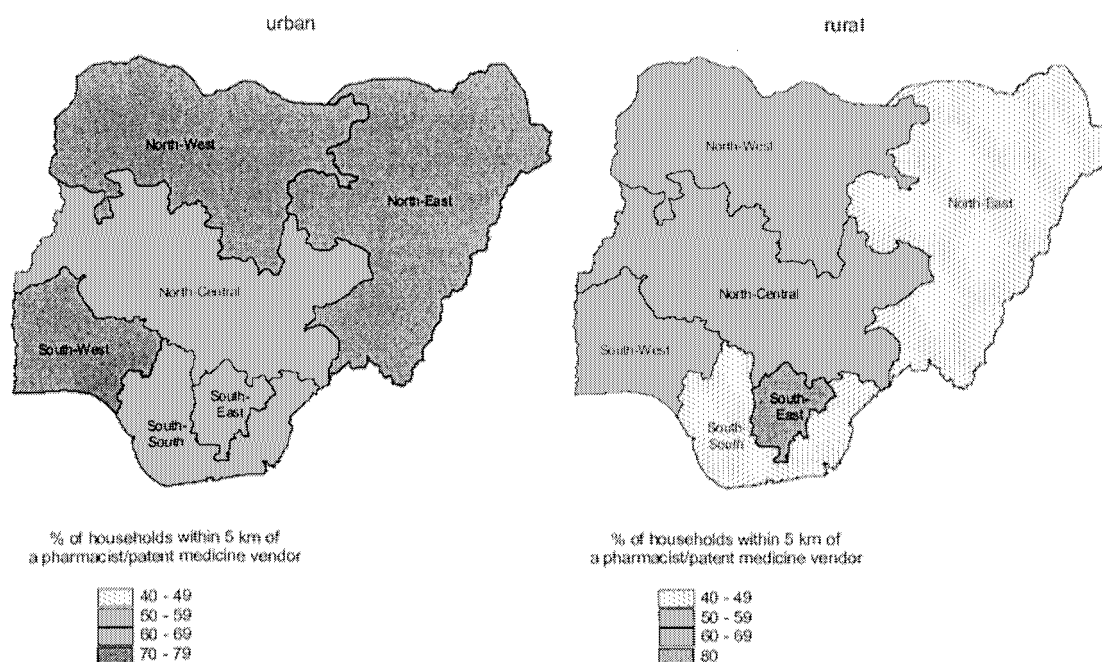
### Patent medicine vendors

94. *Patent medicine vendors, a legally-recognized category of drug seller, are far more numerous than registered pharmacies and are significant providers of "informal" care. They are widely available, particularly in the south, and in urban areas in all parts of the country.* As with other private sector health services, registered pharmacies are concentrated in the south. In the South West zone, for example, there is one pharmacy for every 50,000 people, but in the North East, there is one for every 280,000 people. Patent medicine vendors are also more available in the south, but the regional disparities are not as great. The 1999 NDHS found that overall, 60% of households live within 5 km of a patent medicine vendor. These providers are most available

## Summary and Conclusions

in the South East, where 75% of households live within 5 km, and least available in the North East and South South, where the proportions are around 50%. However, Figure 14 indicates that patent medicine vendors are mostly available in urban areas – in all parts of the country, including the north.

Figure 14. Availability of pharmacists/patent medicine vendors, Nigeria, 1999 (%households living within 5 km)



95. *A high proportion of childhood illnesses are treated by patent medicine dealers, but this is not the case for general illness among all ages.* The 2003 NDHS found that among children with diarrhea who received care, 37% obtained treatment from a patent medicine vendor, compared to 46% who went to a public or private hospital or PHC provider.<sup>8</sup> Similarly, among children with cough or fever who received treatment, 47% went to a patent medicine dealer and 40% went to a public or private medical provider. (Table 3). However, the 2004 NLSS found that, among ill children and adults who received treatment, only 9% went to a patent medicine vendor. (Table 4) The reason for the difference between the findings of the two surveys is unknown, but it could be that illnesses of young children are perceived as less serious and more routine and so they are taken to likely cheaper patent medicine vendors.

96. *There are no urban-rural differences in utilization of patent medicine vendors and regional patterns are unclear.* Utilization of patent medicine vendors for treatment of child illness is similar in urban and rural areas (Table 3). Although Figure 13 indicates that utilization of patent medicine dealers to treat children with cough or fever is higher in the northern regions and the South South than it is in the South West and South East, this is not evident with regard to illness among older children and adults, for whom utilization is higher in southern zones (Table 5).

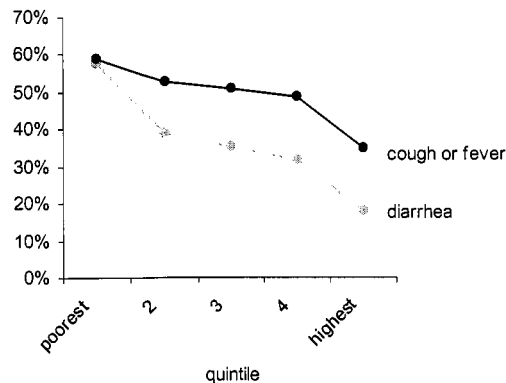
97. *The poor are more likely to seek treatment from patent medicine vendors.* The 2003 NDHS found that, of children with diarrhea who were treated, 57% in the poorest quintile went to a pharmacy or patent medicine dealer, compared to 18% in the highest quintile; similarly, of

<sup>8</sup> Survey questions do not distinguish between pharmacies and patent medicine vendors, but because they far outnumber registered pharmacies, it is safe to assume that utilization estimates refer to patent medicine vendors.

## Summary and Conclusions

children with cough or fever who were treated, 59% in the poorest quintile went to a pharmacy or patent medicine dealer, compared to 35% among the most well-off (Figure 15).

Figure 15. Utilization of pharmacy/patent medicine dealer for treatment of child illness, Nigeria, 2004 (% of children with illness in previous two weeks who received treatment)



Authors' estimates from 2003 NDHS data.

### Traditional healers

98. *Survey data indicate that some people go to traditional healers for treatment.* The 2003 NDHS found that only around 3.5% of ill children who were treated were taken to a spiritual or traditional healer. Similarly, the 2004 NLSS found that less than 1% of ill children and adults who were treated went to a spiritualist, traditional birth attendant or traditional healer. There was little difference observed between urban and rural areas. Both surveys found that a further 10% of utilization was accounted for by treatment by family members or other unspecified caregivers.

## ROLE OF THE PRIVATE SECTOR

99. *The private health care sector is a major component of the health care delivery system in Nigeria.* As noted above, the private sector operates about 66% of higher level medical services and around 15% of PHC services. Similarly, about 33% of utilization of formal medical services are accounted for by the private sector. There is significant use of non-formal private services, particularly patent medicine vendors – with surveys finding utilization to be 50% (of those treated) in cases of child illness and around 10% for general illness among older children and adults. Private health care providers are heterogeneous, ranging from patent medicine vendors, dental and medical clinics, to tertiary hospitals. Most of these are registered by the government, but there are also unregistered clinics, drug shops and numerous drug hawkers.

100. *Although the majority of private sector health facilities are for-profit; many are not-for-profit, mostly faith-based.* For example, the Christian Health Association in Nigeria has about 400 registered member institutions; these institutions provide services through about 3,500 health facilities which are mostly concentrated in the South of the country. Data discussed above indicate that non-profit services account for about 5% of total comprehensive health centers and secondary hospitals, and for about 3% of total utilization. There are also a few employer-based providers. The private for-profit facilities tend to be small practices and tend to focus on the provision of curative services; in contrast the mission sector operates larger facilities that offer both preventive and curative interventions.

101. *The pharmaceutical retail sector is composed of registered pharmacies, patent medicine vendors and through illegal drug hawkers.* In 2003, there were 2,751 registered pharmacies, but



## Summary and Conclusions

there were an estimated 36,000 or more patent medicine vendors in the country. In addition, there are an unknown number of informal drug sellers. None of these retailers are allowed to prescribe drugs but in practice many do. This combined with little knowledge and training, especially among patent medicine vendors and drug hawkers, has resulted in irrational prescription of drugs.

102. *The health authorities have recognized the importance of the private sector and are promoting public-private partnerships in health.* However, many challenges remain. First, although the regulatory system is in place, enforcement is weak due to funding problems. Second, coordination between the public and private sector is weak reflected in the absence of an efficient and thought through referral system between the sectors. Third, the system for monitoring the activities of the private sector is not functioning; very few private practitioners report their activities to the public sector.

## HEALTH CARE FINANCING AND REQUIREMENTS

103. *Estimating total health expenditure in Nigeria presents considerable challenges.* The division of responsibilities for health across the different levels of government makes it difficult to compile data on expenditure as the states and LGAs are not required to report budgets and expenditures to the federal level. Additionally, available data sources often contradict each other. The following analysis is based on the limited available data.

### Public Sector Health Spending

104. *Federal government health spending has increased significantly in recent years.* In 2003, the federal government accounted for 49% total government spending, states accounted for 37%, and local governments accounted for 14%. In line with growth in GDP and total government spending, federal government health expenditures have increased in real terms, by about 100% during the period 1998-2003 (Table 6).<sup>9</sup> The 2004 budget allocation for health increased as a proportion of the total budget to 6.9%, but was slightly lower monetary terms than reported expenditures in 2003. The 2004 health budget was Naira 35,300 million, equivalent to US\$ 265 million or US\$ 2.10 per capita.<sup>10</sup>

Table 6. Federal government health expenditures, Nigeria, 1998-2003 (in current and constant 2003 prices)

	1998	1999	2000	2001	2002	2003
Naira million at current prices	11,984	16,180	18,182	44,652	63,171	39,686
US\$ million at parallel exchange rate	141	176	150	333	454	288
Annual growth in federal health expenditures in current \$US		25	(15)	122	36	(37)
Growth in federal health expenditures in current \$US 1998-2003 (%)						104
% federal government health expenditures/ total federal expenditures	3.3	4.5	2.7	2.8	3.7	3.2
Federal health expenditures at constant 2003 prices (naira million)	19,718	24,969	26,236	54,255	67,999	39,686
Real annual growth rate in federal health expenditures (%)		27	5	107	25	(42)
Real growth in federal health expenditures 1998-2003 (%)						101

Authors' calculations from Central Bank of Nigeria (CBN) reported data.

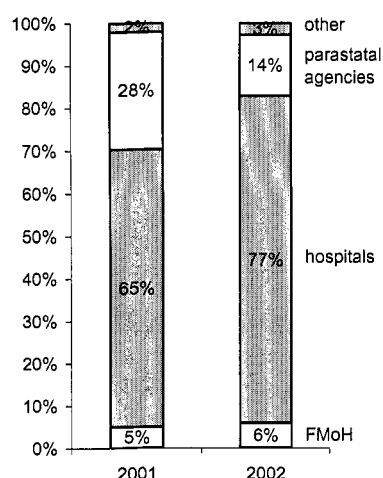
<sup>9</sup> The three sources of data on federal health spending available to the authors provide similar estimates except for the year 2002, for which two of the sources report a total of around US\$250 million and the third, the CBN figures reported in Table 6, reports US\$ 454 million.

<sup>10</sup> Data on actual expenditures in 2004 are not available to the authors.

## Summary and Conclusions

105. *Most federal health spending goes to teaching and specialized hospitals and federal medical centers – and most goes to salaries.* Data on the allocation of funds released for health by the federal government in 2001 and 2002 are presented in Figure 16. In 2002, 77% of federal health expenditures went to federal hospitals – 58% to teaching and specialized hospitals and 19% to the federal medical centers in state capitals. This is somewhat of an increase from 2001, when the proportion was 65%, with most of the difference coming from federal parastatal agencies (such as the National Primary Health Care Development Agency and the National Immunization Programme), whose proportion dropped from 28% in 2001 to 14% in 2002. In 2001 and 2002, between 66% and 75% of federal health expenditures were devoted to personnel costs, while around 5% covered other recurrent costs (suggesting that most drug costs are borne by patients). About a quarter of the total was on capital expenditures.

Figure 16. Federal government health expenditures, Nigeria, 2001-2002



Authors' estimates from data from Office of the Accountant General.

106. *Comprehensive data on state government health spending are not available but it is estimated to be of a similar order of magnitude as federal health spending and on average lower in the north than in other parts of the country.* As noted above, total state government spending accounted for 37% of total government spending in 2003. Estimates of state government spending on health are based on data from samples of states and in 2002 range from a lower bound of about US\$ 150 million to an upper bound of about US\$ 330 million, a similar order of magnitude to average annual federal health spending in recent years. Data from 13 states indicate that spending across state governments seem to be lowest in the northern regions and highest in the North Central and South South zones. Like federal spending, state health spending is likely concentrated on the main area of state responsibility, secondary hospitals, and is also likely mostly on personnel, although data on this are not available.

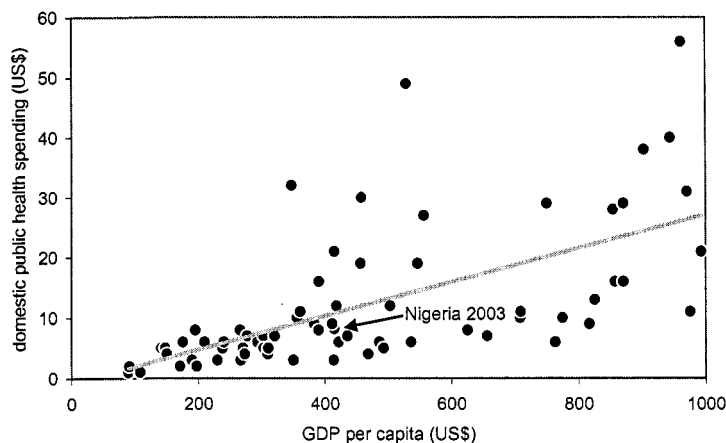
107. *There are no comprehensive data on health spending by the 774 local government areas (LGAs), responsible for primary health care services, but it is likely less than either federal or state health spending.* Total local government spending accounted for 14% of total government spending in Nigeria in 2003. Data on the sectoral allocation of local government expenditures are not available, and estimates of local government health spending are based on available information from small samples. An estimated range for LGA health spending in 2002 is from US\$ 35 to 145 million, likely less than either federal or state health spending. There is evidence that like other levels of government, most health spending by local governments is on personnel. A 2002 study of 30 LGAs in Lagos and Kogi states found that in Lagos, 65% of local government health spending was on personnel, while the proportion in Kogi was 78%. (Khemani, 2004).

## Summary and Conclusions

108. *There is a general impression that in previous years LGAs did not receive sufficient funding to meet their responsibilities, but their overall revenue situation has improved recently with increased Federation Account transfers.* In 1998, reported local government expenditures were US\$ 520 million but by 2003 this had increased to US\$ 2,510 million. This large increase in overall available resources would suggest a corresponding improvement in local government financing of primary health care services. Nevertheless there continues to be concerns raised regarding governance and the commitment of LGAs to basic services. For example, a study of LGAs in Lagos and Kogi states found that non-payment of salaries was not correlated with the level of available resources, suggesting diversion of funds. (Khemani, 2004)

109. *International support for the health sector is growing and can potentially have substantial impact on specific health issues.* At an estimated US\$ 1 per capita annually in 2002, international donor assistance to the sector is equivalent to at least one third of total federal government health spending, and to similar proportions or more of state or local health spending. Donor-supported programs are therefore relatively large in relation to any one level of government, particularly considering growing commitments in recent years, and can be influential because they are focused for the most part on specific health issues (such as HIV/AIDS, malaria, family planning or immunization).

Figure 17. Per capita domestic public sector health spending and GDP per capita, 2002 (countries with GDP per capita less than US\$ 1,000)



Authors' calculations from WHO 2005 and World Development Indicators 2005.

110. *Plausible estimates for government health spending are somewhat at odds with the prevailing impression of very low public funding for health services but consistent with Nigeria's economic growth and per capita GDP.* Based on available data, a plausible estimate of total annual domestic government health spending is around US\$ 8 per capita. This level may be counter to prevailing impressions of low public spending on health, but Figure 17 indicates that it is consistent with Nigeria's GDP per capita.

### Private Sector and Household Health Spending

111. *Health spending by private for-profit and non-profit organizations is not negligible.* Given the importance of private non-profit providers in some parts of the country, particularly hospitals run by religious organizations, spending on health by non-profit organizations is likely not negligible. Moreover some large for-profit firms and government parastatal companies, particularly in Lagos and other large cities, directly provide or finance health services for employees and their families.

## Summary and Conclusions

112. *Private health insurance has been limited, but is reported to be growing, while there have been some experiments with community health insurance and a public health insurance program is being initiated for government employees.* In 2001, it was reported that only four private health insurance companies were operating in the country (Alubo, 2001). However, private insurance has apparently been growing in the past few years in a more stable economic and political climate. A number of experiments in community-based health insurance have been implemented in Nigeria, including savings schemes through existing community-based organizations such as women's associations, faith-based organizations, and craft and trade groups. The National Health Insurance Scheme (NHIS) intends to establish health insurance partly financed by public sector employee contributions.

113. *Recent household survey data indicate that out-of-pocket spending on health services in Nigeria exceeds US\$ 20 per capita, representing around 9% of total household expenditures.* The 2004 Nigeria Living Standards Survey (NLSS) collected data on household health expenditures from a representative sample of 19,159 households. The estimate from these data of average per capita out-of-pocket spending on health is around US\$ 22.50. The survey data indicate that this out-of-pocket spending on health services accounts for 8.7% of total household expenditures. This health spending includes expenditure on outpatient care, transportation to health care facilities, and medications.<sup>11</sup>

114. *This is one of the largest shares of health expenditure out of total household expenditure in developing countries for which data are available.* For instance, in countries such as Vietnam, Brazil, and Albania, household health expenditure represents 7% or less of total household expenditure. In Ethiopia, expenditure on health represents only about 1% of total expenditure. In Nigeria, the large burden of out-of-pocket health expenditure is due to high utilization of private providers, cost recovery by public facilities with no clear exemptions and waivers, and limited availability of health insurance mechanisms.

115. *The better-off households, on average, spend a larger share of their total expenditure on health care than the poorest households. Consistent with this is that health spending as a proportion of total household spending is highest in the South East and lowest in the North West.* It is not surprising that the better-off spend more on health; as discussed previously, the better-off have higher utilization rates than the poorest and they are also more likely to use private providers. On average, a household belonging to the poorest fifth of the population spends about US\$ 4 per capita annually on health care; in contrast, a household among the richest fifth spends about US\$ 70 per capita annually. Households in the South East spend the most on health (about 11%) relative to total expenditure; while households in the North West spend the least (about 7%).

116. *Expenditure on drugs represents the largest share of household health spending and is a greater burden for the poorest.* Around 70% of total health spending is on medications, a proportion which is significantly higher for the poorest quintile (around 80%) than for the highest quintile (around 60%).

117. *Many patients, including the poorest, pay for high-impact child and maternal health interventions.* The 2004 NLSS found that 34% of parents paid for their child's most recent vaccination, 55% of mothers paid for post-natal care, and 81% paid for antenatal care – all services which are supposed to be officially free of charge due to their public health impact. Moreover there are no significant differences across household expenditure quintiles, indicating that exemption mechanisms are not successfully distinguishing the poor from the non-poor.

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<sup>11</sup> The estimates are preliminary and exclude data on household expenditures for hospitalization.

## Summary and Conclusions

118. *Many households could fall into poverty or further into it as a consequence of catastrophic health expenditures.* The survey found that as many as 12% of households spend about a fourth of their total resources on health care and as many as 4% of households spend half of their resources on health care— a proportion indicating catastrophic health expenditure.

### Total Health Spending

119. *In terms of total health spending and sources of funds, it is likely that Nigeria spends more than is commonly thought.* From the available data, an estimated lower bound for total annual health spending circa 2002-03 is around US\$ 29.50 per capita and an upper bound is around US\$ 33.00 per capita. Table 7 presents the authors' estimates from various sources of data. This level of health spending represents between 6.5 and 7.4% of GDP. Compared to other countries, this level of spending is somewhat higher than would be expected given Nigeria's GDP per capita. It seems that with recent economic growth and greater political stability, health spending in Nigeria is higher than generally perceived.

Table 7. Estimates for total health expenditure in Nigeria, circa 2003-2004

	Naira (million)	US\$ (million)	US\$ per capita
Federal	39,686	288	2.34 <sup>1</sup>
State	58,033	421	3.42 <sup>2</sup>
Local	41,568	301	2.45 <sup>3</sup>
total domestic	139,287	1,009	8.22
international donors	20,850	150	1.22 <sup>4</sup>
<b>total public</b>	<b>160,137</b>	<b>1,159</b>	<b>9.44</b>
private organizations	3,982	30	0.24 <sup>5</sup>
private insurance	13,836	104	0.83 <sup>5</sup>
private out-of-pocket	377,046	2,835	22.55 <sup>6</sup>
<b>total private sector</b>	<b>394,864</b>	<b>2,969</b>	<b>23.61</b>
<b>Total</b>	<b>555,001</b>	<b>4,128</b>	<b>33.06</b>

<sup>1</sup> CBN

<sup>2</sup> 6.3% (from 2002 budget data from 13 states) of CBN reported total state expenditures in 2003.

<sup>3</sup> 12% (from 1999-2000 data on LGA budgets in Lagos and Kogi states) of CBN reported total LGA expenditures in 2003

<sup>4</sup> assumed increase from Soyibo *et al.* (2004) estimate of US\$ 125 million in 2002.

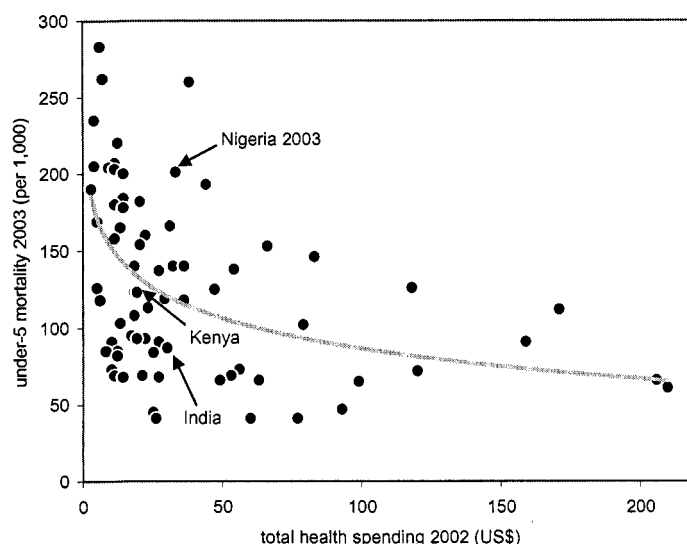
<sup>5</sup> University of Ibadan NHA estimate for 2002 (Soyibo *et al.*, 2004).

<sup>6</sup> Authors' estimate from 2004 NLSS data.

120. *However, Nigeria's health outcomes are not commensurate with its health expenditure.* Figure 18 provides a rough illustration of what Nigeria is buying with its comparatively high level of total health spending. Although under-five mortality has declined since the 1990s, the 2003 NDHS estimate of 201 per 1,000 is much higher than would be expected given Nigeria's level of health spending. Possible reasons for this? Available data indicate that most health spending does not go to primary health care and preventive services which provide the most cost-effective means of improving population health status. Around two-thirds of public spending (i.e. most federal and state government spending) is allocated to hospitals. Similarly, because the better-off spend more and because they tend to go to higher-level hospitals and private providers, it is likely that most private spending is not allocated to PHC and preventive services.

## Summary and Conclusions

Figure 18. Total health spending and under-5 mortality, 2002-03 (countries with under-5 mortality over 40 per 1,000)



### Requirements to Achieve the MDGs

121. *Using the Marginal Budgeting for Bottlenecks tool (MBB), simulations were made on the extra resources needed to achieve the health-related MDGs in Nigeria.* These simulations estimated the cost of the inputs required to increase the coverage of effective interventions that improve maternal and child health as well as some interventions to prevent and treat malaria, TB and HIV/AIDS.

Table 8. Estimated cost and impact of MBB policy scenarios

Scenario	reduction in under-5 mortality	reduction in maternal mortality	extra cost (US\$ per capita per year)	total extra cost (US\$ per capita per year)
1. Improving immunization management and governance	7%	0%	0.19	0.19
2. Strengthening population based outreach services	14%	2%	1.36	1.55
3. Addressing community-based interventions	54%	7%	2.83	4.38
4. Providing basic clinical services	66%	30%	2.26	6.64
5. Providing comprehensive referral care (CEOC)	68%	53%	3.52	10.16
6. Treatment of HIV/AIDS and management of resistant and complicated TB and HIV/AIDS	68%	53%	5.72	15.88

Authors' estimates.

122. *These simulations estimated that on average an extra US\$ 16 per person per year are needed to achieve significant progress in reaching the health-related MDGs in Nigeria.* This is the cost of implementing five possible sets of policies and interventions to gradually eliminate bottlenecks in the health sector and thus accelerate progress to meet the goals. These estimates do not include the cost of interventions outside the health sector that are also needed to achieve the health MDGs (e.g. education, poverty reduction, and others).

## Summary and Conclusions

123. *Basic preventive, community-based and clinical interventions can have a significant impact on child and maternal mortality for an extra US\$ 10 per capita annually, while another US\$6 per capita will improve treatment for HIV/AIDS and TB.* Table 8 shows the impact and cost estimates associated with different packages of policies and interventions. The first scenario improves immunization management and governance, with an estimated marginal cost of US\$ 0.19. When interventions that strengthen the capacity for population-based outreach services are added to the first scenario, the total cost increases to US\$1.55. The third scenario increases the coverage of community based interventions such as the promotion of exclusive breastfeeding and ITN usage, increasing the total marginal cost to US\$4.38 per person per year. The first three scenarios are mostly aimed at improving child survival. The fourth scenario provides basic clinical services and the fifth provides comprehensive referral care. Along with the first three policy packages, the fourth and fifth scenarios could significantly reduce child and maternal mortality at a total extra cost of around US\$ 10 per capita per year. The last scenario focuses on treatment of HIV/AIDS and the management of resistant and complicated TB. Adding this last scenario to the previous ones increases the extra resources needed to US\$ 16 per person per year.

## HEALTH POLICY

### Background

124. *The public sector health system expanded dramatically in the 1970s and 80s, applying the PHC “district” model.* At independence in 1960, health services in Nigeria were largely focused on curative care and centered in urban areas. In the 1960s and 70s, government considerably expanded the health care system. During the early 1980s, the Basic Health Services Scheme (BHSS), in line with the 1978 Alma Ata Declaration, envisioned organizing PHC services based on a “district” model, by which one comprehensive health center, four health centers, and 20 clinics would serve a catchment population of 150,000.

125. *The 1988 National Health Policy further emphasized primary health care, and put in place the structures and division of responsibilities which characterize the system today.* The policy and subsequent directives defined the responsibilities of the federal, state, and local levels of governments, and created the various state and federal programs and parastatal agencies focused on specific aspects of the sector.

126. *Progress was achieved in the creation of the new institutional structures, particularly relating to the decentralization of responsibility for PHC to the LGAs.* In the 1980s and early 1990s, the strategy to improve primary health care involved training PHC workers, infrastructure investment, and setting up a district and village governance structure. Resources and technical assistance were to be provided to the LGAs by states and the federal government, which established the National Primary Health Care Development Agency (NPHCDA) in 1992 for this purpose. As noted in previous sections, following this effort, district and village committees are in place and drug revolving funds are operating in many areas. Similarly, investment in infrastructure, equipment, and training was considerable (World Bank, 1991).

127. *However, institutional changes and investments were to a large extent not followed-up with sustained support, as the three levels of government, as well as external donors, reduced funding for health services during the military dictatorship of the 1990s.* Political interference, increased corruption, and general deterioration of public sector governance also severely affected the health system. Development of the system became characterized by one-off investments, in infrastructure or drugs, determined by political criteria, and with little or no provision for sustainability. In general, institutions, such as the various coordination committees at different

levels, became non-functional, service availability and quality was reduced, and utilization declined.

### **Current Health Sector Strategy**

128. *The government democratically-elected in 1999 started the difficult process of reversing the deterioration of the health system, including policy development and increasing spending on health.* Its 2004 Poverty Reduction Strategy Paper (PRSP), called the National Economic Empowerment and Development Strategy (NEEDS), includes a “Social Charter,” focusing on human development, including a significant component on the health sector. The overall goal is to improve the health status of Nigerians through strengthening primary health care services and undertaking health sector reforms. Within the framework of the NEEDS, the health sector policies and programs adopted or planned by the government can be grouped into four main strategic thrusts.

- i) *The federal government’s draft Health Act, currently before the National Assembly, could strengthen direct federal support to PHC services, essentially reviving the strategy of the early 1990s.* If effectively implemented, the Act would strengthen the role of a federal parastatal agency, the National Primary Health Care Development Agency (NPHCDA), particularly by establishing a designated source of funding. This fund would be constituted from earmarked taxes on alcohol and tobacco, and more importantly from contributions from the federal, state and local governments.
- ii) *A number of disease-specific or “vertical” programs are being strengthened, particularly through the support of the federal government and international partners, which should improve coverage of high-impact interventions.* HIV/AIDS, malaria, and TB programs, for example, are centrally-based, often with state-level counterparts, and receive support from the federal government and international partners. In addition, the federal government plans to support an MDG program in a number of states addressing, in particular, child and maternal mortality. Under the draft Health Act, responsibility for immunization is expressly retained by the federal government.
- iii) *The role of state governments in supporting LGAs and PHC services may be strengthened.* The draft Health Act contains language which strengthens the role of state governments in PHC services, while the National PHC Fund created by the draft Act will necessarily strengthen the state role insofar as state financial contributions are accompanied by a role in program development, management and governance. At the same time, a number of states have developed poverty reduction strategies (SEEDS) which affirm a commitment to improve basic health services and combat HIV/AIDS in particular.
- iv) *The federal government is establishing a national health insurance scheme.* The federal government intends to establish national health insurance, starting with public employees and with the intention of expanding in subsequent years to private formal sector employees. This represents a technical challenge, but accountability and trust issues are paramount as employees are asked to turn over a part of their salaries to the pool. The scheme holds the potential of improving the use of the large private household expenditures on health as well as reducing financial risks to individual households. In its first stage, the scheme will largely benefit the already better-off who have formal employment. In subsequent phases, support to community-based insurance schemes is envisioned for the benefit of non-formal sector and agricultural workers. The scheme plans to include a subsidy program that aims at protecting



some vulnerable groups such as inmates, permanently disabled people, pregnant women, children under five, and pensioners.

## MAIN CHALLENGES AND POLICY OPTIONS

129. A number of important challenges and potential policy implications emerge from the analysis in this report. In discussing these it is useful to distinguish the “what” from the “how.” That is, the “what” takes into account the country’s health problems and the technical interventions required to address them. The “how” considers the institutional mechanisms and means, particularly financial, that could be applied to delivering the necessary technical interventions.

### Health Situation and Need for High-Impact Interventions

130. *The overall health situation in Nigeria, as measured by child and maternal mortality and nutrition for example, is poor in both absolute terms and in relation to other countries of similar economic level.* Despite some improvements in recent years, child mortality and malnutrition are as high as in the poorest countries in the world. Because of Nigeria’s size, poor health indicators translate into human suffering on a massive scale. Every year, around 1 million under-five children die and 40,000 women die in childbirth in the country. Over 8 million under-five children are chronically malnourished and 4.5 million adult women are malnourished. At least 3.5 million people are estimated to be infected with HIV, and over 700,000 have TB, while malaria continues unchecked as the number one cause of child mortality and a major cause of adult illness and mortality.

131. *Utilization of basic health services is similarly very low, worse than in many other countries of similar economic level.* For example, coverage of routine immunization, one of the cheapest and easiest basic health interventions, is particularly problematic, as only 13% of one-year-old children are fully immunized. Similarly, coverage of skilled delivery care, important for the prevention of maternal mortality, is low, at around 36%.

132. *Public and private spending on health care in Nigeria is higher than previously thought and very inefficient in terms of health outcomes.* Government health spending has increased in recent years along with overall growth in GDP and total government expenditures. At the same time, a recent household survey found that private out-of-pocket health spending is very large. Total health spending, estimated to be in the order of US\$ 33 per capita annually, is higher than in other countries of similar income per capita, but seems to purchase worse results. For example, under-five mortality in Nigeria is significantly higher than would be expected given this level of health spending.

133. *Effective interventions to improve health outcomes are well-understood and wide coverage could be achieved at reasonable cost.* Considerable effort has been devoted internationally to specifying and costing the most effective preventive and curative health interventions which address the largest proportion of the burden of disease in developing countries, particularly in Sub-Saharan Africa. High-impact interventions to reduce child and maternal mortality are summarized in **Error! Reference source not found.** in Chapter 6. Examples of high-impact preventive interventions include routine immunization, micro-nutrient supplementation and antenatal care. Examples of high-impact curative interventions include oral rehydration therapy (ORT), malaria and pneumonia treatment, and emergency obstetric care (EOC). Simulations, described in Chapter 6, and summarized in Table 8 above, indicate that extra annual spending of US\$10 per capita is all that would be needed to significantly reduce child and maternal mortality (while another US\$6 would provide effective HIV/AIDS and TB

## *Summary and Conclusions*

treatment). It is likely that this extra amount or part of it can be obtained from minimizing efficiencies in the health sector.

134. Improved allocation and efficiency of current health spending, as well as increased public expenditure in a context of economic growth and increasing oil revenues, are certainly feasible. We know the “what:” the health problems are well-defined, the required health interventions are well-known and their cost has been estimated. The challenge is to work on the “how” financing, implementation and delivery mechanisms and strategies.

### **Federalism and the Health Sector**

135. *The public sector health system operates within a federal structure where responsibilities and funding flows are divided between the three levels of government.* The level of government with the least capacity and resources – the LGAs – are responsible for primary health care (PHC) services – the level of care which can have the greatest effect on the health problems with the largest burden on the population. The federal and state governments, with more capacity and resources, are responsible for hospital services. The basic institutional challenge for the system is how to coordinate the three levels of government, not just to improve referral of patients between primary and secondary services, but to increase support to LGAs and PHC services from higher levels of government.

136. *Centrally-financed “vertical” programs are one option to channel greater federal resources into PHC services, but experience in Nigeria has been decidedly mixed. The government should consider greater decentralization of day-to-day management while strengthening the federal role in technical assistance and capacity building of lower levels of government.* Consistent and extremely low coverage of routine immunization underlines the problems with under-resourced, centrally-financed and managed programs targeting specific diseases. Other programs, targeting HIV/AIDS, malaria and TB in particular, have only recently seen substantial resources, so it may be too soon to assess their effectiveness. The government is also considering a “MDG Program” to address selected health issues in targeted states. These initiatives have state-level programs and offices, but the extent of decentralization of management and control is unclear.

137. On the one hand, it is clear that federal resources are necessary and welcome in order to support high-impact interventions addressing particular diseases and conditions. On the other hand, a strong role for state and local governments is needed to achieve horizontal integration with PHC services, manage day-to-day implementation, and appropriately address local contexts. At the same time, there is wide variation in the capacities of state and local governments, with those with the greatest needs possessing the lowest capacity (such as in rural areas, in the northern regions, and the South South). An option for the federal government to consider is to continue to provide financing – ideally, at increasing levels – but to withdraw from implementation and day-to-day management, providing technical assistance and capacity building to state and local governments that require it. Such a strategy would also require significantly improved coordination across the federal, state, and local levels.

138. *Another option for getting federal resources into PHC services is to revive the federal development program, improving coordination and local responsiveness.* As noted above, the draft Health Act would revive the National PHC Development Agency (NPHCDA). Experience with this federal development program in the 1980s and 1990s is mixed. On the one hand, as described in this report, progress was made in establishing local and community-level PHC governance structures, training PHC and community health workers, and generally establishing the basic structure of the PHC delivery system. On the other hand, as is often the case with such development programs, there was too much focus on investment in infrastructure and equipment

## *Summary and Conclusions*

and not enough on systems to ensure their maintenance and continued functioning. At the same time, it is evident that there was often insufficient input from local governments and communities, so that for example, health centers were built that may not have been needed or wanted or in places where they are not used. Moreover private health services were insufficiently taken into account and involved. Like with central disease-specific programs, while federal financing for development of PHC services is certainly necessary and welcome, the federal government should take in account the lessons of the past and consider focusing on financing and technical assistance while decentralizing implementation and management to the state and local levels.

139. *The role of the states in supporting high-impact interventions and PHC services needs to be strengthened.* In general, a number of states have committed to improving health outcomes in their poverty reduction strategies (SEEDS) and this can only be done by improving public and private PHC services, the responsibility of local governments. Improving state government coordination with and support to local governments is necessary both due to the weakness of local governments and also because it is required in order to establish an effective PHC system. That is, the classic “district” health system model of a secondary hospital anchoring a network of PHC services in a defined catchment area requires close state and local government coordination due to the division of responsibilities for secondary and primary services. Enugu state, for example, is working on reviving this model.

140. *There is an overall need to work on defining federalism in the health sector.* Disease-specific programs, and even the federal PHC development program, are discrete initiatives which do not address the overall relationship and responsibilities between the federal government and the states in the health sector. As noted several times, the federal government (and to a lesser extent) state governments, command the fiscal resources needed to improve primary health services, but responsibility for these services lies with local governments. In other federal countries, this situation is addressed by negotiation and tradeoffs. For example, in Canada, federal funding is made available to the provinces in return for commitments to meet national standards in health service provision. An overall deal or performance-based contract arrived at in Nigeria would likely look similar – federal financing, technical assistance and capacity support in return for state commitments to certain standards or targets, with the establishment of some mechanism for monitoring these commitments. Of course, given the number and widely differing contexts of the states, targets and strategies could vary widely, with states learning from each other’s experiences.

141. The draft Health Act potentially contains a mechanism where such negotiations and tradeoffs could take place. The proposed National PHC Development Fund, although receiving some sin tax revenue, will be largely dependent on pooled contributions from the federal, state and local governments. Because “deduction at source” from Federation Account transfers to state and local governments has been disallowed, the federal government cannot unilaterally determine the extent and use of state and local government contributions. This will therefore be the subject of negotiation between levels of government, where federal, state, and local roles and types of cooperation on developing PHC services can be defined. For this to occur, or for other mechanisms to be put in place, work at the political level to define federalism in the health sector is also needed and could be done by the existing federal-state coordination body – the National Health Council. As noted above, agreement between the federal and state governments is not sufficient – closer cooperation between state and local governments is also required in order to effectively translate increased resources into improved PHC services.

### **Improving Public Sector Services**

142. *A major aim of changes in the overall governance and financing structure discussed above should be to improve the quality of public sector PHC services. This will require improvements in infrastructure and equipment, in the incentives, remuneration, allocation, and training of health human resources, in drug procurement and distribution, and in support systems.* Possible strategies that could be adopted to improve the quality of public sector health services include: improving health facility supervision and certification, increasing the accountability of service providers through improving consumer awareness using different information channels such as village meetings and media, as well as using mechanisms as community report cards; strengthening professional associations to increase self-regulation mechanisms; and increasing the availability of female health workers, particularly in the north.

### **Working with the Private Sector**

143. *A strong private sector has filled some of the gaps caused by the weakness of public sector PHC services.* To generalize, the better-off and residents of the southern regions use private sector medical providers (i.e. private clinics and hospitals), while the poor in all regions and particularly residents of the northern zones turn to private informal providers, particularly patent medicine vendors.

144. *Although government acknowledges the importance of “public-private partnership,” it is only just starting to effectively define what this means.* For example, evidence presented in this report suggests that the large use of private medical providers in the south and of patent medicine vendors by the poor is not particularly efficient in achieving good health outcomes, given the poor health indicators in Nigeria (even in the south in absolute terms). Some work on public-private partnership is being done by the government such as the malaria strategy envisions a large role for patent medicine vendors in making effective treatment available to households.

145. *The main challenges are to improve the quality of private medical providers, address the issues raised by widespread utilization of patent medicine vendors, make use of the private sector to improve publicly-financed services, and generally integrate formal and non-formal private providers into the health system.* One challenge is to increase the role of private-sector medical services, particularly in the delivery of high-impact interventions. This is especially difficult in the case of preventive interventions, such as immunization or family planning, which are highly-subsidized or free to the user and generally delivered by public sector facilities. It needs to be worth their while to deliver such services, requiring the development of financing and reimbursement mechanisms, such as voucher systems. A second general challenge is related to quality, underscored by the high utilization of patent medicine vendors, particularly in cases of common children's illness. Strategies need to be developed to improve the quality of treatment delivered by these providers, requiring a mix of training programs, education and awareness-raising of clients, and voucher systems or other mechanisms to encourage provider accountability to users in the delivery of high-impact interventions. A third challenge is to effectively make use of the private sector to support or deliver publicly-financed services. Contractual arrangements with for- and non-profit organizations can be a cost-effective strategy for improving services which are customarily delivered by public facilities, perhaps starting with less complicated social marketing activities and then gradually moving to clinical care services, depending on the local context. Finally, a general challenge is to better integrate formal and non-formal private providers into the health system. This could involve including representatives of the private sector in governance structures and enhancing their capacity to participate, improving supervision and regulation, and ensuring the integration of private providers in information systems.

## Supporting Communities and Households

146. *Communities and households can be directly supported and empowered to improve their own health through education, improvement in hygienic behavior, and utilization of high-impact preventive interventions.* Community outreach activities, such as health education and promotion of home-based treatment, are largely absent everywhere in the country, although there are still trained village health workers in place from efforts to train them in the early 1990s. Information and education campaigns can improve basic household hygienic behaviors, such as hand-washing, breastfeeding and nutritional practices, which have a proven impact on health outcomes. Moreover a number of high-impact preventive interventions, such as use of insecticide-treated nets and family planning, depend on community and household knowledge and behavior – as well as on the availability and affordability of the necessary material inputs.

147. *In addition, a number of high-impact curative interventions can be delivered by communities and households themselves.* Home-based care of diarrheal disease such as ORT use is the prototype curative intervention that can be delivered by households themselves. Community and household provision of malaria and pneumonia treatment should also be considered, particularly in contexts of weak and poorly utilized health services. One-off training and communication campaigns are not sufficient, as sustainable support networks, particularly for the provision of drugs and other inputs, are required. This suggests that development of the PHC system and community-based strategies (supported by the PHC system) should go hand in hand.

## Reducing Financial Barriers and Risks

148. *Cost of care is a major barrier to utilization, particularly for the poor, while out-of-pocket payments for health services are very high, further impoverishing many households.* Both public and private sector health providers charge for services, so that cost is an important consideration in the decision to seek care. Surveys indicate that up to half of people who require care do not receive it due to cost, distance, and other factors. The NLSS also shows that private out-of-pocket payments for health services are very high – over US\$20 per capital annually, and three times higher than government health expenditures. A large proportion of the poorest households are at risk of catastrophic health expenditures which could cause further impoverishment.

149. *Although the planned health insurance scheme will help some households, strategies to reduce the barriers to utilization, financial burdens and risks experienced by the poorest households need to be developed.* The planned national health insurance scheme will initially benefit better-off households working in the formal public and private sectors. Although support to community health insurance schemes is envisioned, experience in other countries has shown that such programs are usually small-scale and difficult to sustain. As experience in Sub-Saharan Africa has shown in general, there are no easy answers to health care financing issues. Both supply and demand side strategies need to be considered and tried. On the supply side, improving support to and quality of basic PHC services, including raising health personnel wages and subsidizing drugs, should go some way to reducing financial barriers to utilization and formal and informal user fees. Exemption and waiver mechanisms for the poorest could also be improved, although their transaction costs tend to generally exceed their benefits unless they are well-managed. On the demand side, strategies that could be considered could include voucher systems<sup>12</sup> and/or conditional cash transfers (for immunization, for example).

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<sup>12</sup> Voucher systems work best in places where there is a sufficient number of health providers to choose from.

## **Addressing Disparities**

150. *Regional and socio-economic disparities are exceptionally large in Nigeria, and for the most part coincide, as poverty is higher in the north than in the south.* Poor health outcomes and low utilization of basic services are concentrated in the north of the country although the South-South zone also has a number of unfavorable indicators. Under-five mortality rates in the North West and North East are among the highest observed anywhere, while rates in the southern regions are more consistent with other Sub-Saharan African countries of similar GDP per capita. Similarly, utilization of basic services is much lower among the poor and in the north of the country. For example, children in the highest wealth quintile are 10 times more likely to be fully immunized than the poorest children, just as children in the South West and South East are 5 to 10 times more likely to be fully immunized than children in the North West and North East.

151. *Public sector PHC services are used more by the poor than by the better-off, but most public capacity and resources flow into hospitals, used more by the better-off than by the poor.* These socio-economic differences in utilization have regional dimensions, as higher-level public sector health services are more available in the south and lower-level PHC facilities are more available in the north. In terms of availability of higher-level services, the South South zone is similarly deprived as the northern regions.

152. *There is a clear need to target support to the North.* This report has described regional differences in health outcomes and health service availability and utilization which should inform policy and programs. First, it is clear that support, both financial and capacity-building, needs to be targeted to the northern regions of the country, where health indicators are at levels comparable to the very poorest parts of the world. Essentially, this should mean support to the provision of high-impact interventions which address the main causes of child and maternal mortality.

153. *Achieving better availability and utilization of high-impact interventions for poorer populations in the north and elsewhere will require a mix of strategies.* Addressing the issues discussed above, relating to central disease-specific programs, development of PHC services, federalism and funding flows, should ultimately aim at channeling resources to high-impact services for the poor. More specific implementation strategies, also discussed above, will include improving the quality and affordability of public and private services, improving household knowledge and practices, and directly supporting households.

154. *Programs and reforms should be appropriate to the regional context.* For example, reforms such as health insurance and improved accreditation of private providers may be appropriate to parts of the southern region, where poverty is lower and private medical providers account for a significant proportion of utilization. However, such programs will have little effect on the basic health problems of poor households in the northern regions, where both public and private medical services are insufficient and costly, and where households rely on self-treatment and patent medicine vendors. In these areas, household and community awareness of healthy behaviors and practices could be enhanced using different information channels together with an improvement in the availability, affordability, and quality of health service providers. Moreover deploying additional female health staff will also be essential in the north in order to improve utilization of health services by women.

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