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NIGERIA
HEALTH AND POPULATION
SECTOR ASSESSMENT

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Sector Assessment Team

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ACRONYMS

AHCS	African Health Consultancy Services
AID	Agency for International Development
AIDS	Acquired Immune Deficiency Syndrome
ARHEC	Africa Regional Health Education Center
CCCD	Combatting Childhood Communicable Diseases
CDC	Centers for Disease Control
CDD	Control of Diarrheal Diseases
CHAN	Christian Health Association of Nigeria
CBD	Community-Based Distribution
DHS	Demographic and Health Surveys Project
DPA	Department of Population Activities
EPI	Expanded Programme on Immunization
FAO	Food and Agricultural Organization
FHS	Family Health Services Project
FGN	Federal Government of Nigeria
FMOH	Federal Ministry of Health
FMOI	Federal Ministry of Information
FPIA	Family Planning International Assistance Organization
GON	Government of Nigeria
GPA	Global Programme on AIDS
GWEP	Guinea Worm Eradication Program
HIS	Health Information System
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
IPPF	International Planned Parenthood Federation
JHU/IIP	Johns Hopkins University Institute for International Programs
JHU/PCS	Johns Hopkins University Population Communications Services
LGA	Local Government Area
MIS	Management Information System
M&E	Monitoring and Evaluation
NANNM	National Association of Nigerian Nurses Midwives
NMVCP	National Malaria and Vector Control Program
NIGEP	Nigerian Guinea Worm Eradication Programme
NOCP	National Onchocerciasis Control Program
NONGO	National Association of Non-governmental Organizations of Health
ORS	Oral Rehydration Salts
PHC	Primary Health Care
PPFN	Planned Parenthood Federation of Nigeria
PSI	Population Services International
PVO	Private Voluntary Organization
R&D/H	Office of Health, Bureau for Research and Development, A.I.D.
SAP	Structural Adjustment Program
TFR	Total Fertility Rate
UNDP	United Nations Development Programme
UNICEF	United Nations Children Fund

UNFPA	United Nations Fund for Population Activities
UTH	University Teaching Hospital
VSC	Voluntary Surgical Contraception
WHO	World Health organization

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FOREWORD

At USAID/Nigeria's request, the Office of Health and the Office of Population jointly provided an internal team to carry out a Health and Population Sector Assessment to help the Mission plan its program over the next 5-7 years. Given the extensive amount of work that has been done in Nigeria by A.I.D.'s collaborating agencies, these groups were asked to provide short reviews of the current status, problems and issues in the various technical sectors to serve essentially as a first draft of the Assessment. The reviews were discussed in a Team Planning meeting during which we met with representatives of each of the groups. The Team then made a three-week trip to Nigeria to review the situation and technical and support issues. During the trip we met with government and private officials in Lagos and the field, and traveled to seven states; Oyo, Kwara, Niger, Abuja, Enugu, Imo, and Edo, covering three of the four health regions. We visited health centers and posts, referral and teaching hospitals, and spoke with a variety of collaborating agencies and NGO's. In addition, we met with both the Minister of Health, Professor O. Ransome-Kuti, and with the Ambassador.

A health sector assessment in a country as varied and complicated as Nigeria is a challenging operation. It is one that would have been impossible without the extensive and solid input of the groups who prepared the Sector Reviews, the cooperation and openness of Ministry officials in Lagos and in the field, the collaboration of officials and staff from both the CCCD and FHS projects (particularly Joseph Latunji and Patricia Nwoko), and finally, the excellent support we received from the Mission. Particularly helpful were the efforts of Mrs. Hadiat Shitta-Bey, who handled our scheduling and trips; our excellent drivers, as well as Stephanie Zellner, Gail Umeham and Gail Clopp.

Our Assessment suggests some directions for the Mission and A.I.D. to explore in the immediate future as a basis for designing a program to meet Nigeria's needs in the health and population sectors in the 90's. We were all impressed with the opportunities to work in a country which has taken so many impressive steps in the right direction in terms of primary health care, decentralization, cost-recovery and population. We look forward to working with the Mission to develop new and more effective ways of supporting these efforts and of expanding services with the private sector.

HEALTH SECTOR ASSESSMENT TEAM
November 1991

The following projects assisted in the Assessment by developing Sector Reviews for the Team and by meeting with us to discuss issues and suggestions. We very much appreciate their help in the effort.

AIDSTECH Project
Centers for Disease Control, CCCD and TAACS Projects
Demographic and Health Surveys Project
HealthCOM Project
Johns Hopkins University
    Department of International Health and the
    Institute of International Programs
Mothercare
PRITECH Project
REACH Project
WASH Project
World Bank
Vector Biology and Control Project

EXECUTIVE SUMMARY

From a health policy point of view, Nigeria in many ways can serve as a model for Africa and the developing world. Primary health care has been established as the backbone of the health system throughout the country and funding shifted toward that end; a population policy, if perhaps overly ambitious, is being implemented; and cost-recovery measures, underway throughout the country at all levels, generally seem not to be a barrier to service utilization. Most importantly, responsibility for primary health care has been decentralized from the 31 States to the 589 Local Government Areas, offering an opportunity to make health services more responsive to the population. Furthermore, thousands of Nigerians have been trained in aspects of delivery of primary health care services and family planning. Yet in many places, and as reflected in part by health indicators, the public health system is working ineffectively, affecting both quality and utilization of services.

On the other hand, Nigeria's private sector in health is dynamic, widespread, and potentially a great source of primary health care. It is largely untapped to date in that area, however, except for A.I.D.-sponsored family planning efforts.

Our strategy is thus a two-fold one: first, to upgrade the quality of primary health care services in the public sector; and secondly, to greatly expand the availability of health and family planning services in the private sector. Focused actions in these two areas, we believe, will do much to remedy the gaps and systems failures we saw in each of the sub-sectors studied (child survival/primary health care, family planning, AIDS prevention and control, water and sanitation, and tropical disease control).

In the public sector, with the increasing decentralization of all responsibility for PHC to the LGAs, it is particularly urgent to strengthen service delivery at that level. Actions focus on two areas: improving the quality of supervision and training, especially in terms of follow-up; and upgrading the management capabilities of LGA directors and health staff.

In the first area, despite the amount of training that has taken place in the system, except in the Continuing Education program in Niger State through the AID-supported CCCD project, and to some degree in the training component of the FHS project, the team found little follow-up or idea of systematic supervision at any level. Relatedly, training in many cases appears to have been largely theoretical, rather than competency-based. Furthermore, although

standards and protocols have been established in many cases, such as for malaria or cholera treatment, whether they are actually followed is actually unknown and doubtful. In this area, both the CCCD experience in Niger State, focusing on the supervisory system as well as training, and the FHS work in creating a family planning training network, need to be examined and considered for further expansion and replication, perhaps through regional or zonal-based training of training centers.

Plans to upgrade management capabilities of LGA leaders at the moment focus on use of a 3-month certificate course in management and planning at Institutes of Health Management in Benin, Illorin and Maidugari. The curriculum at present is largely theoretical, and lacks input from the experience to date in model LGA's, with the family planning program, or the CCCD effort. By supporting development of teaching cases based on those experiences, A.I.D. could initiate efforts to strengthen health management training programs. This could then be followed with assistance to the Institutes under the new project, in operations research, supervision, and other aspects of management specific to the Nigerian health system. Finally, as mentioned above, cost recovery efforts, even at the primary care level, do not appear to be a barrier to service utilization. Rather, when combined with service improvement especially drug availability, cost recovery measures seem to increase demand for services. Operations research to test the effect of quality of service improvement on utilization of services and on impact should be supported, perhaps through the Institutes of Health Management.

With the private sector, we recommend that immediate action be taken to increase the Mission's knowledge base of the private sector as a first step to expanding use of a variety of mechanisms to increase service delivery. Both oversight and funding mechanisms need to be identified, expanding those already in use in the family planning program to primary health care. Opportunities exist with religious groups, women's organizations, professional and research organizations to deliver services, provide IEC and carry out operations research in family planning, AIDS prevention, child survival and primary health care. Training, perhaps even provided by or in connection with the public sector, could be provided in delivery of correct treatment of malaria, diarrhea, ARI, STDS, and family planning. Social marketing efforts in family planning can be greatly expanded to include health commodities such as ORS, and bednets for malaria control; as can community-based distribution mechanisms, such as the market women project in Ibadan and Lagos. A specific need exists to find private sector mechanisms, such as religious, community, and women's organizations, to reach more isolated groups, in terms of geography, culture or religion, such as those in the stricter Muslim North.

With respect to regionalization of efforts, the team agrees with plans to increase the geographic focus of the FHS project, bringing all elements of the project to bear on the same states. In that way we believe the impact of the policy component should be increased. Similarly, we look forward to the integration of family planning efforts in the CCCD effort in those and other areas as a means of increasing impact. As in the CCCD project, we urge that the effort to measure, document and disseminate the experience with these focused efforts be intensified, so as to expand the benefits to a greater number of LGAs more rapidly.

On the basis of our observation of the similarity of problems and gaps in all sectors, we urge that planning be focused toward an integrated health and child spacing program/project in follow-on to the existing separate efforts. As one step to that end and as a prelude to the new project, further assistance on health and management information systems should ensure integration of health and family planning information and, over time, incorporate the commodities tracking system for both. To the maximum extent possible, eventually such systems should reflect PHC and family planning services delivered through the private sector as well.

Effective management of the health sector, and planning and accountability for the use of resources are equally as basic to delivery of quality health services as they are to good governance. A focus on health service delivery will spin-off improvements in the delivery of all services. Several recommendations of the assessment strongly encourage and support the A.I.D. Mission's initiatives in governance. These include increased use of local organizations such as non-governmental organizations and the Better Life network; management training; strengthening of the supervisory and monitoring system; and a substantial increase in the use of the private sector.

I. INTRODUCTION

Although it is only the fourteenth largest country in Africa in terms of size, Nigeria is the most populous nation in the continent. Several Nigerian states have populations larger than that of many African countries. One of every five Africans is a Nigerian and slightly over 5 million babies are born in Nigeria every year. The last reliable census took place in 1963, with a new one scheduled for completion in 1992. Meanwhile, the Government estimates the mid-year 1990 population at 119.8 million with an average density of more than 121 persons per square kilometer. Two-thirds of the population live in an estimated 97,000 rural communities of less than 20,000 inhabitants. About 48% of the population are aged below 15 years, and women of reproductive age (15-49) constitute approximately 24% of the population. With the average fertility per woman of 6 plus children, the projected 3.3% population growth rate is among the highest in Africa and, if continued, will result in the doubling of Nigeria's population in about 20 years.

Nigeria is potentially one of the richest countries in Africa with abundant human and natural resources and significant agricultural, commercial and industrial potential. Its resource base consists of a large and dynamic population and an enormous area of fertile land. The latter produces a wide range of agricultural and forestry products and contains abundant minerals and hydrocarbons. It has important reserves of crude oil and natural gas. Inland and offshore fishery is also an important activity.

The oil boom of the 1970s shifted Nigeria from an agriculturally based economy to one that now relies on oil for more than 95% of export earnings and 80% of federal budget resources. The greater opportunities made possible by the oil boom-induced massive rural-urban migration have had a devastating impact on agriculture. Once a net food exporter, in 1985 Nigeria imported more than $500,000 million worth of foodstuffs. Nigeria has banned most food imports since 1987.

Nigeria has experienced severe economic difficulties since 1982 because of a dramatic fall in export revenues and heavy debt service payments. President Babangida responded to the worsening economic crises by launching a Structural Adjustment Program (SAP) in July 1986. The effect of SAP on the standard of living of the average urban Nigerian has been negative. Earnings declined, food produce and other amenities became scarce, and large numbers of workers and employees lost their jobs.

Nigeria is a country of remarkable diversity in its economy, physical conditions, vegetation and ethnic groups. It is estimated that there are over 300 different ethnic groups in Nigeria with as many different languages and dialects: larger groups may have a

population in excess of several million, while the smaller groups may have a few hundred. Although these groups are generally geographically located, there have been contacts and migrations of varying types and degrees of intensity between the different groups throughout history. The ten most important ethnic groups account for about 80% of the population. English, Hausa, Yoruba and Igbo are recognized as official languages.

A majority of the population is Christian or Muslim with a small number adhering exclusively to traditional religions. Literacy is estimated at 54% for males and 35% for females, with large regional disparities and variations.

The current health system and many key health programs of the Nigerian Government were initiated during the oil boom of the 60's and the 70's during which time Nigeria planned for the State-administered delivery of health and other social services on a grand scale. Rapid population growth in combination with the collapse of the oil market and the subsequent economic decline of the 1980's is causing a collapse of these sectors most directly concerned with health and development. Gross manifestations are the marked declines in medical attendance at childbirth and in primary school enrollment over the past five years. The DHS has documented an increase in under-5 mortality in the past five years which has occurred in all but the southwest zone. The DHS also documents a substantial and growing "unmet need" for contraception.

As a result of the current economic decline, the approach to health services has been revised to emphasize decentralization, cooperation with non-governmental organizations and the private sector, strengthened support of PHC, increased emphasis on quality and new approaches to financing these health services.

There is no systematic collection of vital statistics such as birth or death registry data. Nevertheless, the limited statistics that are available indicate a generally poor state of health of the population: childhood mortality reaching 109.6 per 1000 children aged 1-4 years; infant mortality, 91.4 per 1000 live births; life expectancy, 54 years. The general pattern of health and disease in Nigeria is dominated by infectious diseases, malnutrition and high fertility. The most common causes for illness in Nigeria during 1989 were malaria, diarrheal diseases and pneumonia, with malaria, diarrhea, and epidemic outbreaks of cerebro-spinal meningitis and yellow fever accounting for more than 75 per cent of disease-related deaths during that year. Schistosomiasis, dracunculiasis and onchocerciasis are also endemic to Nigeria and produce much morbidity and economic loss. Epidemics of yellow fever occur every few years, often affecting many thousands in acute outbreaks with high mortality. The epidemic of HIV in Africa is rapidly overtaking Nigeria and tuberculosis is also increasing. With the uneven development and rapid urbanization which is occurring in Nigeria, injuries from motor vehicle accidents and uncontrolled

small industries are a major cause of morbidity and mortality. The incidence of cardiovascular diseases is increasing. Drug addiction and diseases due to tobacco smoking are also rising.

Finally, as documented in the DHS, the health of those in the northern regions is significantly worse than those in southern regions. Mortality rates are higher than previously estimated, and the prevalence of stunting and wasting demonstrates a greater than expected magnitude of chronic malnutrition.

In sum, fifteen years after initiation of its Basic Health Services System, Nigeria continues to experience excessive child mortality and morbidity, high fertility and extremely low contraceptive prevalence. Utilization of available health services is low, in part because of their low quality and unavailability of drugs; health prevention measures are inadequate; budgets for health services have declined in real terms and are insufficient for staff, let alone programs; pilot efforts in the public sector have not proved sustainable, with minimal spinoff noted to date from activities supported by the Government or donors; connections and collaboration between the public and private sectors, the latter which provides much of the country's health services, are rare. Yet the needs for health services are growing even as the ability to pay their full cost is shrinking rapidly.

On the other side of this discouraging picture are strengths to be observed throughout the country. First, Nigeria's private sector, traditional and modern, commercial and voluntary, is vigorous; and her human resources base, in terms of a trained professional health staff in both public and private sectors, is broad. The Primary Health Care system, as refocused and strengthened in 1988 under the current Minister of Health, is extremely strong in concept and, in many ways, in execution. The country's National Population Policy, if ambitious, is widely accepted and its implementation intensifying. Cost-recovery programs in health and population are underway, widespread and seemingly accepted, with recognition of their potential for funding much primary health care. Finally, decentralization of primary health care, if mandated with little preparation in terms of staffing and financing, is well underway, and offers potential for real community participation in health services.

The task thus becomes how to use these strengths to remedy the weaknesses discussed above to improve access to and utilization of appropriate health care, leading in turn to increased child survival and improved quality of life for Nigerian families.

II. STRUCTURE OF THE HEALTH SECTOR

A. Organization of Primary Health Care in the Public Sector

1. Federal

In 1986 the Federal Ministry of Health (FMOH) enlarged and reorganized its health care system and a new National Health Policy was adopted in 1987. The goal of the Primary Health Care (PHC) program is to achieve health for all Nigerians by the year 2000 through the integration of preventive and curative services at the community level. The PHC has nine components: health education; food supply and nutrition; water and sanitation; maternal and child health including family planning; immunizations; prevention and control of endemic diseases such as malaria, acute respiratory diseases and AIDS; appropriate treatment of common diseases and injuries; and provision of essential drugs.

In theory, the public sector health system is extensive and well-conceived. The National Health Policy is implemented through the joint efforts of the Local Government Authority (LGA) and the State and Federal levels of government. The primary level of health care implemented by the LGAs and delivered by village health facilities is the first contact of families and communities with the health system. Secondary health care is administered by the State governments and is delivered by general or district hospitals and comprehensive health centers. Teaching and specialist hospitals constitute the tertiary level of health care which is administered by the Federal Government. The Government intends to functionally link up these three levels of care by developing an efficient referral system. In July 1990, in line with the administration's general policy of decentralization, the FMOH issued directives that give LGAs total jurisdiction over PHC in their areas. The financial implications, especially the flow of resources and personnel from the federal and state ministries of health to the LGAs, are not yet clear.

Overall responsibility for the health sector rests with the FMOH which provides policy guidance and strategic support to all the states and to the Federal Capital Territory, coordinates state efforts towards a nationwide health system and collaborates with the states to monitor and evaluate implementation of the national health strategy. The Ministry has eight departments and in principle is responsible for the following health care services and training institutions: special hospitals (orthopedic, eye, psychiatric); teaching hospitals; national laboratories; communicable and endemic diseases control; international health and quarantine; regulation and surveillance of standard training of health personnel and of health standards; external health

relations; drugs and poison control; national intersectoral health care linkages and primary health care support (national planning, training, technical assistance and program support).

2. State

The Federal Government collaborates with the States to monitor and evaluate the implementation of PHC. Formal linkage between FMOH and the states occurs through the National Council on Health, chaired by the Federal Minister of Health and composed of the State Commissioners of Health.

The State governments are responsible for planning and coordinating the state health systems; for operating and maintaining secondary and non-specialized tertiary hospitals and some primary health care facilities; for implementing public health programs; for training nurses, midwives and auxiliary staff and for assisting the LGAs with the management and operation of some primary health care facilities. In each state, responsibility for health programs is shared by the State Ministry of Health (SMOH) the Hospital Management Board (HMB), and the Local Government Authorities (LGAs). In general, the SMOH is responsible for setting policy and standards, whereas the SHMB is charged with the day-to-day management of service facilities. The SMOH is headed by the State Commissioner of Health who is responsible to the State Executive Council and is assisted by the Director General in the SMOH. Its main responsibilities include planning and coordinating the state health system; operating and maintaining secondary and non-specialized tertiary hospitals and some primary health care facilities; implementing public health programs; training nurses, midwives and auxiliary staff; assisting the LGAs with the management and operation of some primary health care facilities. The HMB administers the state's hospitals and in some cases health centers and urban clinics. Its main responsibilities are personnel administration and the financing and management of logistical support systems including drugs, supplies, equipment and maintenance. The HMB is headed by a chairman who in some states reports to the State Commissioner of Health and in others to an independent board. The SMOH establishes the policies under which the HMB functions, while maintaining overall responsibility for the state's health programs.

Overlaying the states in the health sector are the Zones, arms of the federal authority. While their official relationship with the States and LGAs is unclear, the Zones could possibly serve as the focus for regional training efforts. To date they have been primarily active in family planning activities.

3. Local Government Areas (LGA)

Each of the 589 LGAs in Nigeria is responsible for operating the health facilities within its area; for providing basic outpatient, community health, hygiene and sanitation services; for the provision and maintenance of infrastructure to provide health services; and for the involvement of the local community in support of primary health care. The SMOH coordinates these activities and provides technical support. In each LGA the responsibility for health rests with the Health and Social Welfare Councillor whose unit is typically comprised of four sections: preventive health, including public health, information programs and public sanitation; curative health, including the operation and supervision of health facilities; leprosy treatment; and social welfare. Until recently the states have provided special grants or seconded staff to the PHC facilities. As the LGAs attain more autonomy they are also being handed over basic health centers and hospitals. Currently many of the LGAs do not yet have the financial resources, technical staff or managerial competence to carry out the mandate given to them, a major weakness in operation of the system.

The LGA PHC system is organized at three basic levels: village, district and the local government level. Each has a distinct PHC committee that oversees the organization of the program. These committees strengthen the management of the PHC at the various levels by identifying the health and social needs of the community and by planning and implementing the projects. Volunteer health workers and traditional birth attendants (TBAs) are trained to render PHC services at places of work (including farms), houses and school levels which represent the village level of PHC structure. VHWs, TBAs and other categories of formally trained community health workers run the Health Clinics, Health centers and comprehensive health centers at both the district and local government headquarters levels.

The village health post is the most rudimentary facility, serving approximately 500 persons.In many cases a typical health post is located as an annex of a village health worker's residence or a room in the home of the traditional ruler of the area. The village health post is staffed by a voluntary/village health worker who provides both preventive and curative care, including administration of prophylaxis against diseases like malaria, treatment of minor injuries and illnesses, control of communicable epidemic and endemic diseases through immunization and ORT. Promotive aspects deal with issues such as health education on food hygiene, water and sanitation and nutritional assessment of pregnant mothers and growth monitoring in infants. VHWs are also responsible for maintaining records of births, deaths and records on attendance at the post.

Dispensaries are under the control of the LGAs and serve populations of about 10,000 people. They are often manned by Community Health Aides and headed by a Community Health Assistant. The services provided are broader and of greater sophistication than those carried out at the level of Health Post. The services provided are related to the nine components of PHC.

Health clinics are often specially designated health units that serve specific aspects of the health needs in a community such as maternal and child health. Health clinics serve populations of between 20,000 and 50,000 people in rural and urban areas, respectively.

Primary health care centers serve between 20,000 and 80,000 people. A primary health care facility has health posts and dispensaries and its satellite facilities through which it administers its outreach services. Primary health care centers were formerly managed by the SMOHs, but are now managed by the LGAs. Center staff should include a Medical Doctor and the facility is supervised by a Community Health Officer who is assisted on a regular basis by a visiting Medical Officer in charge of the LGA. Other staff include a Community health supervisor, a public health nurse, community midwives, nurses/midwives, community health assistants, public health superintendent, laboratory technician, dispenser/pharmacy technicians, assistant record officers and other unskilled workers. The services offered in a health center are all within the scope of the nine component services of the PHC system.

A comprehensive health center provides relatively more comprehensive medical and health coverage than the Primary Health Care Center. It has a population coverage of between 100,000 and 150,000. Centers are staffed by a resident Medical Officer.

At present,the Ministry of Health reports a total of 7,725 public service delivery points and 4,342 private sector ones. Of the public service delivery points, at least 1,492 provide family planning services. The number of private sector delivery points providing family planning services is not known.

B. Private Sector

The private sector in health service delivery in Nigeria, described further in Section IV, is large, diverse and relatively unconnected to the public health care system. According to a World Bank Study in Ogun State, 50% of all health care facilities in urban areas were private, and half of all physicians were practicing in the private sector. The recent Nigerian Demographic and Health Survey shows that 63% of women using modern contraceptives receive either their supply or related information from non-government sources. A recent urban EPI study found that a surprisingly high percentage of immunizations given in urban areas are delivered by the private sector (18.5% of measles immunizations given in Lagos State). The Christian Health Association of Nigeria (CHAN) estimates that 30-40% of primary health care services delivered in Nigeria are delivered by CHAN member organizations.

There are few examples of smooth collaboration between the public and private sectors, or recognition of complementarities. Quality control exercised by the public sector over private sector operations is minimal. Little cooperation has existed between the public sector and the many church-related health service providers in Nigeria; nor has the public sector tried to make use of traditional practitioners, still the preferred providers in some areas, to increase access to health care.

Neither the government nor A.I.D. has studied in any depth the current and potential role of the private sector in health. Nonetheless, in the current economic situation, the Federal Government is actively pursuing privatization in the social services. Specifically, opportunities for collaboration at the secondary and tertiary level are under consideration in the Ministry, supported in part by A.I.D.'s Primary Health Care Support Program. Yet to be tapped is the private sector network in support of primary health care beyond the strong participation of the Planned Parenthood Federation (PPFN) of Nigeria in family planning.

III. FINANCING AND SUSTAINABILITY

A. The Government's Financing of Health Care

Health sector expenditures are made by all three tiers of government. The primary source of funds for public expenditures on health, however, is revenue generated at the federal level. Retaining 50% of these funds, the Federal level allocates 30% to State governments and 15% directly to Local Governments. Five percent is allocated for Special Funds. Overall, the Federal Ministry of Health assumes a very low share of total Federal budget allocations, dropping from 2.5% in 1981 to between 1.3 and 1.7% in the years 1987 through '90. The total projected capital budget for the '91-'93 period is 2352.442 million naira, or an estimated $0.65 per capita annually.

Consistent with the National Health Policy, primary health care receives a higher priority than in the past at the Federal level, with the Departments of Primary Health Care receiving 28% of the capital budget, the Department of Disease Control, 12.1%, and Population, 5%. Although together this comprises almost half (45%) of the investment budget, hospital services receive 48.5% of the budget, a drop from more than 70 per cent, however, in the early 80's. The capital budget was cut in 1991 by nearly 24% Nonetheless, special off-budget allocations from the Presidency, made for specialist, secondary and tertiary care projects, amount to 5 times the size of the capital budgets and dwarf annual plan allocations.

Although the Ministry places a high priority on primary health care, classifying all PHC activities as core or priority investment in the capital budget these categories are, however, shared by half of the expenditures for tertiary care facilities. Some 68% of the capital budget in fact is made up of these core or priority investments.

Finally, to achieve effective and efficient health program implementation, the allocation to non-personnel recurrent expenses should be at least 40% of the total health sector recurrent allocation. At State and Local Government levels, however, personnel costs average approximately 80% and 93% of recurrent budgets, leaving little for program implementation. With the transfer of all responsibility for PHC to the LGA level, with what appears to be a minimal budget supplement, there will be even fewer resources with which to carry out that charge.

B. Cost Recovery Efforts

Although opportunities for cost recovery exist in Nigeria, they have been only partially implemented. The Federal Government has established two major committees to investigate health care financing options, including the 1987 Special Committee on National Health Care Financing, and the 1988 Committee on National Health Insurance. The latter has led to a pilot project on National Health Insurance which needs evaluation. Follow-up on the former seems to have been overtaken by the emphasis on Primary Health Care, and the related Essential Drugs Policy and Bamako Initiative. Funded in part by the World Bank, under the Essential Drug Scheme, LGA's were asked to use some of their Federal subvention as seed money for a drug revolving fund to be managed at the LGA, district and village levels through committees established for that purpose. Following guidelines issued by the PHC Department, committees determine pricing levels, requisition drugs, and decide on the utilization of profits, often using them to maintain health posts in villages, and to train village health workers and TBAS to staff the services and operate the funds. Launched in 1987, the program was intensified by the Bamako Initiative which strengthened monitoring of the program, systematized procedures, increased the communities' role, and led to recognition of the potential of the program to support primary health care. By the end of 1991, some 17 LGAs will be participating in the Bamako Initiative. Experience to date with the program is reported by UNICEF, in a soon-to-be-released evaluation, to be positive. Sampled communities indicated ability and willingness to pay for drugs, and utilization of services has increased. No current plans exist to extend the Bamako Initiative to additional LGAs, a step which would require increased attention to logistics with the extra inputs devoted to the current Bamako Initiative LGAs, and to assuring the pricing structure is able to maintain cost recovery levels on a national level. Furthermore, plans that communities would begin to procure drugs themselves have been hampered by currency exchange restrictions and the risk of adulterated drugs.

In sum, the revolving fund aspect of the Essential Drugs Program seems to be almost universally operative if unsystematic in terms of prices and utilization of profits. To increase program sustainability, VHW's should be trained in management, and an alternative to UNICEF drug procurement should be sought, perhaps through local manufacture combined with an effort to improve drug quality control. The importance of pharmaceutical quality control as well as of cost recovery efforts in general makes this an area worthy of further study as an element of A.I.D.'s program.

C. Other Sources of Financing

UNICEF, the World Bank, UNFPA, as well as bilateral donors and a range of NGOs provide a wide range of technical and financial assistance to Nigeria, as summarized below.

UNICEF: Under its 1991-1995 Country Program with planned total funding of $125 million, UNICEF supports interventions to increase child survival and improve the quality of development and protection of Nigerian children and women. At the national level, the program focuses on policy promotion and management support to the health sector, specifically for primary health care, and especially for immunization and diarrheal disease control. At State, LGA and community levels, UNICEF is providing management support for PHC in LGAs of ten focus states, and working on the development of community-based PHC systems. Other programs strengthen health care support systems: including mass media capacity building; community participation and mobilization of non-governmental organizations; support for the development and communication of a national policy on AIDS; and development of sustainable information systems.

UNICEF is also assisting state governments to implement integrated water supply, sanitation and health education projects, including Guinea worm eradication; and to support household food security and nutrition through provision of improved planting materials, training in nutrition and in appropriate crop and livestock production techniques, and improved food technology.

In addition to preparing a basic education program, and as a prelude to development of a national policy on working children, UNICEF is sponsoring a small-scale program for women and children to improve the income-generating capacity and living conditions of families with homeless children in Calabar and Kaduna.

UNFPA: In addition to its budgeted $35 million dollar program, UNFPA is seeking additional funding to support plans to expand the availability of MCH/FP services to rural areas; increase contraceptive prevalence to 15% by 1995; and to strengthen the national structures for population planning, coordination, monitoring and evaluation, data collection and population education. Support will be provided as well for AIDS prevention, environment and population activities. UNFPA's Women, Population and Development projects promote female literacy, the use of family planning facilities and income generating activities for women.

World Bank: Although the World Bank appears to be restraining its industrial and infrastructure investment in Nigeria, its involvement in the health and population sectors is wide and robust. Five projects are either underway or nearing agreement. Two, the $34 million Sokoto Health Project begun in January 1986, and the $32 million Imo Health and Population Project, while focusing on state programs, also contain components to strengthen the FMOH's capacity to assist state and local health programs and

to prepare new policies and projects in health and population. The Essential Drugs project, launched in 1990 for $68 million, focuses on four states (Bendel (now Edo and Delta),Cross River, Gongola and Kwara) and all major urban areas served by the 18 Federal hospitals. The project supports the FMOH's own efforts to develop procedures to assure an affordable and sustainable supply of safe drugs, especially for primary health care, through institution of drug revolving funds, and cost recovery policies and procedures, supported by technical assistance and management training. Under the project, seed money was provided for "essential drugs" to participating states.

The World Bank's $70 million Population Project, (1992-96) provides assistance to the FMOH's Department of Population Affairs to strengthen family planning efforts of the Ministry and four other Federal agencies, including the Ministries of Education and Information, universities and non-governmental organizations. Subprojects address service delivery, information,education and communication, as well as financing,monitoring, evaluation and research. No procurement of commodities is planned by the Bank which assumes these will be provided through 1996 by UNFPA and A.I.D.

The Bank has also proposed the establishment of a Population Research Fund (PRF) to be administered by the Nigerian Institute of Social and Economic Research (NISER). Research would focus on sociocultural and economic constraints to implementation of the National Population Policy and on cost-recovery issues.

Especially important for the further implementation of PHC decentralization, the Bank's Health System Fund, a $70 million loan signed in 1990, provides a line of credit to the States for strengthening health delivery systems at the local level. With the transfer of all responsibility for primary health care to the LGA's, some question exists as to how the Fund, developed with the FMOH Department of Planning Research and Statistics, will now operate.

Still to be approved is the First Referral Hospital Fund loan, under which states will select five LGA's with acceptable PHC delivery systems to develop a "first referral hospital" with assistance from the Fund. Procedures and criteria for this loan, in a departure from previous practices, are being developed with the FMOH Department of Hospitals.

Finally, the Bank is working with the GON's Food and Nutrition Committee and other donors to develop a multisectoral food and nutrition loan. A.I.D. has been asked to support some of the studies for this preparation.

World Health Organization: Working largely with UNICEF in projects in health and primary health care, the control of diarrheal diseases, the Bamako Initiative and essential drugs, as well as water supply, WHO serves as a technical advisor, with little financial input. WHO has a major role in supporting Nigeria's AIDS prevention and control programs through its Global Programme on AIDS (GPA).

Several other multilateral and bilateral organizations, including the United Nations Development Programme, the European Economic Commission, the Government of Japan, etc. are assisting the Government of Nigeria's health sector, with several of these helping in the area of water and sanitation.

Planned Parenthood Federation of Nigeria (PPFN): The largest voluntary non-government organization in Nigeria promoting family planning, PPFN has a presence in 17 of Nigeria's former states and plans to establish clinics in the remaining ones. Total expenditures for 1992-94 activities are estimated at $28 million. Operating mainly in urban areas, PPFN also carries out community-based distribution programs and promotional programs for family planning and women's development nationwide. PPFN receives support from the International Planned Parenthood Federation as well as from A.I.D. and UNFPA.

Three other groups collaborating to some degree with A.I.D. efforts in support of Nigeria's programs in the health sector are the Ford Foundation, focusing largely on research and innovative approaches to population issues and women's reproductive health and AIDS; Rotary International, the major non-governmental contributor to the EPI campaign; and Africare, working actively in AIDS prevention and control, child survival, river blindness, income generation and literacy project. Donors such as the MacArthur and Carnegie Foundations also provide funding support in population, child survival and women's health issues.

IV. FIELD ANALYSES

Introduction

As a part of its review, the Assessment Team met with public and private sector individuals and officials both in Lagos and the field. Splitting into two teams, we traveled to six states, covering three of the country's four health zones, and observed both public and private facilities and health care. In so doing, we focused on technical sectors, such as EPI, Diarrheal Disease Control, MCH, Nutrition, Family Planning, AIDS, Tropical Diseases, and Water and Sanitation, as well as cross-cutting issues, e.g., logistics, management, information systems, Information, Education and Communication (IEC), financing. Beyond that, we attempted to analyze the strengths and weaknesses of the public and private sectors in providing primary health care. Simply put, to increase the quality and quantity of health care services, including family planning, we believe a two-pronged approach is required: first, the public sector delivery system must be strengthened to provide quality and accessible care, especially at the LGA level; and simultaneously, a much greater number of private sector channels and outlets must be used for service delivery and promotion. A summary of our analysis of needs in the public sector, and of opportunities in the private sector, as well as the links needed between them, follows.

A. The Public Sector

1. Data Systems

The common feature limiting the values of all descriptions of morbidity and mortality patterns in Nigeria is the lack of reliable data. Basic demographic data are essential for planning and monitoring of health services. Demographic data are very limited, even though there are currently at least four health information systems operating in Nigeria, including a sentinel surveillance system, a notifiable diseases routine reporting system, the Primary Health Care system and an in-patient hospital reporting system. The sentinel surveillance system reports monthly on 11 diseases, the notifiable diseases system reports monthly on 40 communicable diseases and the PHC system reports monthly on 7 diseases. The Monitoring and Evaluation (M&E) Unit of the Primary Health Care Department has received intensive technical and material assistance with their HIS by CCCD. They have recently developed an integrated comprehensive MIS/HIS in collaboration with FHS and this system includes a family planning form. Health data from the private sector are very scarce, even though the private sector is meant to

participate in the notifiable disease reporting system. In addition to the above HIS systems, the FHS has been operating its own family planning management information system which was meant to cover both the private and public sector.

The original system was expected to provide appropriate data for monitoring of family planning activities and for managing logistics and commodities. This system has not been very successful in either arena, especially in the private sector. Efforts to improve the collection of family planning data continue.

The health data currently being collected could be more useful to health planners and policy makers if the data were appropriately analyzed and reported. With regard to the data collection itself, the multiplicity of HIS systems means that health workers at every level must spend a great deal of their time, which could be spent with clients, filling out forms. Until the advent of the newly created Nigeria Bulletin of Epidemiology, there was very little feedback to the field. This meant that many of the workers filling out the forms did not have a good understanding of the purpose of the forms, nor did they know how to use the data which they had collected. A separate unresolved issue concerns how the current information systems are validated.

2. Quality of Care, Supervision and Management

The Nigerian health system is one of the largest in the developing world. The policies of the current administration emphasize initiatives long supported by A.I.D., including PHC services, decentralization, cost recovery and provision of family planning services. These initiatives are not merely rhetorical: the team witnessed concrete examples of these progressive policies at every level. Implementation, however, is another matter. We found many opportunities for the application of U.S. technical expertise to assist the GON in carrying out its policy objectives.

There has been surprisingly little direct attention to the effectiveness of the health system per se. Donors have focused on inputs, such as supplies and training. Similarly, much important assistance has been directed toward measuring the effect of the health system in terms such as reduced measles cases or increased family planning acceptance. Relatively few efforts by any donor have focused on the details of how the different categories of health system staff actually do their jobs. The limited efforts in this area are all USAID-supported. The results show that direct attention to the process of delivering health services produces findings of practical importance. They also suggest that concrete opportunities to improve the system are widespread.

U.S. strengths in the fields of quality assurance, operations research, and management sciences are well suited to addressing the service delivery deficiencies at issue. If this assistance can

successfully institutionalize a program for continuous improvement within the health care system, relatively modest investments could produce substantially improved care on a national basis. Further, systematic attention to the process of service delivery can address not only the quality of services but the efficiency of the system as well.

To a large degree, FMOH experts have precisely defined how care should be given by various service providers. There is, for example, an excellent step-by-step protocol for evaluating and treating a child with fever. In practical terms, quality of care is the degree to which health workers actually comply with these carefully developed standards. CCCD has carried out a small number of revealing studies in which observers with standardized instruments measured the quality of service delivery. The results of these initial efforts are disturbing in that many key steps in care were carried out in only a minority of cases. There is also compelling indirect evidence of deficiencies in quality, such as a cholera case-fatality rate 10 times that seen in other LDC settings. A second basic element of quality, client satisfaction, also requires further review. In the family planning arena, providers are receiving training in counselling and are also being taught how to evaluate their service delivery programs. In many family planning clinics, providers are reporting that the amount of space available for waiting clients and for client counselling is inadequate. Furthermore, they report that staff time is poorly managed and that clients must often wait hours before they are seen by a provider.

USAID can assist the Ministry to develop a cost-effective program to monitor the quality of services being delivered by the health system. Senior officials have expressed their concern about quality in their meetings with the team.

An extensive and costly, multi-level supervisory hierarchy is already in place. The supervisors we talked to and the reports we reviewed, however, do not deal effectively with quality. Moreover, very few donor activities have specifically examined the effectiveness of this critical group. Any prospect for institutionalizing activities to assure the quality of care in the Nigerian health system will certainly depend on this cadre.

The poor development of quality assessment activities by supervisors is naturally associated with weakness in problem solving. USAID's assistance needs to focus on the fundamental process of examining services, finding where they are flawed, and then dealing with those problems. This process cuts across all areas of service delivery, and includes activities such as patient counseling and referral.

Assistance efforts should include the vast hierarchy that, in principle, monitors and supports the lowest level supervisor. We

found no instance in which this role of higher level supervisors was examined or documented. At present, some of the most talented professionals in Nigeria are handicapped by a system that leaves them with little influence over how services are actually provided on a day-to-day basis.

We also found a range of opportunities for USAID initiatives in the role of support staff, those whose function is something other than directly dealing with patients. Here again, initial USAID efforts suggest the need to do more. In Niger state, CCCD assistance has focused on training that is evaluated in terms of defined competencies, rather than simply counting attendance at workshops. The cost and effectiveness of various other training efforts in Nigeria merit similar attention. Similarly, training in logistics, supervision, and data management could be made more cost-effective by insisting on well-defined competency outcomes. It should be noted that one of the major accomplishments of the FHS project is the number of people trained in both the private and public sectors.

The decentralization process also highlights the need for effective management at the LGA level. A 3-month certificate course in health planning and management has been developed with three Nigerian universities, with plans to use this course to train LGA managers. The public sector component of FHS is currently providing management training to at least 750 LGA, State and Federal planners. This training is occurring completely independently of the rest of the health system.

The team agrees that LGA level management is a critical issue, particularly since few officials at this level have had any such training. We are concerned, however, that the present curricula are derived entirely from sources other than the actual management of LGA health services. The program director interviewed by the team welcomed the possibility of funding to support field studies of LGA management. Teaching cases based on real problems are needed for this training program. In addition, as with training at other levels, it is important to define the outcomes desired from the course. USAID could provide technical assistance to develop indicators for LGA management, reflecting planning, personnel management, finance, logistics and other management functions. Lists of this kind are available from central projects.

In summary, USAID has the opportunity to help evaluate and improve the performance of health system staff, particularly at the LGA level, but including technical staff at the state and federal levels. The day-to-day performance of these personnel has been largely neglected, yet appear amenable to U.S. expertise.

3. Information, Education and Communication

Promotional, motivational and educational activities of the National Health Policy are implemented by all levels of the Government system. Both the Federal Ministry of Health (FMOH) and the Federal Ministry of Information (FMOI) conduct IEC activities. Within the FMOH there is a Health Education unit housed in the PHC Department and an Information, Education and Communication section housed in the Disease Control and International Health Department. Each State Ministry of Health has a health education branch, and in some States there are LGA health education officers who are responsible for implementing health education at the LGA level. There are also some clinic workers supervised by nurses who do health education in clinics. The primary IEC activities of the Public Sector are the production and provision of print materials, community mobilization and health education.

A study has been commissioned by the DPA to survey all ongoing IEC activities in the Health sector. The survey will be used to coordinate IEC activities amongst the implementing agencies including international donors, as described below.

USAID is supporting the IEC component of the FHS project and some health education activities of the CCCD project. The major activities of the FHS/IEC component of the FHS project are IEC materials development training, training in counselling and personal communication skills, development, implementation and monitoring of national and state IEC projects including clinic outreach, community mobilization, print material production and distribution and mass media planning. Linkage formation and team building between the public sector and other agencies such as media houses are key functions of FHS/IEC. CCCD works with the Public Sector on IEC activities and collaborates with the Africa Regional Health Education Center (ARHEC) in Ibadan to train people in health education planning and management.

The 1991-95 UNICEF program consists of four Advocacy and Social Mobilization projects: advocacy, mass media capacity building, community participation and empowerment and mobilization of NGOs, all including significant IEC components.

UNFPA has proposed several IEC activities for 1992-96 including population education in secondary schools; the establishment and strengthening of State level IEC committees for planning, coordination and monitoring of population IEC activities; the training of DPA's IEC personnel; and further sensitization of policy makers, religious leaders and traditional rulers in support of the National Population Policy.

World Bank is funding several IEC projects. A project with the Health Education branch of the PHC is intended to ultimately increase family planning related knowledge, attitudes and practices

through the strengthening of the health education infrastructure. A project with the Department of External Publicity and Public Enlightenment of the FMOI will focus on public awareness activities in support of family planning and a project with the Population Education Department of the Nigerian Educational Research and Development Council (a parastatal under the Federal Ministry of Education) will develop and test a primary school level family life education program.

Expansion of services, public and private must be accompanied by an IEC campaign which will provide the educational and motivational impetus for service acceptance, as well as awareness of service availability. There are many potential opportunities for AID to collaborate with Nigeria's public and private sectors and with other international donors in health and population related IEC activities. For example, both public and private sectors need training in materials development for the promotion of PHC and family planning services. Health care/family planning providers in both the private and public sectors need training in counselling and personal communication skills. Curricula for these training activities have already been developed by FHS/IEC for family planning and could easily be adapted to include PHC. These combined curricula could then be incorporated into ongoing training of trainer programs such as the one in Niger State. AID could also collaborate more with ARHEC to train people. In addition, AID could collaborate with advertising agencies and employers in the private sector to promote health and family planning messages. Much more work is needed to involve the mass media in health and family planning promotion activities. The most effective and most appropriate approach to expanding IEC activities in Nigeria would be a regional one. There is also great potential to work with both UNICEF and UNFPA in many of the areas described in this section.

4. Policy

The public sector policy initiatives of the current administration are actually putting into practice (1) a budgetary as well as philosophical emphasis on primary health care, (2) decentralization of authority for PHC within the national health system to nearly 600 local government areas, and (3) cost recovery for drugs at all levels of the system. The GON is also developing an initiative for the rational management of acute respiratory diseases, one of the few countries in the region to address a major source of mortality and inefficient resource use. Evolving policies towards AIDS and nutrition also appear sound. The provision of family planning services through the PHC program is part of an explicit GON population policy. These are positions which A.I.D. has traditionally supported.

An underlying theme of these initiatives is an emphasis on making the health system more accountable to its clients. The federal role includes setting technical standards for how care

should be given for different common conditions. These standards generally represent the consensus of an expert group. As part of the quality-related activities discussed previously, USAID can assist the federal level to refine its standards based on actual application by lower-level health workers. Standards should not be unnecessarily complex; they should include practical details such as how to counsel a patient, and define care in concrete, specific terms. USAID can also assist in adding direct measures of patient satisfaction and compliance, drawing on an extensive U.S. experience in this area. USAID support of an improved supervisory hierarchy focused on the quality of care would also address the government's concern about accountability.

B. The Private Sector

The private sector has been underutilized by donor agencies, at least in recent years, partly due to the attitude of distrust on the part of the public sector, and partly due to the complexity and lack of readily accessible (or known) mechanisms to channel assistance to the multiple categories of private providers, NGOs and commercial entities. However, it appears that very recently the Nigerian FMOH and some donors have begun to think seriously about creating or renewing public-private partnerships. USAID's experience with family planning in the private sector is a notable exception to the recent hesitancy to work with the private sector.

Now that the primary health care system has been firmly established and both its strengths and weaknesses recognized, there appears to be more receptivity on the part of the FMOH to recognizing and working out mechanisms to engage the private sector. Although skepticism exists on all sides, with public officials viewing commercial providers as being influenced solely by profit motive, and private providers being wary of government bureaucracy, there is increasing openness on both sides. USAID's assistance during the next five to seven years should capitalize on and build upon the confluence of this new attitude and the vibrant, entrepreneurial spirit present in Nigeria.

Private provision of health care includes the commercial private sector - pharmaceutical and other manufacturers and distributors, private health facilities, groups and individual practitioners (modern and traditional), and generally large industrial employers (petroleum companies, beverage distributors and other manufacturing and processing concerns); as well as the not-for-profit private sector, which includes many non-governmental (NGO) service providers (i.e. mission hospitals) as well as international, national and local service and community groups, and a growing number of women's organizations. Each of these major categories of private providers is described below.

1. Non-profit institutionally-based service providers

Mission and other NGO hospitals have a long history of providing health care in Nigeria, as illustrated by the proportion of services still delivered by CHAN institutions. In spite of this long and continued service, there exists an attitude within the public sector that this system is less permanent or sustainable than the government system. Recent and growing economic constraints, however, will continue to put increased pressure on the public sector to find ways to incorporate the NGO system into the health delivery system. Public sector service providers have relied on NGOs (specifically Planned Parenthood Federation of Nigeria) to provide family planning commodities in times of shortage, for referral for VSC, and have demonstrated the potential for a productive partnership by sharing clinic space. USAID should explore ways to assist the government in fostering these partnerships, as well as working directly with NGOs in delivering information and services in family planning, primary health care and AIDS prevention and control. Mechanisms such as CHAN and National Association of Non-Governmental Organizations of Health (NONGO) or other umbrella organizations should be sought out as means of reaching NGO providers with in-service training and commodities.

2. Community and service organizations

Rotary has become synonymous with Polio-Plus and the immunization campaign in Nigeria, and local Rotary clubs are also known for their support of other health sector activities. Many other service organizations with national and international networks are also active supporters of health care at the local level. There are many other regional or local community groups such as the community development authorities which may or may not be accessible through existing networks, and religious organizations. Local religious leaders are being recognized by many health and family planning advocates as particularly effective means of information, education and communication (IEC).

Women's organizations have also been discovered or rediscovered by government and international organizations, and there are proliferating and overlapping groupings of such organizations, including those groups incorporated into the Better Life for Rural Women umbrella supported by the current military government (through First Lady Babangida and the wives of the military governors), and those associated with the National Commission of Women's Societies. In addition, there are local women's organizations and cooperatives such as religious groups, market women's organizations and coops which could be strengthened or supported as a means of informing, promoting and/or delivering family planning, health and AIDS prevention messages and services.

Very specific groups of high risk individuals such as groups of commercial sex workers have been particularly effective means of reaching members at high risk of sexually transmitted diseases including AIDS with both information and condoms. This approach has occurred in Nigeria and neighboring countries.

Market women have been successful in social marketing and community based distribution of family planning products. This approach has made it possible for women who would otherwise not have the time to visit a local clinic or who wish to maintain privacy (from their partners) to avail themselves of family planning methods. The Association for Reproductive and Family Health based at University College Hospital at Ibadan is a non-governmental organization that has pioneered in training of market women in distribution of contraceptives and in strengthening of women's organizations through management training, orientation in provision of services, creation of income-generating activities and operations research activities.

USAID should develop systematic mechanisms of reaching, strengthening and utilizing the many and varied community based organizations to test new strategies for promotion and delivery of primary health care, family planning and AIDS prevention. This can be accomplished through umbrella organizations focusing on IEC, CBD and operations research (OR). Whether this approach should be regional in focus or specialized by type of activity should be explored in depth in the design phase of project development.

3. Commercial private sector

Private health providers in Nigeria include a large and growing number of trained modern health professionals (physicians, nurses, midwives, pharmacists, etc.) who operate as solo or small group practitioners, as well as a variety of trained and untrained traditional practitioners such as traditional birth attendants, herbalists and medicine vendors. Modern practitioners can be reached with health information through a variety of methods including detailers, professional organizations and accrediting bodies. These mechanisms appear to be underutilized but are being rediscovered along with other mechanisms of delivering information of public health importance to the private sector. Examples of effective attempts to reach private practitioners include provision of family planning commodities through nearly 6000 private health providers and service delivery sites. Africare has recently mounted a program to incorporate private providers in the PHC network in several LGAs. This experience is premised on the assumption that private providers are motivated to give good care as well as to make a profit, and that these two are compatible, and not competing, objectives. From this experience and others, it is also clear however, that private practitioners must be adequately oriented in order to see prevention as a non-competing objective (e.g. private midwives may view family planning as a means of

reducing demand for deliveries; or practitioners advocating family planning might fear the loss of clients who see family planning as a threat to traditional values). Means of reaching private providers with orientation, training commodities, etc. include the use of professional societies, as is being explored by UNICEF, and provision of family planning through private nurse/midwives associations in eight states. Professional societies such as the Society of Obstetricians and Gynecologists and the National Association of Nigerian Nurse Midwives (NANNM) can be used to disseminate information through existing channels (journals, meetings) as well as to develop in-service training, for example. Drug detailers provide another mechanism for reaching the private sector with information, although this mechanism is more likely to reach pharmacists rather than physicians and nurses working in non-institutional settings. Other means of reaching the private practitioner should be explored in project design. Existing and new mechanisms for reaching traditional birth attendants and other traditional health providers should also be further investigated.

4. Employer-provided services

An area that has not been sufficiently explored in previous USAID funded projects (or other donor-assisted activities) is employer-provided health and family planning services. While the modern industrial sector only employs a small number of workers in Nigeria, this group is extremely important to reach with AIDS prevention messages, since salaried male employees with disposable income and increased mobility frequently practice high risk sex (many partners, including commercial sex workers). Employer-provided services for family planning have also been popular in many countries in industries employing many women, because of reduced absenteeism. Employers providing health care benefits can reduce costs by introducing preventive and early treatment programs. Examples of such programs that might serve as models include experiences in two parastatals in Nigeria: Nigerian Telecommunications (NITEL) and the National Electric Power Authority (NEPA). In addition,the experience of three gasoline corporations, National, Total and Mobil, which have trained staff to become family planning providers should be reviewed. These companies receive their commodities through the Transport Workers Association Chapters, or directly from Sterling Pharmaceutical. The feasibility of incorporating both information and services into employer-based programs should be thoroughly investigated.

5. Social marketing and community based distribution

Introduction and promotion of subsidized preventive health commodities through commercial channels is underway for contraceptive commodities and with condoms for AIDS prevention. Special efforts must be made to reach consumers at the lower end of the economic scale, compatible with the definition of social marketing. Currently the "Right Time" condom does not target this

audience and might more appropriately be considered a commercialized product. Both the FHS and Population Services International (PSI) have learned a great deal from experiences so far, but many obstacles must be overcome to increase both sales and cost effectiveness. Market imperfections (corruption, adulteration of drugs and other products, lack of regulation and enforcement) make it imperative that social marketing efforts are systematically designed and executed. Nevertheless, well-targeted marketing of selected products and concepts, coordinated with public and private sector IEC campaigns, could be effectively carried out. Potential products to be marketed to support USAID programs include contraceptives, insecticide-impregnated bednets, condoms for AIDS prevention, ORS/ORT (including feeding during diarrhea and breastfeeding practices).

Social marketing can be done through a variety of channels, including registered commercial outlets (pharmacies and shops), patent medicine vendors and community based distributors (market women or other village-based distributors). An innovative approach to selling condoms, for example, is the National Oil Company mini-mart program. The assessment team has learned anecdotally of both successes and failures of CBD efforts. Market women programs and experience with women's groups appear to be successful when accompanied by adequate orientation, training and supervision. Although some market research activities (NIGERBUS) were conducted prior to the launch of the social marketing program for contraceptives, systematic studies should be carried out to base the design of new efforts on previous experiences in CBD, and in particular to assess the potential for integrated (health and family planning) services.

C. Fostering Public Private Partnerships

The assessment team was struck by the many possibilities for increased partnerships between the public and private sectors in health care in Nigeria. However, the team is aware that additional efforts are required to insure safety and quality of care delivered through the private sector. This requires standard-setting, regulation, and enforcement by the public sector in several areas, including training and licensing of health practitioners, accreditation of health institutions, and regulation of pharmaceutical and medical products. Mechanisms are in place for some of these areas, but it appears that their strengths and weaknesses have not been systematically studied. A more systematic study of private health services in Nigeria is recommended, to include a review of oversight mechanisms. (This study should also examine the private health insurance industry, an area which was not investigated by the assessment team.)

D. Summary of Approaches/Recommendations

1. The FGON should be assisted in fostering partnerships between public and private service delivery mechanisms, including reviewing and strengthening oversight mechanisms.

2. NGOs should be utilized to a greater extent to provide training and deliver services.

3. Women's organizations should be supported and used to test new strategies for promotion and delivery of primary health care.

4. Replication of and support to parastatal organizations such as the Association for Reproductive and Family Health (Ibadan) is strongly encouraged to reach the "hard to reach."

5. Professional organizations should be tapped to reach the private provider.

6. Social and commercial marketing programs in health and family planning need to be developed more and expanded. Special emphasis should be placed on integrated programs and in particular community based distribution.

7. Flexible umbrella mechanisms should be developed and/or supported to channel support to NGOs and other private providers for IEC, service delivery, and operations research.

8. A systematic study of private health services in Nigeria, to include a review of oversight mechanisms, is needed. The study should also examine the private health insurance industry.

V. USAID/NIGERIA IN THE 1990s

This assessment has reviewed the various subsectors in health and population and has outlined actions to be taken in upgrading the quality of services in the public sector, some of which will affect the private sector, and in greatly expanding the availability of services in the private sector. To achieve these ends, several parallel courses of action are recommended for USAID/Nigeria. Keeping in mind the mandate of the assessment team, to outline actions for USAID for the next five to seven years, the team recommends a number of **immediate actions** to be undertaken within existing projects or mechanisms over the next two years to lay the groundwork for the next five years and to prepare for a **new integrated health and child spacing program/project** to be put in place during that period as a follow-on to the current FHS and CCCD projects. The team observed the same or similar gaps and system failures in each of the major subsectors studied (child survival/ primary health care, family planning, and AIDS prevention and control) and identified similar responses based on A.I.D.'s strengths, experience and comparative advantage. On the basis of this analysis, we believe strongly that an integrated approach is timely and offers the greatest opportunity for impact. The team also recommends several policy issues which could be addressed through **non-project assistance**, either under the current Primary Health Care Support Program, or under a follow-on NPA agreement. The team believes, however, that given the substantial role of the World Bank in the health, population and nutrition sectors in Nigeria, USAID's most valuable contributions can be made through projectized assistance.

Immediate actions:

1. A number of studies should be undertaken **in preparation for the new program/project**, including the following:

To increase the knowledge base of the private sector

a. Survey the private health sector and study oversight mechanisms (including assessment of potential for private sector participation in oversight; e.g., in drug testing, etc.);

b. Study commodity import barriers for contraceptives and other health commodities;

c. Study feasibility of local manufacture of additional drugs, biologicals (as also recommended in the World Bank study on health financing);

To develop a strategy to improve PHC implementation

a. Study primary health care management improvement needs at the LGA level;

b. Examine the Federal Technical Facilitator system, the youth corps and other mechanisms for communicating with and providing technical assistance at the LGA level.

2. Several new activities should be supported with a combination of mission buy-ins and central funds:

- Support several nutrition studies and activities requested of A.I.D. as part of the World Bank project preparation activity;

- Initiate breastfeeding promotion activities within the current mission buy-in to Mothercare;

- Support urban EPI initiative, within the context of CCCD;

- Increase condom procurement for AIDS control and increase support for social marketing of condoms for AIDS, and introduce social marketing of other contraceptive products (perhaps within new private sector family planning activity);

- In the planned PID preparation efforts for the private sector family planning and AIDS projects (and any other on-going design efforts) give serious consideration to moving toward preparation of a single PP for an integrated program/project (see below).

3. Additional emphasis should be given to the following areas within the existing mission projects (FHS, CCCD):

To improve and simplify management systems

a. Ensure single system for commodity logistics and management;

b. Ensure integrated HIS/MIS for family planning and health; help refine PHC HIS system and ensure incorporation of commodities tracking system into system over time.

To improve LGA health systems

a. Support operations research on decentralization issues and on service delivery issues tied to concepts of quality of care;

b. Expand CCCD studies of quality of care and extend studies to support systems such as supervision and logistics;

c. Disseminate lessons learned from model LGAs, e.g., through the epidemiological bulletin; use this vehicle (and any others available) to disseminate information other than strictly epidemiological information, in particular increased attention to service delivery issues;

d. Initiate strengthening of health management training programs immediately by supporting development of teaching cases based on CCCD and FHS experience and expertise.

To remove barriers to action

a. Help resolve ORS packet size, production and promotion issues;

b. Use (and expand wherever possible) existing mechanisms to support local research and dissemination of information on AIDS in Nigeria to influence opinion leaders and increase awareness of the AIDS epidemic throughout the health system.

New integrated health and child spacing program/project

The new program/project should provide support for the public sector in its role of standard-setter and provider of oversight and to the private sector as a means of expanding service delivery in all of the subsectors examined by the assessment team. The specific actions to be actively considered are grouped below as public, private and joint activities.

1. Public sector support should be focused largely on systems-strengthening activities which will affect each of the sub-sectors within the health system, and should focus on the following areas:

- mechanisms to ensure the relevance and impact of technical training by focusing training on competency outcomes and problem-solving; one possibility to explore is the establishment of zonal/regional training of trainers centers based on the Niger state model; the experience with the FHS training network should also be examined and considered for further expansion/replication;

- assistance to focus health management training programs on supervision and other aspects of management specific to the Nigerian health system;

- support to institutionalize quality assurance within the health system;

- Support for policy development through policy studies (health insurance, local production, etc.), expansion of RAPID-type dissemination of policy issues, and other means of providing data to decision makers;

- support for immunization sustainability, possibly through a grant to UNICEF.

2. Private sector support should focus on the following:

- social marketing of contraceptives, condoms for AIDS, ORS, impregnated bednets for malaria prevention, etc.

- training/integration of private providers in delivery of correct treatment of malaria, diarrhea, ARI, STDs, as well as expanding on training provided to private sector providers of family planning through FHS;

- Creation/strengthening of umbrella mechanisms for funding NGOs, other groups (women's organizations, religious leaders, professional organizations, research groups) to deliver services, provide IEC, and carry out operations research in family planning, AIDS prevention, and child survival/primary health care;

- Support of employer-provided services, particularly in AIDS prevention and family planning promotion and provision.

3. Support should be provided in the following areas **to strengthen public and private sector institutions simultaneously** and **to foster public-private partnerships**:

- Building/developing of IEC capacity (strengthen the ability of the public sector to access private sector resources);

- Fostering operations research by public and private-sector researchers and strengthen mechanisms for dissemination of results of research and pilot activities (such as the model LGA experience);

- Consideration of regional strategies/subprojects as an alternative to or in addition to the approach of working in selected states/LGAs;

- Ensuring availability of family planning commodities and AIDS condoms to all providers, public and private.

Non-Project Assistance

Policy issues which could be addressed through non-project assistance include the following:

Licensing of non-medical personnel to prescribe, dispense and deliver selected contraceptives and drugs, including insertion of Norplant by nurses and mid-wives, insertion of IUDs by nurses, distribution of orals through non-formal outlets

Financing initial purchase of stocks for drug revolving funds at LGA level in exchange for improvements in regulation of drug manufacture which will allow for local procurement of drugs

Financing for facilities and vehicle maintenance at LGA level based on maintenance plan

Support at state level to improve PHC referral system (anything that does not overlap with World Bank resources)

<u>What we are not recommending</u>

Indiscriminate technical training; (what training is supported should be targeted to private sector and to focused management-oriented training in the public sector)

Water and sanitation (except in context of democratization) because of the involvement of multiple other donors in this sector and because programs are carried out largely outside of the health sector

Broadscale food and nutrition programs (outside of the health sector)

Support to the public sector which can be obtained from World Bank (population, health systems fund), WHO/GPA (AIDS policy, etc.), UNICEF, others.

VI. SECTOR SUMMARIES

The following Sector Summaries analyze briefly the current situation, on-going programs and problems and issues for A.I.D.'s consideration. The analyses form the basis for recommendations for A.I.D.'s program over the next 5-7 years and discuss further exploration needed for project development.

Nutrition

Overview:

The 1990 Nigeria Demographic and Health Survey, the most recent and comprehensive anthropometric survey in the country, documents high rates of stunting (low height for age, reflecting chronic malnutrition) and very high rates of wasting (low weight for height) among children 3-36 months of age throughout Nigeria. Nigeria's overall rates of stunting and wasting equal the worst levels reported to date in Africa DHS surveys and show serious cause for concern, particularly compared to Sahelian countries such as Mali and Senegal, which have a less diversified food resource base and much lower levels of undernutrition. (See graphs.) The Northeast and Northwest regions have the highest rates of stunting and wasting, with wasting higher than 10 percent. According to CDC's Nutrition Assessment Manual, "rates over 10 percent have been seen in crisis situations and indicate the need for rapid intervention if excess morbidity and mortality are to be prevented." What is not known because of lack of time series data is whether the situation described in the DHS data is a "chronic emergency," or a relatively worse situation because of weather, economic, or other conditions present at the time of the survey. Most observers believe the nutrition situation in the north to be a chronic problem.

Risk factors for childhood malnutrition in Nigeria include rural residence, low level of mother's education, lack of safe water and environmental sanitation. Boys and girls appear to be equally affected. Although breastfeeding is widely practiced in Nigeria and the large majority (92 percent) of infants are breastfed for more than nine months, as revealed in the DHS survey the prevalence of exclusive breastfeeding is almost non-existent. Furthermore, some 30 percent of infants under 3 months of age who are breastfed are also given a bottle. These findings are very serious, since a child who is not exclusively breastfed has a 25 fold risk of dying from diarrhea and a 4-fold risk of death due to respiratory illness, compared to an exclusively breastfed child. In addition, 42 percent of children surveyed 7-9 months and 33 percent of those 10-12 months have not yet been introduced to solid or mushy food, when ideal age at introduction of weaning foods is 4-6 months.

High maternal death rates and a high incidence of malnutrition among pregnant and lactating women are reported from other sources. The incidence of low birth weight of an estimated 25% (UNICEF) also reflects, in part, the poor nutritional status of pregnant women. Anemia is as well a common problem among Nigerian women and children. Prevalence of micronutrient deficiencies is not well described, but the general view is that micronutrient problems are closely associated with general protein and calorie deficiencies.

Many of the problems affecting Nigerian children and women today are linked to poverty. The current economic crisis has widened the gap between food and nutrition security requirements and the availability of resources at the national, community and household levels. According to FAO, although there has been a slight increase in agricultural production in Nigeria over the past few years, there has been a steady increase in food prices, as well as a steady decline in per capita food availability, due to rapid population growth. In Nigeria cereals contribute 47 percent of the total calorie supply, roots and tubers 25 percent, fat 17 percent, and protein about 9 percent.

Dietary habits and feeding practices vary according to region and ethnic group. Millet, sorghum, rice and maize are consumed in the savannah areas of northern Nigeria, while roots and tubers (e.g., yams, cocoyams and cassava) constitute the main staples in the forest regions of the South. Roots and tubers are generally consumed in combination with legumes, leafy green vegetables, meat or fish and various seeds. Peanuts and cowpeas are widely consumed in the South and fruits are eaten when they are in season. There is increasing evidence that a large segment of the urban population (including school children) depend on street foods for their major meals. Protein intake is reported to be higher in the savannah areas than in the forest zone.

On-going Program

To date nutrition efforts have been largely uncoordinated in the government. A National Committee on Food and Nutrition was recently formed as the coordinating body for the development of a national nutrition and food policy and a $50 million nutrition proposal for the World Bank. The committee is composed of representatives from all Ministries, the universities, professional associations and the private sector concerned with food and nutrition issues. With technical assistance from the World Bank, USAID and UNICEF, the committee has drafted a work program for the project preparation, consisting of a comprehensive package of preparatory activities, studies and pilot activities. It is anticipated that each of the participating donor organizations will fund certain of the preparatory activities.

In addition, UNICEF plans to build on previous efforts in household food security, including the introduction of new and improved

varieties of planting materials (improved cassava varieties, soybean seeds, and palm oil seedlings), training of women farmers in new technologies for food processing, storage and marketing, and facilitating access of farmers' groups to land, credit and extension services. The new UNICEF project will operate in 46 model LGAs and will include food production, food processing and storage, food and nutrition policy development, and infant and young child feeding, as well as operational research as a basis for food and nutrition policy development.

A.I.D. has supported several centrally-funded nutrition activities in Nigeria, including an important pilot project, entitled Dietary Management of Diarrheal Disease, whose objective was to identify and test a dietary regimen for diarrheal diseases. A weaning food (eko elera) was developed as a result of this pilot activity. A.I.D. (through the PVO child survival grants) has also provided funding for a child survival/nutrition project in Imo state. Project activities include community-based production of a weaning food in one area, growth monitoring and promotion, and nutrition education, combined with immunizations.

Recommendations

For the World Bank project preparation USAID has been asked to support the following activities:

- Further analysis of the DHS survey data;
- Integration of nutrition and child feeding into the Nigeria CDD program, including comprehensive work in breastfeeding and child feeding;
- Private sector involvement in weaning food production and marketing;
- Vitamin A assessment and support;
- Growth monitoring and promotion;
- Analysis of the Integrated Household Survey for Use in Development of a National Nutrition Policy;
- Maternal nutrition.

Most of these activities are areas in which A.I.D. has some comparative advantage among the donors and which are related to the health sector, the area in which A.I.D. has greatest experience and which A.I.D. plans to continue to support in Nigeria. The assessment team believes USAID should plan to concentrate its efforts in nutrition over the longer term (following the medium-term preparation activities which A.I.D. has been assigned over the 1992-93 period). The area of likely concentration for USAID over

the longer term is the area of breastfeeding promotion, including promotion of correct breastfeeding and feeding practices in the management of diarrheal disease. The team believes that A.I.D. should not support growth monitoring activities on a wide scale, and that A.I.D. has no comparative advantage in supporting household food security programs in Nigeria (which are more appropriately conducted through other sectors; e.g., agriculture and rural development, in which USAID does not plan to be involved in Nigeria).

Maternal Health

Overview

The maternal mortality ratios in Nigeria are very high with estimates ranging from 700 to 1600/100,000 live births. The causes are eclampsia, sepsis, obstructed labor, hemorrhage and unsafe abortion. These outcomes stem from early marriage and pregnancy, close birth spacing, inaccessibility of services and where services are available, underutilization. The poor health and nutritional status of women and poor maternity services are reflected in the high neonatal mortality rates. A majority of these deaths are due to neonatal tetanus resulting from low immunization rates and unclean birthing practices. The determinants of a woman's choice of maternal services is not clear, but a potential topic of research. According to the 1991 DHS, 35% of births in the last 5 years were to mothers who received no antenatal care, and 46.4% were with no tetanus toxoid protection.

There are other factors which contribute to the health and well-being of women during their reproductive years. Circumcision of female children in order to prevent promiscuity is still practiced in some communities, although there is no medical support for such a belief. During the reproductive years, this procedure often results in obstructed labor and severe hemorrhage. Early marriage followed by pregnancy before the growth process has been completed can result in prolonged or obstructed labor which can then result in the development of vesico vaginal fistula (VVF). VVF can also occur in more mature women if they become victim of labor mismanagement. In Sokoto State, it has been estimated that 40/1000 women admitted with VVF died.

Sexually transmitted diseases (STDs) and resulting reproductive tract infections (RTIs) including pelvic inflammatory disease also affect women during their reproductive years. The most serious consequence of these illnesses is infertility. The difficulty in controlling these diseases in Nigeria results from inadequate

personnel and laboratory facilities, lack of finances to support prevention and treatment programs, and inaccessibility to the facilities for rural women because they exist largely in urban areas.

There appears to be a decline in breastfeeding practices in Nigeria. The majority of women delay breastfeeding until 6-24 hours after birth and frequently introduce supplemental sugar solutions during this period.

A major constraint to effective delivery of maternal and child health services is the lack of awareness among women and their preference to use untrained birth attendants. This results in a failure to recognize obstetrical emergencies and referrals which do not occur in a timely fashion. Problems exist with maintenance of equipment and tracking of supplies. There are reported shortages of gloves, mucus extractors and other items in the public sector, leading to unsafe practices. Sterilizers and delivery instruments are not available in sufficient quantity, nor are the instruments necessary for provision of safe family planning. The fee recently imposed for maternal care is a major deterrent to utilization. Other barriers include distance and travel costs to services, and language and cultural differences between the clients and the staff.

Ongoing program

Support for the Government's work in this area to date has come largely from UNICEF, Ford Foundation and Africare. UNICEF has focused on the training of traditional birth attendants and has strengthened the Schools of Health Technology. In addition, UNICEF supports studies ongoing in breastfeeding promotion and baseline studies of micronutrients. They further support MCH activities by assisting with the implementation of the Bamako initiative. Baseline surveys will be conducted in eight states over the next five years. Ford Foundation has been more active in women's reproductive health through the support of local governments, NGOs and women's organizations. Africare has launched a two year project with the Imo State Ministry of Health. The aims of this project are to study the causes of maternal mortality and morbidity and to promote the use of services by a trained provider. These promotional activities will be carried out at the community level by the Village Health Worker.

Recommendations

As a critical element in the success of A.I.D.'s and FGON's efforts in family planning and child survival, safe motherhood and reproductive health in general should become a key component. In order to achieve this, the team offers the following recommendations which would be mostly accomplished through technical assistance:

1. Upgrade health provider skills at the community and secondary levels to recognize and respond to obstetrical emergencies.

2. Upgrade community knowledge concerning problems arising during pregnancy.

3. Upgrade providers ability to provide education and counseling.

4. Increase focus on maternal nutrition (see section on nutrition)

5. Assess the current breastfeeding practices and increase breastfeeding promotion.

6. Support more research in women's reproductive health, specifically medical sequelae of prolonged or early labor (VVF). Reproductive health research centers could be established at one or more prominent teaching hospitals.

7. Focus attention on prevention, diagnosis and treatment of sexually transmitted diseases. Many women are reached by family planning messages and information who would otherwise not have access to information about prevention of STDs. Every effort should be made to conduct integrated IEC campaigns, and furthermore target the very same high risk groups who are often targeted by family planning efforts.

Acute Respiratory Infections

Overview

Epidemiological data on morbidity and mortality from pneumonia and other acute respiratory diseases in Nigeria is highly incomplete. Available information suggests that ARI ranks among the leading three causes of under-five mortality, along with malaria and diarrheal diseases. In one hospital study, pneumonia accounted for 13-27% of admissions for children under one year over a 6 year period. The team found no reliable estimates for related issues, such as the economic cost of inappropriate use of antibiotics or trends in bacterial resistance that may follow from such abuse.

On-going Program

The FMOH has recognized ARI as a major child survival issue and has sanctioned a national program. National level activities will be groups with EPI and CDD, while locally services will be integrated within PHC. Concrete planning for the implementation of services is presently limited to 5 selected LGAs.

CCCD has provided very limited technical assistance in ARI. One CCCD model LGA, Ife-Central, has been designated for development of an ARI program. UNICEF will support three additional model LGAs where an ARI will be developed. WHO has provided limited training support and important technical guidance.

Recommendations

Basic epidemiological and ethnographic studies are needed on a regional basis. It appears likely that the health significance of ARI will be confirmed. The chief remaining issue is the ability of the evolving health system to implement a new service which is somewhat more complex clinically than other PHC interventions. The development of cost-effective quality assistance approaches for PHC services in general could probably accommodate ARI services once detailed standards are developed. Similar considerations apply to the leading chronic respiratory disease, tuberculosis. A recent World Bank analysis documents substantial economic benefits from the effective treatment of infectious cases. In Nigeria, as elsewhere in Africa, a growing AIDS caseload can be expected to contribute to rising tuberculosis cases in the general population.

Diarrheal Diseases

Overview

Diarrheal diseases are recognized as a major source of infant and child mortality in Nigeria, with an estimated 300,000 deaths annually, about 30% of all deaths in this group. The 1990 DHS found 18% of children under 5 had experienced diarrhea in the two weeks prior to the interview. Cholera is established in the country with nearly 8000 known cases in 1990, growing to more than 50,000 in 1991. The case fatality rate of 13% is more than 10 times that associated with adequate care in other LDC settings. CCCD surveys and other studies have found 27-37% of cases of childhood diarrhea are treated with ORT. Nearly 90% of these treatments are with a homemade sugar-salt solution, reflecting a program policy that officially limits ORS packets to institutional use. The team was unable to identify reliable data on the prevalence of invasive and persistent diarrheas (dysentery). These forms of diarrhea represent a substantial proportion of fatal cases in other countries and are not effectively addressed by ORT.

On-going Program

Diarrheal diseases are managed through the PHC system, beginning with village level volunteer health workers. ORS packets are by policy limited to facilities, but surveys show widespread shortages (63% of facilities in one survey had no stock). Both locally manufactured 600 ml packets and externally provided 1 liter packets

are used. The single Nigerian manufacturer has a capacity of 2 million packets, but private sector distribution channels are largely undeveloped.

Since 1987, CCCD has trained more than 350 health professionals in clinical or program management topics related to diarrheal disease control. A total of 6 operational research proposals were approved in this area and the quality of care was studied and improved in 14 facilities. HealthCom has provided limited technical assistance in materials development. The ADDR project is supporting development of an applied research capacity through four Nigerian universities, and the National Institute for Medical Research. UNICEF has provided ORS packets, but far short of estimated needs.

Recommendations

A number of external advisors have taken issue with Nigeria's sugar-salt solution strategy, citing mixing errors observed in other programs. Direct studies of the quality of care actually received by patients is needed. Corresponding quality assurance mechanisms must be developed if these suspicions are correct. Low public awareness is also a concern. Even with a highly effective sugar-salt program, however, the role of ORS packets is a major public health deficiency in Nigeria. Selective use of packets could be monitored if clinicians are provided with clear criteria for its use. The use of far more expensive intravenous fluids is likely to be reduced by an effective use of packets, and this merits study. The recent outbreak of cholera, with its high mortality rate, serves to reinforce this view. Less visible but potentially important mortality associated with invasive and persistent diarrheas must be addressed. This will require implementation of a more complex case management protocol than that apparently practiced in most lower level facilities.

Finally, the Ministry continues to push for a standard packet size of ORS, urging that the 600 ml measure, encouraged for the home salt-sugar solution, be adopted for packets, either supplied by UNICEF or produced locally. Resolving this issue may be key in getting sufficient supplies of ORS into health facilities. This is an area in which CCCD could be immediately helpful.

Expanded Programme on Immunization (EPI)

Overview

Starting at very low levels of coverage, in 1987 the Ministry of Health began an aggressive campaign to expand EPI services. A total of 10,000 immunization sites were increased to 36,000 by 1990, and a strategy of special vaccination days reinforced routine services. A national vaccination coverage survey in February,

1991, revealed variations among administrative districts. For example, for the third dose of DPT/Polio coverage by age 12 months ranged from 20% in Katsina to 90% in Kwara, with an overall national average of 57%. The national average for measles immunization by 12 months was 54%, representing a relatively low dropout rate between DPT3 and measles immunization starting at 9 months. The largest observed dropout rate was in Lagos state, where measles coverage was at the national average.

DHS data collected in mid-1990 examined a different age group (12-23 months) and bases vaccination status on the ability to produce a vaccination card. Cards were produced for 35% of eligible children.

On-going Program

Vaccine procurement is currently a federal function, along with policy issues. States presently develop strategies, distribute vaccines, and train and supervise LGA staff. LGAs manage and finance local activities, including community mobilization. Decentralization of the PHC system, which is proceeding, has uncertain implications for the EPI program.

Through the CCCD project, USAID has supported continuing development of a national monitoring and evaluation system. The project also provided a $6 million grant to UNICEF, began development of a PHC sentinel surveillance system, provided technical support to training centers, and through the Healthcom project supported the federal health education unit. The CCCD strategy has recently shifted, at the request of the government, towards a focus on six states, concentrating assistance on (1) one model LGA, (2) support for state-wide continuing education activities, and (3) improvement of state-wide health information systems.

UNICEF has given priority to EPI support in its health program in Nigeria for the past eight years, providing critical supplies, vaccines, equipment and even operations support. A reduction in logistic support for EPI is now expected, with expanded support for communications. Rotary International also provides some polio vaccine and logistical support.

Recommendations

The ongoing decentralization of the PHC system and the coming change of government will have an impact on the program that is difficult to predict. The recent growth in program coverage is not adequate to prevent urban measles epidemics, which a number of experts fear are likely if vaccine efficacy proves lower than estimated. LGA capacity to manage and supervise EPI activities remain uncertain.

Family Planning

Overview

The absence of a reliable census in the past twenty years has made it difficult to estimate Nigeria's population or the rate of growth of the population. Best estimates, however, place the mid- 1990 size of the population at 117 million. The estimated current rate of population growth is 3.1 percent per year, which would project Nigeria's population at 159 million by the year 2000 and a doubling in twenty-two years. The determinants of population growth in Nigeria are numerous, including the early age of marriage and/or first birth (28 % of teenagers have begun childbearing); lack of education (57% of women have no education, and these women have an average two more births than women completing secondary education), high illiteracy rates, particularly among women; urban/rural differences in fertility levels (TFR is 5.1 for urban; 6.3 for rural); and one of the most difficult constraints to overcome, religious and cultural resistance to the use of family planning.

The extraordinarily low contraceptive prevalence rates in Nigeria are reflected in the most recent Demographic and Health Survey (DHS) indicating that the percentage of women using family planning methods is 6 percent; only 3.5 percent are currently using modern methods. There is tremendous variation by region and residence with use of modern methods nearly 10 percent in the urban areas, and over 10 percent in the southwest region. However, 75 percent of the population currently resides in rural areas. The projected urbanization over the next ten years estimates a 60/40 rural to urban ratio, making it quite difficult to determine which strategy will achieve the most impact on fertility reduction.

Only 45 percent of women know any method of family planning, and fewer yet know of modern methods. Levels of knowledge of family planning methods parallel the patterns of contraceptive use: seventy percent of urban women and seventy percent of women in the southwest know of family planning methods. And yet, despite the poor knowledge and low contraceptive use, the demand for family planning is high in Nigeria. Sixty percent reported that they either wanted to have no more children, wanted to delay childbearing, or were undecided about when to have another child.

On-going Program

In response to the developmental and economic impact of rapid population growth, the Federal Republic of Nigeria formally adopted the National Policy on Population for Development, Unity Progress and Self-Reliance in 1988. Technical and financial support for the development of this policy was provided in large part by USAID, the World Bank and UNFPA.

The targets set as part of the National Population Policy are quite ambitious, and are indicative of the Government's serious commitment to the program. Nevertheless, such targets may have a negative effect if achieving them requires a considerably larger level of financial commitment than currently available. Not achieving these targets discourages the government from continuing the policy. The targets are summarized below:

- reduce the proportion of women who get married before age 18 by 50% by 1995 and by 80% by the year 2000

- reduce pregnancies to women under 18 and over 35 by 50% by 1995 and by 80% by the year 2000

- reduce the proportion of women bearing more than four children by 50% (1995) and by 80% (2000)

- extend coverage of family planning services to 50% (1995) and 80% (2000)

- significantly increase education of and services to adult males by the year 2000

- reduce the number of children a women will bear from 6 to 4 with a reduction from the present growth rate of 3.3 % to 2.5% (1995) and eventually 2.0 (2000)

-reduce infant mortality to 30 per 1000 live births (2000)

-make family planning information available to all adolescents by the year 2000

-provide 75% of rural communities with social amenities by 2000 in order to stimulate and sustain development

- family planning services available to all who voluntarily wish to use them

The implementation strategy outlined includes family planning and fertility regulation, maternal and child health, the role and responsibilities of men in family life, the role and status of women in development, children and youth, population education and information, spatial distribution of the population and population training, data collection and research. The coordination of activities relating to the national population policy is the responsibility of the Department of Population Activities (DPA) which was established in 1988. The government's position is that the lead role in population should be made by the health sector. Hence, with the transfer of responsibility for primary health care to the Local Government Areas, family planning activities in the public sector will be entirely dependent on the level of commitment to family planning on the part of those who deliver primary health

care at the local level.

A.I.D. is by far the largest contributor in the population sector in Nigeria. The structure of USAID's program results from years of many contractors working in Nigeria in the population and family planning field, necessitating a consolidation of efforts and activities to increase efficiency and avoid duplication. The current bilateral project, Family Health Services, began in 1988. Four components comprise the project: Public Sector (Pathfinder), Private Sector (FPIA), Policy and Evaluation (JHU/IIP), and IEC (JHU/PCS). This program is a $67 million project, the completion date of which was recently extended to June 1994. The project's targets include raising the national contraceptive prevalence rate to 12 percent with 70 percent of acceptors served through the private sector.

A. Policy and Evaluation (P & E)

The P & E component of Family Health Services (FHS) has as its objectives the strengthening of the public and private sector capacities to develop policies and strategies; the development of positive support from influential groups through constituency building; documentation of policy and program acceptability through support of innovative, short-term evaluative strategies.

B. Information, Education and Communication (IEC)

The IEC component has the role of developing activities/information for the public and private sectors in order to increase awareness of and acceptability of family planning. This is accomplished through radio/TV spots, music campaigns, print materials, development of a national family planning logo, and the provision of training to public/private interest groups and service and sales agents.

The IEC component is working closely with the Ministry of Information to provide integrated health messages which incorporate family planning, ORS, MCH and nutrition. Regional level activities include the production of a docudrama intended for rural Yoruba audiences. IEC is supporting PPFN to develop audiovisual materials which will target youths, radio projects and additional music campaigns. Other organizations that IEC works with include the Nigeria Television Authority, National Council of Population Activities, NERDC, and the Federal Ministry's Health Education Branch.

C. Service Delivery (Public and Private)

The service delivery components of the FHS project are responsible for the provision of equipment, training of family

planning providers and the establishment of service delivery points in both the public and private sectors. FHS/Private is further responsible for the forecasting, tracking and distribution of the family planning commodities and has introduced the social marketing of contraceptives in Nigeria. Together, FHS/Public and FHS/Private have trained over 7000 public health personnel, clinicians and established a network of commercial vendors.

Training curricula need to be adapted to the specific family planning environment of states or zones. In areas where family planning use is very low, the training should be oriented toward outreach and IEC activities. Where contraceptive prevalence is higher, training should focus on more effective and long term methods such as VSC and NORPLANT. Now that thousands have been trained under the auspices of FHS, a system of trainee follow-up needs to be developed. Strategies for refresher training, focus on quality of care and client counselling are required.

UNFPA: UNFPA is proposing a $35 million country program (1992-1996) aimed at achieving 15 percent prevalence rate of modern contraception through various approaches: strengthening of the national structure for planning, coordination, monitoring and evaluation of family planning efforts; the promotion of female literacy and income generating activities for women; AIDS prevention and population education.

World Bank: The World Bank has just launched a $70 million loan in direct support of implementation of the National Population Policy. The primary focus will be provision of population-related services and information. Other projects will mobilize the commitment to the National Population Policy, and will strengthen required elements in support of the policy such as financing, coordination, monitoring, evaluation and research. Seven subprojects have been identified for Phase I of the project:

- Integration of family planning into maternal and child health - strengthening of management and technical capabilities of the Family Health Division of the Federal Ministry of Health. There will be an LGA selected in every state for these activities

- Promotion of family planning through health education

- Public enlightenment on population

- Tertiary centers for reproductive health

- Family life education in the primary schools

- Monitoring of policy impact through sentinel survey system

- Integration of population into planning and budgeting

Other donors who contribute to the efforts in population include the Ford Foundation, working on innovative approaches to reproductive health, AIDS and other women's issues and IPPF (through Planned Parenthood Federation of Nigeria), whose strengths are IEC and service delivery.

Recommendations

Policy -- It is difficult to evaluate whether efforts in the policy arena have changed the policy milieu or policy implementation in Nigeria. Further uncertainty stems from the forthcoming elections in 1992. Additional support is recommended for the Department of Population Activities for increased orchestration of activities relating to the National Population Policy (working with opinion leaders, sensitization of key groups, mobilization at grass roots level).

IEC -- Despite the success of many IEC programs, lack of knowledge of family planning methods persists in Nigeria. Both awareness and contraceptive use levels vary regionally, hence a targeted approach is necessary in order to ultimately increase services provided.

Service Delivery -- The delivery and promotion of family planning services observed during the field visits was "passive". This was the case even in the south, where more inroads have been made in family planning. Until religious organizations, community groups, women's clubs and professional societies are brought on board, it seems that use of family planning methods will not be actively encouraged, nor will there be a true integration of family planning services into the primary health care system, whereby all those who offer health services are committed to, promote and deliver family planning.

Private Sector -- The efforts of the donor organizations have been largely in the public sector, with the exception of USAID which has placed emphasis on training in the private sector and social marketing of contraceptives. The private sector is USAID's strength and furthermore represents a gap in the other donor's activities. Hence, USAID should focus its efforts in the **private** sector with exceptions being the 1) Federal MIS (in particular, assurance that family planning and MCH remain an integral part of this system), 2) commodities management, and 3) support of management training to service providers and officials at the local level.

AIDS

Overview

Nigeria is at a lower point on the curve of the HIV/AIDS epidemic than most of its African neighbors. The relative lateness of the introduction and explosion of the epidemic has fostered an unfortunate attitude of apathy on the part of Nigerians, and negligence on the part of donors. Recent increased focus by the Federal Ministry of Health is encouraging and promises to foster continued and increased dialogue within the country and with international partners. In no subsector of health and population is it more urgent that this dialogue and new partnerships be built than in AIDS prevention and control.

HIV screening and AIDS testing are still not systematically carried out and reported, although 21 screening laboratories have recently been created with WHO/GPA support and INSERM (French national medical research institute) technical assistance. As of August 1991 94 cases of AIDS had been reported through the formal reporting system; however the assessment team was told anecdotally of many newly identified cases, only some of which appear to make it into documented reports. These cases include those presenting as tuberculosis or STD patients and, recently, pediatric illnesses which are now being identified as AIDS cases. Seroprevalence estimates vary widely according to populations included in the study or data base. The FMOH believes the overall seroprevalence in the general population is 0.5%; a recent study in antenatal patients in Maiduguri documents an increase in seroprevalence from 0.5 to 1.0% in a two-year period.* Studies of high risk populations reveal alarming prevalence of HIV: in high-risk hospital populations prevalence varies from 4-11.1%; while among prostitutes HIV prevalence varies from 4.5 to 19.5%. Of great concern is the fact that rates are doubling every year, and in some cases progressing faster.

Of even greater concern are increased risk factors which influence AIDS transmission in Nigeria. Demographic risk factors include Nigeria's high proportion of the population in sexually active age groups and her rapid rate of urbanization. The economic situation has enormous influence on the spread of AIDS, affecting both rates of practice of high risk behavior (such as the number of women practicing prostitution and the rate of partner change among prostitutes) and the ability of the public health system to respond to the epidemic. In Nigeria today the economic situation fosters both of these factors and therefore encourages the spread of HIV infection. Both the demographic and the economic situations build on behavioral factors which also foster the spread of the epidemic. Traditional patterns of sexual networking legitimize multiple sexual partnerships and therefore contribute to heightened risks of HIV transmission. High prevalence of sexually transmitted diseases

associated with large numbers of sexual partners is both an indicator of HIV transmission and a contributor to ever increasing transmission of the infection; in Nigeria STD prevalence is high, particularly among urban and transient populations.

On-going Program

The public sector response to the AIDS epidemic is consistent with the overall policy of decentralization and integration into the primary health care infrastructure. It is envisioned that at the state level an AIDS Committee will be formed as a subcommittee of the State Primary Health Care Committee, and similarly at the local level an AIDS Action Committee will be formed as a subcommittee of the PHC Committee. To support the states and LGAs, the FMOH will develop programs in the following areas: IEC, epidemiology/surveillance/research, program management, laboratory, clinical care and counseling, NGO coordination. These areas will be mirrored by appropriate units at the state and local level. Since this plan was announced only in August 1991, very little implementation has begun, and the assessment team was unable to find any evidence of AIDS activities or of even any knowledge and awareness among public health providers at the state or local level in areas visited by the team.

Response to AIDS in the private sector has been ad hoc but has demonstrated a great deal of potential for replication and expansion. These programs have received support from various foundations and donors (Ford Foundation, The Canada Fund, UNICEF, the Japanese Embassy, WHO/GPA, and A.I.D. through AIDSTECH.) In addition AFRICARE has been active in AIDS policy development as well as training of NGO personnel in Nigeria through a grant from USAID Nigeria. NGO activities range from the STOPAIDS project in "Car Parks," which provides education and condoms to drivers, transport union leaders, long distance travellers, market women, adolescents, and hawkers; to the Society of Women and AIDS in Africa project supported by AIDSTECH in Cross River State to promote safer sex practices among prostitutes; to a number of proposed activities developed by the Federation of African Medical Students (FAMSA), the Center for Education for the Prevention of AIDS and Drug Abuse (CEPADA), the Prison Officers Wives Association (PROWA), and others. NGO-based AIDS activists are becoming aware of additional intervention programs being tried elsewhere in Africa, such as counseling programs, employer-based programs, and others, and are seeking support to mount additional efforts in AIDS prevention.

Recommendations

USAID's role in AIDS prevention in Nigeria has been limited. The USAID mission recently requested an AIDS sector assessment which has recommended a focus for USAID assistance on support and technical assistance to NGOs, and on provision of condoms and

support in condom logistics and condom cost recovery. The health and population assessment team agrees with the focus recommended in the AIDS assessment but urges that the scale of USAID support be substantially increased, and that A.I.D. also support general IEC for AIDS prevention and consider supporting public and private sector STD control efforts. (N.B.: Specific areas for USAID support will need to be tailored to other donor inputs which will be discussed in upcoming AIDS donor meetings to be convened by the FMOH in early 1992. For example, if Japan pledges support for condom procurement, as they have indicated they might, USAID could focus more on condom logistics and technical assistance for condom social marketing, or on other aspects of the program.)

The recommendation that USAID increase the scale of its support for AIDS control is based on several considerations:

First, the data on AIDS transmission in Nigeria are compelling due to the progression to date and indications that the epidemic will escalate as rapidly and as disastrously as it has in other countries in Africa. In addition, the size and position of Nigeria in the African context argue for rapid and intensive intervention to stem the progress of the epidemic, to the extent possible, in order to avert the worst case scenario for Nigeria and for West Africa. Unless action is taken quickly, Nigeria will follow the pattern experienced in other African countries in which the epidemic has progressed much further, and with even more disastrous results because of the size and position of the country;

Secondly, the activities recommended play to A.I.D.'s strengths in AIDS prevention and control, with an emphasis on support for innovative grassroots-level intervention programs through NGOs, and condom procurement and distribution (and possibly for IEC and STD control); while other donors are better suited to work with the public system on policy development and awareness-raising at the national level, blood screening, training, etc.;

Thirdly, by investing a minimum of $1 million in support of AIDS prevention, USAID/Nigeria can become an AIDS emphasis country and attract matching funds from the R&D/H-funded AIDS Technical Support project, which together will provide a critical mass of financial support for effective NGO activities and condom promotion, as well as provide needed in-country and external technical support from this project.

* (Reference: Kyari; a recent volume of Tropical Geographic medicine.)

WATER SUPPLY AND SANITATION

Overview

A wide gap still exists between water needs and water supply throughout Nigeria. Most people living in rural areas rank water supply as one of three major socioeconomic problems, alongside roads and health. At the end of 1990 only 34 percent of urban and 22 percent of rural inhabitants had access to safe, adequate, or reliable supplies of water. This is almost the same level of coverage as at the start of the International Drinking Water and Sanitation Decade in 1980.

The inadequate quantity and quality of water supply and sanitation expose mothers and children to health hazards and infection. DIARRHEAL DISEASES and dehydration are second to malaria as a cause of infant and child morbidity and mortality.
CHOLERA cases have increased dramatically in Nigeria with case reports increasing from 7,674 cases and 990 deaths in 1990 to 48,200 cases and 6,354 deaths (case fatality: 13 percent) during the first eight months of 1991. GUINEA WORM is the most widespread of the water-borne diseases endemic to Nigeria with over 300,000 individuals reported infected in 1990. The prevention of these diseases depends on adequate water supplies, sanitation, hygiene education and wastewater treatment.

On-going Program

Nigeria was a signatory to the International Drinking Water Supply and Sanitation Decade (1981-1990) and participated in the Global Consultation on Water for All by the year 2000 in New Delhi in 1990. The Nigerian government has committed itself to making available rural drinking water supply and sanitation in terms of resource allocation.

In 1981, the Federal Department of Water Resources started a national borehole program as part of the International Drinking Water Supply and Sanitation Decade. The Federal Ministry of Agriculture, Water Resources and Rural Development drew up a master plan for water supply in 1984. Overlooking sanitation and limited intervention to reticulated systems for communities of 20,000 inhabitants and over, the Plan excluded smaller rural communities that contain up to sixty percent of the population.

In 1986 the Government set up a Directorate for Food, Roads and Rural Infrastructures (DFRRI) to empower rural areas and reduce the disparities between the countryside and towns. As part of a nation-wide water and sanitation program, the government has

mandated all states to provide at least 250 communities with water points during each phase of operation. By the end of the first phase in mid-1989, the program had reached 5,000 of the 111,000 communities in the country.

The Federal Ministry of Water Resources was created in January 1990 from the former Ministry of Agriculture, Water Resources and Rural Development. It has the responsibility of formulating national water policy. It is expected to introduce water legislation, coordinate the rational use of water for human consumption and agriculture.

Other Donors, primarily UNICEF and UNDP, have taken the lead in the water and sanitation area in Nigeria, as briefly described below. USAID's role in the sector has been limited.

UNICEF's activities in Nigeria started in 1981 with an investment of $30 million. UNICEF-assisted water projects have helped build the most important body of experience of the sector in Nigeria. Emphasizing provision of low cost and simple water points to rural communities, UNICEF has recently begun preparing training modules designed to transfer responsibility for well operations and maintenance to local communities. In the area of sanitation UNICEF trains artisans and establishes slab construction units with revolving funds.

UNICEF's Master Plan of Operations for 1991-1995 continues to emphasize a strong commitment to increase access to rural water supplies, as well as safe sanitation in 155 LGAs.

The UNDP/World Bank-supported project operating now in Plateau State (and to be expanded to five other states) has a total budget for three years of $3 million from UNDP and matching contribution from the government in local currency. In contrast to UNICEF's emphasis on technology the UNDP/World Bank project emphasizes institutional needs and community capacity development: the project developed a state level committee consisting of DFFRI, Ministry of Health and various water boards and authorities; extensive time is being spent in re-orienting state and LGA staff to develop community management capability; training of LGA staff in supervision and quality control and developing the capabilities of extension agents to serve as trainers of community committees; hygiene education and community participation are cornerstones of the project.

Recommendations

Developing both private and public sector institutional capability to implement a sustainable water project has not been an easy task. Urban water supply has received the greatest emphasis in Nigeria. The government's recent decentralization policies have shifted all responsibility for rural water to the local governments -

sanitation has always been the mandate of the LGAs. However, the exact institutional arrangements that will enable local governments to effectively implement this responsibility need to be established.

Community capacity development for management of water points and for cost recovery is beginning to be recognized as a critical aspect to sustainability. In the past and still going on in the rural areas, water points provided by government agencies have borne all capital costs as well as operations and maintenance costs. The awareness that this is an untenable situation is growing. Thus, providing training to communities in management skills and developing creative financing options is of vital importance.

There are many improved water sources that are incomplete, broken, and neglected. This represents an important investment that is wasted and unutilized. Rehabilitation of such facilities with adequate training in operations and management can greatly increase the numbers of water points in rural areas.

Community participation and hygiene education and the role they have in ensuring effective primary health care is often overlooked. Political pressures to meet water coverage points rather than focus on sustainability and continued utilization, has been one reason for this neglect. Other reasons include the lack of resources and properly trained staff at the local government areas.

Given the comparative advantage of other donors in the Water and Sanitation sector, USAID's role, in terms of the health sector, should be limited to hygiene education within the context of support to primary health care. In connection, however, with the democratization initiative, water and sanitation projects offer an excellent opportunity for community involvement and participation in management and financing of good water systems. In any such effort, emphasis will be needed on upgrading the capacity of LGAs and extension staff in community management, hygiene education methodologies, as well as operations and maintenance management. Potential involvement of A.I.D. in this area would need to be explored carefully, especially given the large role to date of other donors.

TROPICAL DISEASES

Overview

The general pattern of tropical diseases in Nigeria is dominated by malaria, yellow fever, Guinea worm and onchocerciasis.

MALARIA is the most frequently reported out-patient illness in Nigeria affecting nearly everyone older than six-months, with peak intensity and mortality in children ages 1-4. It is estimated that half of all Nigerians experience at least one episode of malaria each year. In 1989 nearly one million cases of malaria were reported by public health facilities. Malaria is found year round in all of Nigeria except in the Northern Savannah and in the central plateau where it is seasonal.

YELLOW FEVER epidemics occur every few years, often affecting many thousands in acute outbreaks with high mortality, despite the availability of an effective vaccine. The most recent outbreak of yellow fever started in the forest fringe of Benue and Cross River states in 1986, and moved into the areas of southwestern Nigeria during 1987 and 1988. In the first year of the epidemic, 1,102 cases of yellow fever and 374 deaths were officially reported, but sample survey results suggest that 30,000 subclinical cases, 9,000 clinical cases and 5,400 deaths actually occurred in 9 villages of Benue state. In urban areas 1,786 cases and 1,497 deaths (case fatality rate: 83.3 percent) were recorded in 1988.

GUINEA WORM is widespread in Nigeria occurring mostly in areas where there is poor water supply. Anambra, Kwara, Imo and Ondo are the most heavily affected states. In 1987/1988, the first of three nationwide prevalence surveys was conducted to identify affected villages and determine the extent of the problem. The number of cases reported declined by 38 percent between 1987-1990, dropping from 653,626 cases in 5,879 endemic villages to 394,082 cases in 5,238 endemic villages. This reduction is attributed primarily to improved drinking water supplies and health education.

ONCHOCERCIASIS is found primarily in the riverain areas. It is most prevalent in the Nigerian Belt (Kwara, Oyo, Niger, Benue, Plateau and Bauchi). Prevalence rates of up to 70 percent have been found in sample populations. It is estimated that 7 million Nigerians are exposed to the disease, 2.8 million infected, and over 125,000 blind due to years of chronic infection.

On-going Program

MALARIA

Within the FMOH, the National Malaria and Vector Control Division (NMVCD) provides nationwide coordination of malaria control activities. Under the NMVCD, the National Malaria Technical Committee meets semi-annually to review program development and disease/treatment trends. Individual LGAs, in coordination with the State government, are responsible for implementing control programs with local resources and personnel.

Guidelines for the control of malaria in Nigeria were developed by the Technical Committee and approved by the National Council on Health in 1989. The strategic approach emphasizes increased availability and quality of early diagnosis and treatment of malaria and encourages the widespread adoption of personal protection measures, such as impregnated bednets.

The major non-governmental program addressing malaria in Nigeria is the CCCD project, funded by USAID and implemented by CDC. CCCD's Malaria Control Program is one of three major components of the CCCD initiative. CCCD/FMOH malaria control activities are concentrated in 9 "focus states", including: Anambra, Lagos, Niger, Oyo, Plateau, and Sokoto. Focusing on training of personnel, particularly at the state and LGA level, in malaria diagnosis, treatment, patient education, and referral, CCCD helped the FMOH develop a new malaria training module for mid-level and peripheral health workers. The model was pretested in Niger state and subsequently approved for use throughout the country.

In the area of training for health education, the Nigerian Government developed with the African Regional Health Education Center (ARHEC) of the University of Ibadan a month long course for LGA level workers on health education for malaria control.

YELLOW FEVER

Although there has been a safe, effective vaccine for yellow fever for more than 50 years, the expense of vaccination campaigns and logistical problems has significantly limited its availability in Nigeria. Pilot efforts by the FMOH and CCCD to include the yellow fever vaccine as part of EPI activities in select areas has dramatically increased the numbers of Nigerians vaccinated against yellow fever. Expansion of this program to the national level is expected.

GUINEA WORM

The FMOH and the Carter Center's Global 2000 Project established a Federal Secretariat in 1988 to coordinate the Nigerian Guinea Worm Eradication Programme (NIGEP). The Federal Secretariat under NIGEP

is responsible for providing technical assistance and resources, informing the states on Guinea worm policies and procedures, and coordinating international activities.

Each state has its own GWEP, which is very much decentralized, working through the LGAs to the village level. NIGEP works closely with the Primary Health Care programs in the LGAs to ensure that active cases are properly treated and recorded. In the past year NIGEP facilitators have worked with each state NIGEP Task Force to train nearly 7,000 enumerators who carry out monthly village level surveys.

UNICEF, in collaboration with Global 2000, focuses its Guinea worm efforts in 10 Nigerian states. Its primary strategy is to promote clean drinking water through health education and development of water supply and storage systems. UNICEF and Global 2000 have jointly trained over 6,000 village-based health workers in health education for Guinea worm control and 1,700 health workers in prevention and management; supported the production of safe storage jars; and established LGA monitoring and surveillance systems.

The Peace Corps has recently provided 7 volunteers to work with NIGEP at the LGA level to engage in health education and surveillance activities.

Onchocerciasis

The National Onchocerciasis Control Program (NOCP) is coordinated by the FMOH's Communicable and Infectious Disease Division. State ministries of health have established their own control programs, which are highly decentralized with limited federal supervision and support. The majority of active control projects are small and organized by international donors/NGOs who provide resources and technical expertise.

Distribution of the drug ivermectin has become the most common control measure in Nigeria. Virtually all vector control efforts have been stopped. All distribution programs must be approved first by the FMOH and then by the Mectizan Expert Committee at the Carter Center before the drug is made available for distribution.

A.I.D. is sponsoring an ivermectin delivery program in 4 West African countries. As part of this program AFRICARE is developing delivery systems in Adamawa and Taraba states. AFRICARE also has a privately funded activity in Kwara state. UNICEF has ivermectin distribution activities in 4 states and is working in 12 endemic LGAs.

Recommendations

The main constraints to controlling vector-borne diseases in Nigeria are: logistical problems, the difficulty of coordinating

state, LGA and donor efforts in Nigeria's highly decentralized health system and the lack of trained personnel to meet the needs of the primary health care system.

Much of what A.I.D. can do to support progress against these diseases can be accomplished within the context of actions being recommended to strengthen primary health care in general. For example, support for improvement of the management information system should include emphasis on an integrated disease surveillance system. Support for logistics improvement, training and management efforts to strengthen PHC delivery at the LGA level, and supervision at the state level can provide support for the fledgling malaria control program. Finally, curriculum development and training of trainers for primary health care can increase awareness of prevention measures.

Beyond that is the need to assure that treatment guidelines developed by the FMOH, for example in malaria, are known and used throughout the public health system, and that these are more widely publicized for use by the private sector. Wider involvement of the private sector in malaria control could be stimulated through social marketing efforts focusing on the use of impregnated bednets.

At a macro level, coordination of donor input in this area and water and sanitation is important in increasing impact and coverage of disease control measures, as is improved intersectoral planning to ensure that disease prevention and control measures are built into development projects.

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Dr. A. Anumnu, Project Coordination Unit
Mrs. C.A.Ukadike, Family Planning Coordinator, State Ministry of Health
Dr. J. Njemanze, MCH Coordinator, Imo State Ministry of Health
Mrs. Martina Ezeama, Deputy Family Planning Coordinator
Mr. Dan Smith, Project Advisor, Africare
Mrs. C.L. Oriuwa, Project Manager, Africare
Dr. C. Okoro, Medical Officer, Anara Basic Clinic, Isialabano LGA
Mrs. R.A.Durugo, Principal Nursing Sister, Anara Basic Clinic, Isialabano LGA

Other sites:

Gabriel and Elizabeth Hospital and Maternity
Obohia Community, Ahiazu Mbiase LGA
Chinedu Maternity, Umuokirha Community, Ahiazu Mbiase LGA

Benin City, Edo State

Mrs. Grace Sagay,Deputy Family Planning Coordinator, State Ministry of Health
Mr. Godwill Ogboghodo, Head, Political Science Department,
Mr. Nwabueze Achime, Political Economist, University of Benin
Mr. Wambo, Institute for Public Administration Extension Services
Mr. Osa Osemwota, Director

Other sites:

Ekadalor area rural clinic
Benin Hospital Family Planning Unit

Ilorin, Kwara State

Dr. M.I.Ibrahim, Commissioner of Health
Dr. S. Adenin, Director General of Primary Health Care Services
Dr. Afakayi, Ilorin Teaching Hospital, Family Planning Unit
Dr. Femi Adewoye, Chairman, Department of Business Administration

Minna, Niger State

Dr. N. S. Zagbayi, Commissioner of Health
Dr. Z. Wanbai, Director of Primary Health Care
Mrs. Mary Baba, Family Planning Coordinator

Abuja

Dr. O.J. Ekanem, National Malaria and Vector Control Division, PHC,